

Pioneer Core

The Pioneer Core is Carroll's general education curriculum. Pioneer Core expands student learning beyond the major area of study, providing not only depth and breadth, but also a series of cross-cultural learning opportunities. The knowledge and skills developed through Pioneer Core are essential for students to reach their full potential as educated citizens in diverse communities and in an ever-changing work force. Upon completion of Carroll's Pioneer Core, students will achieve the following learning outcomes.

1. Demonstrate an understanding of a culture different than your own.
2. Critically evaluate global issues from multiple cultural perspectives.
3. Understand and analyze multiple philosophical, ethical, and religious positions held by persons within their own and other cultures.
4. Understand the methodologies germane to the fine arts, humanities, social sciences, and natural sciences as well as their larger social context.
5. Analyze and integrate material in a field outside the major area of study.
6. Develop and defend a position that demonstrates logical reasoning both orally and in writing.
7. Demonstrate information fluency by gathering, analyzing, and synthesizing information using emerging technologies and traditional media.

Students accomplish these learning outcomes through a Cross-Cultural Component and a Distribution Component.

Cross-Cultural Component

The Cross-Cultural Component is a four-course series through which students explore the study of culture:

- Cultural Seminar
- Cross-Cultural Development
- Cross-Cultural Experience
- Global Perspectives Colloquium

Distribution Component

The Distribution Component of the Pio Core consists of courses that are outside a student's academic major area of study. The Distribution Component includes two main features: four introductory-level General Education 1 (GE1) courses that encourage disciplinary breadth and one higher-level General Education 2 (GE2) course that fosters depth outside the major. There are five Distribution Areas, and each academic major is housed in one of these areas: Fine Arts, Humanities, Philosophy/Ethics/Religion, Social Sciences, and Natural Sciences.

Please note: When a student changes his/her current major to a major in a different distribution area, it will be the responsibility of the student to ensure that all the requirements of the new distribution area are met.

GE1 courses

Students must complete four GE1 courses: one from each of the four Distribution Areas outside of their major area of study. Students are not required to take a course from the Distribution Area in which their major is housed (e.g., a Chemistry major need not take a GE1 course from the Natural Sciences Distribution Area).

GE2 courses

A student must take one GE2 course. A GE2 course must be from the same discipline as one of the GE1 courses previously taken (e.g., a GE1 English course and a GE2 English course). A GE2 course builds upon knowledge from a previous GE1 course and provides depth in an area of interest outside a student's major. Some GE2 courses have a prerequisite. Students should consult the catalog descriptions for courses that interest them to determine whether this might be the case.

Cross-Cultural Development

Some GE1 and GE2 Distribution courses are also designated a Cross-Cultural Development (CCD). Students must take at least one CCD course. Students may satisfy the CCD requirement and a Distribution Area requirement in a single course.

A listing of GE1 and GE2 courses by Distribution Area follows. See also those that have a CCD after the course description, they satisfy the Cross-Cultural Development requirement. More courses, especially GE2 courses, will be added to this list.

CCD Courses

GE1 and GE2 Courses

Fine Arts General Education

Humanities General Education

Natural Sciences General Education

Philosophy/Ethics/Religion General Education

Social Sciences General Education

Cross Cultural Experiences

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Cross-Cultural Experience (CCE)

The Cross-Cultural Experience (CCE) is a signature component of Carroll's Pioneer Core curriculum, which is characterized by an integrating theme of culture and a requirement for domestic or international cross-cultural immersion. This experience challenges students to apply classroom-based examinations of culture and to interact with cultures other than their own in an off-campus setting. [Click here for the CCE website.](#)

The Cross-Cultural Experience has three parts: preparation, immersion and reflection. Research has shown that all three parts are required to ensure that students get the most from the CCE. The immersion portion requires at least 60 hours of meaningful interaction with a culture other than the student's own. Students may choose from a variety of choices to fulfill the CCE requirement. Options include local, domestic and international experiences:

- International study abroad, for a summer, winter, semester, or academic year program
- CCS 300 (2 credits) or NCE course (4 credits)
- Discipline-specific courses approved for CCE credit

Study Abroad as a Cross-Cultural Experience: Students in good academic standing with at least 16 completed Carroll University credits at the time of participation may apply for approval to enroll in a study abroad program. Approved study abroad students remain enrolled at the university during the semester or academic-year study abroad period. Applications for study abroad programs are due at least one semester prior to the semester in which the student intends to study; however, students are advised to begin the process by contacting the Office of Global Education a full year ahead of their intended departure. A listing of the many and varied study abroad opportunities is available on the "Study Abroad" tab on the Carroll University CCE webpage.

CCS 300 Courses (2-credit): CCS 300 courses are typically short-term travel courses led by Carroll faculty. CCS 300 courses include both a classroom component and a travel component and generally take students off-campus during the summer, winter or over spring break. Prior to any travel, students must participate in classroom preparation. Students also will engage in post-experience reflection activities. CCS 300 courses are worth two academic credits and are taught by Carroll University instructors. In most cases, the instructor travels with the students and continues to teach the course while at the immersion site.

New Cultural Experience Courses (NCE) (4-credit): NCE courses are worth four academic credits and are taught by Carroll University instructors. NCE courses include both a classroom component and a travel component and generally take students off-campus during the summer or winter. Each course has a specific academic focus along with a particular emphasis on understanding new cultures. Travel is for a minimum of two weeks. Prior to travel, the students spend a semester in academic preparation.

NCE Courses

Eligibility: Students interested in a CCS 300 or NCE course must submit a CCE application through the CCE website and have a minimum of 16 completed credit hours from Carroll University at the time of participation. Enrollment is determined by the Office of Global Education which reviews student records to ensure that the applicant is in good standing related to both academics and conduct. Students must have completed CCS 100 or CCS 199 and must have completed or be concurrently taking their CCD course.

Fees: The cost for CCS 300 or NCE courses varies according to the program. Additional information for CCE courses is available on the Carroll University CCE webpage or from the Office of Global Education in Kilgour Hall.

Course Offerings: Course offerings are typically announced each spring for the next academic year. Up to date information can be found on the CCE website.

NCE Courses

CCD Courses

Organization of Majors in Distribution Areas

Fine Arts

Through practice and study, students will learn about the

Philosophy/Ethics/Religion

Students will analyze multiple philosophical, ethical, and religious positions relative to

Natural Sciences

Students will learn theoretical and practical methods of the natural

creative process that is central to disciplines found within the Visual and Performing Arts.

Art

Graphic Design

Music

Music Education

Music Theatre

Music Therapy

Photography

Theatre Arts

Humanities

Students will examine literary and historical artifacts to understand diverse cultures and their development over time.

English and Writing

History

Spanish

individual and social life and acquire means to enter conversations about ethics, values and meanings.

Religious Studies

Social Sciences

Students will learn theoretical and methodological approaches to the study of societal dynamics, and use that knowledge to analyze contemporary social issues.

Accounting

Business Administration

Business Economics

Communication

Criminal Justice

Educational Studies

Elementary Education

Finance

Global Studies

Health Care Administration

Management and Leadership

Marketing

Philosophy/Politics/Economics

Physical and Health Education

Political Science

Psychology

Public Health

Sociology

Sports Administration

sciences and will apply these methods to problems through laboratory or field experiences.

Actuarial Science

Animal Behavior

Applied Physics

Biology

Chemistry and Biochemistry

Computational Science

Computer Science

Environmental Science

Exercise Science

Health Science: Diagnostic-

Medical Sonography

Health Science: Radiological-

Technology

Information Technology

Mathematics

Neurodiagnostic Technology

Nursing

Academic and Program Policies

Academic Appeals

The Academic Steering Committee (ASC) acts as the appeal body for questions related to academic policy, probationary questions, exemptions, etc. An academic petition form (available online or from the Registrar's Office) must be completed and returned to the Registrar's Office to initiate the appeal process. The petition form should carefully explain the nature of the request and include the appropriate signatures. All appeal decisions by the Academic Steering Committee are final.

Course grade appeals and appeals of sanctions for academic dishonesty are heard by the Student/Faculty Ethics Committee. Appeals should be made through the Office of the Associate Dean of Academic Affairs. The procedure for appeals is found in the Student Handbook.

Academic Honesty

Cheating on examinations, plagiarism, improper acknowledgment of proper sources in written material, and inaccurate claims of work done are serious offenses in an academic setting. These forms of unethical behavior will be subject to severe disciplinary action.

The Carroll University Policies and Procedures on Student Academic Integrity can be found in the Student Handbook (available on the University's Web site) under the section entitled Academic Policies and Procedures. Instructors indicate penalties for academic dishonesty in their course syllabi.

Additional Undergraduate Degree

With the recommendation of the college dean, a student already holding a baccalaureate degree from Carroll University or another institution may, under certain conditions, qualify for and be awarded an additional baccalaureate degree. Those conditions are as follows:

At least 32 credits beyond those used to achieve the initial degree must be undertaken and successfully completed at Carroll.

All of the university general education requirements in effect at the time of the enrollment for a second undergraduate degree must be met, either through transfer or in subsequent study at Carroll.

All of the program requirements for an additional major field of study must be met either through transfer or in subsequent study at Carroll.

Classification of Students

Class Standing	Credits Completed
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Sophomore Standing	28
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Junior Standing	60
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Senior Standing	92
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Classroom Usage Policy

Faculty:

In order to keep our classrooms clean and in order for all classes, faculty are responsible for the following:

- Wiping the whiteboards and logging out of the computer.
- All furniture, desks, chairs and/or tables need to be placed back into the basic classroom set up if moved during class.

This ensures that faculty and students can begin the next class with the same basic set up and clean white boards.

Students:

We want to be able to have classrooms unlocked for student use for studying and group activities. In order to ensure that we are able to give students this opportunity students must adhere to the following:

- All students are required to put the classroom back to its original classroom set up.
- Ensure that all chairs/desks/tables are in the original classroom that they belong in.
- All writing must be erased from the whiteboards.

Early Registration Policy

Overview

True to its mission, Carroll University faculty and staff are committed to delivering a superior education to each and every student. The foundation of this education is high quality classroom instruction, whether that classroom be in-person or online. Owing to this, it is imperative that all students attend the courses to which they are registered. In addition, our students seek to expand and enhance their education through participation in our honors program, music and theatre, and athletics. We support all of our students in their co-curricular endeavors.

Per this policy, honors students, student-athletes, and those participating in music and/or theatre productions are granted access to early registration for the following term's courses (typically one day prior to the commencement of registration for the general student population). This helps to ensure that these students will participate fully in the classroom experience while minimizing absences owing to participation in university sponsored events.

Honors students will be the first to register. They will be granted early access to the registration system from 9:00 am -12:00 pm on the day immediately prior to general student registration. Those students participating in athletics, music productions, and/or theater productions will be granted early access to the registration system from 12:00 pm-5:00 pm on the day immediately prior to general student registration.

Exceptions

Registration for the following courses will be limited to those students who have a minimum of 40 earned credits (ie 40 credits earned prior to the current term). Early registration is available to those students named above if they have 40 credits earned:

CMP 112 and 114

RELI 220

PHIL 106, 194, and 206

(The above courses are those that often fill immediately during upper class student registration. There a variety of reasons for this, however, as a result many students push these courses to later in their academic plans. We need to ensure that these students have access to the above courses in order to complete their academic plans, thus the exceptions).

University Sponsored Event Student Absence Policy

Overview

Carroll University is committed to making opportunities available for students to engage in a full range of curricular and co-curricular experiences that constitute a Carroll education. Certain co-curricular events including, but not limited to, are: intercollegiate athletic competition, performing arts events, associated media opportunities and academic/co-curricular conferences and competitions. These are considered University Sponsored events.

Per this policy, students may not be penalized for missing class in order to participate in university sponsored events, provided the student shared, with the course instructor, a copy of their University Sponsored Event Student Absence Form. Students are responsible for notifying their instructors in advance of their participation in such events with exception made for events rescheduled due to weather or other unforeseen events. Students must understand that missing multiple classes can negatively impact their academic performance. For absences owing to religious observances, please refer to the policy on religious accommodations.

Implementation

It is the Carroll University students' responsibility to communicate with instructors any circumstances that conflict with class attendance. The student is expected to manage class absences using the following guidelines, which apply equally to all courses:

1. All students are expected to be in class unless otherwise excused for a University Sponsored Event.
2. A University Sponsored Event Student Absence Form, indicating the planned dates and times a student will miss class, will be given to the student by the event sponsor so that they may present two copies to each instructor (One signed form for both the student and the instructor). Each student will share these forms during the first two weeks of the semester or as soon as they are made aware of their participation. Students will give their instructor one copy to keep and a second copy must be signed by the instructor and then returned to the university sponsor.
3. Student-athletes *will not miss classes for practice* except when a team is traveling to an away-from-home contest and the practice is in conjunction with the contest. Activities considered practice include:
 1. On-field/court practice
 2. Preparation and conditioning times (e.g. weight training, running, etc.)
 3. Rehabilitation, taping, etc. (time spend in athletic training room)
 4. Meetings (including individual or group film sessions)
4. Performing Arts students *will not miss class for rehearsals*, with exceptions for the following:
 1. Tech Week and Dress Rehearsals - these are mandatory
 2. University media opportunities
 3. Specific rehearsal session for off-campus performances or tours
5. Post-season competitions (e.g. CCIW, NCAA tournaments) that are not predetermined that conflict with student classes or labs will be excused with proper notification from student.
6. University sponsors (i.e. coaches/directors) will not penalize students for missing practices due to conflicts with regularly scheduled classes for which students are enrolled.
7. Students are responsible for submitting all assignments on time. In addition, students are responsible for making arrangements, in advance, for any test, quizzes, and labs to be missed. Should a student fail to notify, in advance, the faculty of a planned university sponsored absence, normal grading/absence policies for the course will be followed.
8. For absences resulting from re-scheduled events (typically caused by inclement weather or unforeseen circumstances), students will communicate with their instructors as soon as possible. University sponsors will make a best effort to provide a REVISED University Sponsored Event Student Absence Form in such circumstances.

9. For all other academic or co-curricular events please contact the Provost for approval of University sponsored event designation.

Medical or Personal Leave

If a student must be absent from a health sciences program for an extended period of time for medical or personal reasons or jury duty, written notice must be given to the respective program director prior to the leave, if possible. Written notice must also be given to the program's director prior to the student's return to the program. If applicable, the student may be asked to verify that s/he has complied with the program's technical standards with previously imposed conditions for leave. In addition, remediation or course repetition may be required of the student dependent on the length of the absence. Any course, laboratory, outside learning experience, or clinical practicum/internship makeup or remediation is dependent upon academic and clinical faculty and facility availability.

Policy on Reapplication to a Health Sciences Program

The Policy on Reapplication defines the process by which students may seek readmission to a health sciences program following dismissal of the student from the program for failing to maintain good academic standing. Readmission candidates may apply for readmission to the program no sooner than one year and no later than three years from the date of dismissal. Readmission candidates may exercise their reapplication option only once. Readmission candidates applying to the program must submit the materials required of all applicants for admission. In addition, they must provide transcripts relating to any education experiences completed since leaving the program. A letter indicating why the readmission candidate believes s/he will succeed academically and technically in the program must accompany application materials. Candidates readmitted to a health science program must comply with the progression standards in the current catalog.

Policy on Student Records

Several information sources are maintained concerning each student at Carroll University: the admission file, the permanent academic record, the student personnel file, the placement file, the alumni file, the publicity file, and the financial aid file for students applying for aid. A student may review the applicable files, except for material provided in confidence, with a professional staff member under the provisions of the Family Educational Rights and Privacy Act of 1974 (FERPA) as amended.

FERPA¹ gives certain rights to parents regarding their children's educational records. These rights transfer to the student who has reached the age of 18 or is attending school beyond the high school level. Generally the school must have the student's written permission to release any educational information to anyone, including the student's parents. The law does allow for the following exceptions: school employees who have a need to know; other schools to which a student is transferring; certain government officials to carry out lawful functions; accrediting organizations; persons who need to know in cases of health and safety concerns.

Schools may disclose "directory information" or information published in the student directory unless the student signs a Right to Privacy form each time a student registers. Carroll University has adopted a policy that will only allow the disclosure of directory information if the party asking for the information can identify himself/herself in writing (this Carroll University policy is within FERPA regulations, which allow individual institutions to determine their own policies concerning directory information).

FERPA also grants the student the right to review those records, files, etc., that are maintained by the University. The student must make an appointment with the University Registrar to do so. Students may challenge any information they believe to be inaccurate. If the University official does not agree to modify the information, the student may file a written appeal and has a right to a hearing.

¹ Furnished by the United States Department of Education, fact sheet.

Returning Students

After the lapse of one or more semesters, students seeking to return to Carroll on a full-time or part-time basis must reapply. Students who have been suspended from the University and have become eligible to apply for readmission must do so through the Office of Admission. The Admission Committee reviews each application and determines the current status of the student and the conditions of readmission. When a student is reaccepted into Carroll University, they will be required to follow the most recent catalog to determine graduation requirements.

Student's Right to Know

Campus Security Act of 1990: Requires the disclosure of data on crimes committed on campus and campus safety policies and procedures. Click here for a copy of Carroll University's annual security report.

Equity in Athletics Disclosure Act: Requires disclosure of data on participation rates and financing men's and women's sports in intercollegiate athletic programs at coeducational schools. It also requires data on revenues, total expenses and operating expenses of intercollegiate athletic programs. Data is available on request.

Graduation Rate: Current and prospective students have the right to request the institution's graduation rates. These rates are available in the Office of Admission and online at: <http://nces.ed.gov/collegenavigator/>.

Withdrawal Policy

Students who wish to withdraw from all classes must file an Official Withdrawal Form with the Office of Student Success. If a student is not able to visit the office (due to illness, emergency, etc.), they may contact the Office of Student Success to communicate their intent. The office is located in Voorhees 331 and the phone number is 262-524-7360.

Military Leave and Withdrawal

The University recognizes the sacrifices that those in the armed services make while serving our country. We are proud to have these individuals as a part of our campus community and therefore maintain the following policy:

- The student must provide the Registrar's Office copies of official military orders. The student will then be automatically withdrawn from all of his/her courses for the given semester. The academic record will reflect the non-punitive "W."
- The student will be eligible for a full refund for tuition and course fees for any courses that are not completed during that semester/session.
- Any room and board charges will be prorated based on the date in the semester the student is required to leave and the remaining amount will be refunded.

Communication with Students

The university provides access to email and mailboxes for all students. These methods of communication are consistently used by the university in an effort to contact students. It is expected that residents will check these communications daily.

Independent Study

Independent study is offered by most programs and is subject to the same general university regulations that govern any course offering. Such courses are taken for academic credit (one to four credits) with the appropriate grading from an assigned instructor. The format of study may vary and is formulated in consultation with the assigned instructor. An independent study may be taken only with consent of the instructor and the college dean and must be arranged with the instructor before registering. In general, a student may count a maximum of four independent study credits toward graduation. An approved Permit for Independent Study form, available at the Registrar's Office, and a syllabus must be presented at the time of registration.

Individually-Designed Major

A student interested in designing such a major will, in consultation with an adviser qualified and willing to assist, work out a program of study based primarily on regularly-taught courses at Carroll. The degree requirements of either the Bachelor of Arts or Bachelor of Science will be incorporated into this plan. The entire plan must be submitted to the Academic Steering Committee for review. It will reject any plan that creates staffing problems, violates the principle of the need for balance between concentration and breadth of study, or for any other reason is judged to be academically unsound. It will not impose a general rule about the number of courses in the major, except that no student will be permitted to take more than 40 credits within a program, except in professional programs. All proposals for individually-designed majors must be submitted to the Academic Steering Committee no later than one year prior to the intended date of graduation. A planning and approval form for the Individually Designed Major is available in the Registrar's Office.

International and Domestic Off-Campus Study Opportunities

The Office of International Education (OIE) provides Carroll students with opportunities to enhance the awareness of their own cultural conditioning, assumptions and perspectives by bringing them in contact with people who have backgrounds significantly different from their own. Two types of benefits result from such an experience:

1. Students develop a more vivid consciousness of the kinds of social, political, economic and religious forces that have contributed to the formation of their own self-concepts, and to the structure of American society as a whole;
2. students develop a growing understanding of other cultures and customs.

Most international and many domestic study abroad/away activities meet the Cross-Cultural (CCE) requirement of the Pioneer Core curriculum.

Carroll offers a variety of short-term study abroad options, with a worldwide geographic scope that spans all continents but Antarctica. Carroll's NCEP (New Cultural Experiences Program) and CCS 300 courses are developed and taught by Carroll faculty. A description of approved NCEP and CCS 300 courses can be found on the CCE web page, [click here](#).

Many semester and academic year study abroad opportunities exist for students who want longer, in-depth academic experiences in another country. Students in good academic standing who have earned 16 Carroll University credit hours at the time of participation may apply for enrollment in study abroad. Most students study abroad during their junior or senior year, although some students find that international study during their sophomore year is a better fit for their program of study. Students who are approved for study abroad must meet the requirements of their chosen program. Approved students will remain enrolled full time at Carroll University during the time they are abroad. Additional information about each of the options, including costs and the application is available on the Carroll University CCE Website.

Internships or Work-Oriented Experiences

Students are urged to participate in a work-oriented gateway experience to prepare for their work in the world. Most work-oriented experience will be related to the student's major or minor field and generally will be taken during the senior year. Internships and work-oriented experiences are under the direct supervision of a member of the Carroll University faculty. Such

courses are taken for academic credit with the appropriate grading (letter grades or S/U) from an assigned instructor. Each program will determine whether an internship or work-oriented experience will be offered. These courses are subject to the general regulations that govern any course offered, including registration within the time period allowed for an on-campus course. A student must have permission for an internship or work-oriented experience and present an approved Permit for Internship upon registration.

Majors

In order to be eligible for a Bachelor of Arts, Bachelor of Science or Bachelor of Music Education degree, a student must complete one major and earn a minimum 2.00 grade point average (Carroll and transfer credit) in all courses attempted for the major.¹ Generally majors require no more than 64 credits within a program (exclusive of credit for internships).² This regulation does not prevent a student from earning more than 64 credits, which would then permit the student to earn additional course credit in the major. The requirements for satisfying a specific major may be found under each program listing in the course descriptions section of this catalog. When a student has decided on a major field, he/she should consult with a faculty member in that program and make the necessary arrangements with the Registrar's Office. A student who elects to complete a second major should have an adviser from that program also. Students declaring more than one major must declare one major as the primary major.³ This declaration must be specified when a student applies for graduation.

The primary major will determine which degree is earned (B.S., B.A., B.S.N., or B.M.E.). A course may count toward two majors as long as the majors are in different disciplines. If a student has more than one major, however, each major must have 32 credits unique to each major. The student also may select a minor. A student may also count the same course in the major toward a minor as long as the minor is in a different program. The major must have a minimum of 32 unique credits in the major, and the minor must have 16 unique credits. In programs that have multiple emphases, a student may declare only one emphasis. A transfer student is expected to complete in residence at Carroll at least one-fourth of the number of credits required for the stated major field(s) of study.

Footnotes

¹ Some majors that must meet outside standards for accreditation may require a higher GPA.

² Required supporting courses are included within the 64-credit limit. Majors within professional programs may exceed 64 credits.

³ Specific programs designate major support courses that are required for primary majors only.

Required supporting courses are included within the 64-credit limit. Majors within professional programs may exceed 64 credits

Minors

Students may also decide to select one or more minors from a broad range of fields. While a minor typically requires fewer credits than a major, it provides students with a coherent course of study in the field. Descriptions and course requirements are listed in the program sections. At least one-fourth of the total credits required must be taken at Carroll with a minimum of a 2.00 grade point average. A student may not select a major and minor in the same discipline. A course in the minor may also count toward another minor as long as each minor has 16 unique credits.

Method of Course Delivery

Carroll University offers several different methods of instruction. Please see the descriptions below.

Traditional and/or Enhanced

Course instructor and students meet at specified days, times, and location. All or nearly all instruction and course content are presented in the classroom. Some technology may be used for instruction and delivery of course content. This can include posting content (related to learning goals) to MyCourses, use of discussions, blogs or wikis (either through course management system or other), or using technology in the classroom (e.g., clickers).

Hybrid

Hybrid courses are noted in the catalog using the following section letters; HY, HX, HZ, etc.

Twenty-five percent (25%) to seventy-five percent (75%) of instruction takes place in an online environment. As noted, physical on-campus meeting time is generally one quarter to three quarters of a traditional course. For example, a course that typically meets 4 hours/week in a traditional course will meet for 2 hours/week in a 50% hybrid course.

Online

Online courses are noted in the catalog using the following section letters; WW.

Instruction is delivered completely online, often through MyCourses.

Typically, there are no face-to-face meetings, though an introductory first meeting may occur at the beginning of the semester and/or for the purpose of proctoring exams.

Repeating Coursework Graded C, D or F at Carroll University

Any Carroll University credit earned with a C, D or F grade may be retaken at Carroll one time only for any given course. Both the C, D or F grade and the repeated grade will be recorded on the Carroll University transcript, but only the last grade awarded will be used in the appropriate grade point calculations. A student may not replace a Carroll University earned C, D or F with transfer credit. A student may not replace Carroll coursework graded higher than a C unless this provision is specifically allowed in program-specific policies.

Repeating Transfer Coursework Graded C, D or F

Any transfer credit with an earned C, D or F may be retaken for credit with a similar course at Carroll University or another accredited institution as approved by the Registrar. Upon matriculation at Carroll University, the student must obtain permission in advance from the Registrar to retake a transfer course graded C, D or F with a similar transfer course or with a Carroll University course. Both the C, D or F grade and the repeated grade will be recorded on the Carroll University transcript, but only the last grade awarded will be used in the appropriate grade point calculations. A student may not replace transfer coursework graded higher than a C unless this provision is specifically allowed in program-specific policies.

Satisfactory Grading Option for Juniors and Seniors

Juniors and seniors have the choice of taking any or all elective courses on a satisfactory/unsatisfactory (S/U) basis. A student shall not be permitted to alter the decision after the first four weeks of the semester. No student may take any course to complete

a general education requirement on an S/U basis. No student may take any course within the major or minor fields, including required supporting courses, on an S/U basis, with one exception: internships or work-oriented experiences may count toward the major or minor even if taken S/U. Students are advised that graduate or professional schools often give less consideration to applicants whose records show this grade option. Satisfactory/unsatisfactory grades will not be included in computing the grade point average.

Amendment - Carroll University Spring 2020 only Satisfactory/Unsatisfactory (S/U) Grading Policy

All students have the option* of taking courses on a satisfactory/unsatisfactory (S/U) basis during the Spring 2020 semester. In addition, for those seniors graduating in May 2020, the convocation point requirement is waived. All other current students will receive one convocation point as credit so they will be able to complete the graduation requirement of eight convocation points. **All students** have the option* of taking courses on a satisfactory/unsatisfactory (S/U) basis during the Spring 2020 semester. See below for guidelines:

- The deadline to switch Spring 2020 courses to S/U is Friday, March 27th.
- The decision to switch to S/U is irreversible.
- S/U grades will not be included in computing the grade point average.
- S/U courses taken during Spring 2020 will not count towards the official policy of 8 S/U credits in total.
- Students are advised that graduate or professional schools often give less consideration or may not accept applicant's prerequisite coursework whose records show this grade option, thus the letter graded option is recommended in these situations.
 - A semester level comment on the transcript will state "spring 2020 courses were completed during a crisis situation."
- Several externally accredited programs have academic progression standards **requiring** specific GPAs and letter grades. In this case, students **must complete their major and supporting coursework graded**. (The registrar will ensure these courses remain graded).
- In the event a grade of "U" is earned in a major/minor course, that course will need to be repeated prior to graduation.
- In the event a grade of "U" is earned in an elective, general education, or major/minor course, no credit will be granted unless repeated satisfactorily.
- Instructions on how to switch your Spring 2020 courses to S/U by Friday, March 27th:

Request S/U Grading

- Email reg@carrollu.edu from your Carroll email account.
- Information needed:
 - Student Name
 - Course Number and Section
 - Student Major
- Registrar will confirm grading change through Carroll email account.

As a reminder, a grade of A, B, or C is considered satisfactory (S). A grade of D or F is considered unsatisfactory (U).

***IMPORTANT NOTE**

Students in enrolled in programs that are externally accredited, have program specific academic progression requirements, or are completing courses as a specific prerequisite for graduate programs are **not able to take major, minor or prerequisite courses** in the S/U format. **Examples include, but are not limited to Athletic Training, Education, Nursing, Occupational Therapy, Physician's Assistant, Physical Therapy, and 2+2 professional programs.** The Registrar's Office will screen courses that can or cannot take a course for S/U grading based on your major and emphasis, however, programmatic changes or external requirement may vary. Please be sure to connect with your advisor and course instructor for more guidance.

Wait List Policy

Closed Classes and Wait List Policy

1. You may now add yourself to a course waitlist through Enhanced Web Registration.
2. If a course that you wish to register for is full:
 1. You will be given a warning that indicates: 'There are no seats available in this section.'
 2. The warning will note how many students are currently on the waitlist for the section.
 3. You will have the opportunity to:
 1. Add yourself to the waitlist using the 'Add to Waitlist' button
 2. Cancel the action by clicking on the 'Do not Add' button
3. If a seat opens in a section you waitlisted for and if you are the first person on the waitlist you will be given a course authorization to add the course and notified via your Carroll University email address. You will have 48 hours to register for the class once this email has been sent. If you do not register for the class within the 48 hour window you will lose your spot on the waitlist.
4. To determine for which course(s) you have been granted authorization to register, access Enhanced Web Registration and check the 'Waitlisted Courses' section. The course(s) you have received authorization to add will now have a 'Move to Current' link listed to the left of the course(s).
5. To add a course:
 1. Click on the 'Move to Current' link
 2. Click the 'Change Waitlisted to Current' button on the new page that opens up
6. **NOTE:** You will not be allowed to waitlist for different sections of a class that you are already registered to take. If you wish to take a different section of a class you will need to speak with the instructor of the section you wish to enroll into and have them provide you course authorization to do so.

Degrees Offered

Abbreviation Name of Degree

BA	Bachelor of Arts
BS	Bachelor of Science
BM	Bachelor of Music
BSN	Bachelor of Science in Nursing
DPT	Doctor of Physical Therapy
MAT	Master of Art in Teaching
MBA	Master of Business Administration
MED	Master of Education
MOT	Master of Occupational Therapy
MS	Master of Science

MSAT	Master of Science in Athletic Training
MSN	Master of Science in Nursing
MSPA	Master of Science in Physician Assistant Studies

Graduation Requirements

Awarding of Diplomas

Diplomas are awarded three times a year (May, August and December) to seniors who have completed all degree requirements. Commencement ceremonies are conducted in May each year.

Seniors who have all degree requirements completed but wish to defer graduation, and those with specific academic deficiencies, will be allowed to participate in Commencement as long as the deficiencies are within the following parameters:

1. A need for one to four additional credits or completion of student teaching that is already in progress.
2. A deficiency of eight or fewer academic grade points.
3. Incomplete grades of from one to four credits.

Students may participate in only one Commencement. Notice of intent to participate in the May Commencement ceremony without the degree being awarded should be filed with the registrar's office at the time the application for graduation is submitted or by April 15. All students who choose not to receive their degree and those with academic deficiencies will receive their diplomas at the next issuance following completion of all required work

Graduating with Latin Honors

Carroll University offers students the opportunity to graduate with honors. For more information regarding one of these honors or to view the criteria for each one, see below.

Phi Kappa Phi

Phi Kappa Phi: Carroll University invites students in the top 7.5% of the junior class and the top 10% of the senior class and graduate programs to join Phi Kappa Phi, the nation's oldest, largest, and most selective all-discipline honor society. Phi Kappa Phi gives its members a lifelong connection to a global network of academic and professional activities, including opportunities to apply for national scholarships.

Delta Sigma Nu

Delta Sigma Nu is the university's honorary scholastic society. Students in the upper 10 percent of the senior class who have completed by graduation 64 letter-graded credits at Carroll and a total of 100 letter-graded credits are elected to membership. The only exception is students on approved off-campus programs where letter grades are not given. Members of the junior class with an overall grade point average of 3.9 or higher who have completed 64 letter-graded credits at Carroll and have been enrolled at Carroll University for at least four semesters are elected to membership.

Graduation Latin Honors

Graduation honors based on the cumulative grade point average (GPA)* are awarded to those students who have completed all requirements for the degree: summa cum laude requires a GPA starting at 3.9 on a 4.0 scale; magna cum laude requires a GPA starting at 3.6; cum laude requires a GPA starting at 3.4. In order to be eligible for honors, a student must complete at Carroll, one-half of the hours (currently 64) required for graduation:

1. The student must earn at least 64 credits from Carroll University with no more than 8 of those credits being graded Pass/Fail.
2. Since a student with transfer work has a Carroll and an overall GPA, the lower of the two GPAs determines eligibility for honors and placement into one of the above three honors categories.

*The GPA is not rounded up.

Second degree graduation honors will be awarded to students who have completed all requirements for the degree. There must be a minimum of 32 letter-graded credits completed at Carroll University. The entire undergraduate record is considered and, if there is transfer work, the lower of the Carroll or overall grade point average (GPA)* determines eligibility for honors and placement into one of the three following categories: summa cum laude requires a GPA starting at 3.9 on a 4.0 scale; magna cum laude requires a GPA starting at 3.6; cum laude requires a GPA starting at 3.4.

Note: Graduating with honors, or as part of an honors society such as Phi Kappa Phi or Delta Sigma Nu, is distinct from the Honors Program. For information on the Honors Program, see the Honors Program page.

General Graduation Requirements

1. Students must earn a minimum of 128 credits, with the last 32 credits completed while enrolled at Carroll.
2. Degree requirements cannot be waived. For specific degree requirements, see below.
3. To graduate, students must earn a minimum 2.0 cumulative grade point average and a minimum 2.0 Carroll University grade point average. In addition, students must earn a "D" or better in all required coursework, including general education requirements.
4. An Application for Graduation form must be filed with the registrar's office one year before the expected date of graduation. Forms are available online. After the application is filed, a degree audit is sent to the student indicating remaining requirements to be completed.
5. Learning to communicate effectively in the form of writing is a cornerstone to all coursework taken in any degree earned at Carroll University. To gain that knowledge all students are required take ENG 170.
6. Because mathematical literacy is relevant to both liberal learning and the practical demands of contemporary society, all students must demonstrate a knowledge of and proficiency in mathematics. MAT 106 or higher and 8 credits in a modern language (MLL) other than English is required for all students pursuing a Bachelor of Arts degree or a Bachelor of Music in Education degree. CMP 112 and CMP 114 is required for all students pursuing a Bachelor of Science in Nursing degree. Students pursuing the Bachelor of Science or the Bachelor of Music in Music Therapy degrees are required to complete CMP 112 plus CMP 113 or CMP 114. This requirement can also be met by Advanced Placement credit in statistics or calculus.
7. Each year the academic community gathers to consider contemporary issues and enduring questions, to honor individual and collective achievement, and to celebrate shared vision and values. All full-time undergraduate students must attend two convocation events per academic year. At least one of those events each year must be a campus-wide event including; Opening Convocation, Founder's Day Convocation, Baccalaureate, Celebrate Carroll, or the Annual Waukesha UNAFF Traveling Film Festival. For department-sponsored convocations, students must attend through the Question and Answer time or they do not get credit for attending that convocation.

Degree Requirements

Bachelor of Arts

- Students must take 8 credits in a modern language (MML) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- MAT 106 or higher
- ENG 170

Bachelor of Music

Music Education

- Students must take 8 credits in a modern language (MML) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- MAT 106 or higher
- ENG 170

Music Therapy

- Students must take CMP 112 and either CMP 113 or CMP 114, or
- MAT 140 or higher and CSC 110 or higher
- ENG 170

Bachelor of Science*

- Students must take CMP 112 and either CMP 113 or CMP 114, or
- MAT 140 or higher and CSC 110 or higher
- ENG 170
- *Each major may have specific program requirements.

Bachelor of Science in Nursing

- Students must take CMP 112 and CMP 114
- ENG 170

Mathematics Placement Policy

What is the ALEKS PPL Placement?

Carroll University requires an ALEKS Placement, Preparation and Learning (ALEKS PPL) Assessment to determine readiness for mathematics courses. ALEKS PPL is a web-based program that uses artificial intelligence to map a student's strengths and weaknesses. The Placement Assessment is up to 30 questions and generally takes 60-90 minutes to complete. After the Placement Assessment, an individualized Prep and Learning Module is available for students to refresh their knowledge on forgotten topics. Students then have the opportunity to reassess and improve their placement.

ALEKS consists of three parts:

- An Initial Placement Assessment
- The Prep and Learning Module, an individualized, self-paced online review
- Access to 4 additional Placement Assessments

The Carroll University Mathematics Program encourages each student to spend time in the Prep and Learning Module, even if the desired score is achieved, because time spent in ALEKS will ultimately lead to better preparation and improved grades.

What is the purpose of placement testing? The ALEKS PPL Placement Assessment results will be used to determine the most appropriate courses for each student as they move forward with college coursework.

This is a "Placement Assessment," not a test. The difference is that a Placement Assessment is designed to determine what a student knows and what a student needs to work on. At the end of the ALEKS PPL Assessment, a student will have a much better sense of his/her strengths and weaknesses in math. Students then have a chance to brush on topics that may have been forgotten or haven't been practiced for some time.

Be honest. It is important that the Placement Assessment is taken seriously and each student gives it an honest effort so that the Placement Assessment truly reflects their current level of knowledge and math preparedness. There is no benefit to cheating on the Placement Assessment - the only result will be that a student enrolls in a class that is too difficult, or not challenging enough, potentially costing time and money. Therefore, while taking the Placement Assessment, students should not consult any outside sources for help (friends/family, internet searches, textbooks, notes etc...). The purpose of the Placement Assessment is to give an accurate measure of a student's current mathematical knowledge state so that he/she will be successful in mathematics courses.

[Carroll University Academic Integrity Policy](https://my.carrollu.edu/ICS/icsfs/Academic_Integrity_at_Carroll_University_student_h.pdf?target=b2299254-62f5-46f9-913e-4783a0cbe054)

https://my.carrollu.edu/ICS/icsfs/Academic_Integrity_at_Carroll_University_student_h.pdf?target=b2299254-62f5-46f9-913e-4783a0cbe054

We reserve the right to require a student to take a Placement Assessment in a proctored environment.

Who takes the ALEKS PPL Mathematics Placement Assessment?

- All incoming students
- All transfer students that have not met Carroll University Mathematics requirement.
- All students that have a placement score from Carroll University that is more than 2 years old from start of first day of mathematic course.

A student that has completed one or more Advanced Placement courses and exams in mathematics in the past 2 years may submit an petition to the mathematics program when AP scores are available if believe they should be placed higher than indicated by ALEKS PPL Assessment.

Mathematics Placement Scores and Course Placement

Course Number	Course Name	ALEKS Score
MAT 098	Pre-Algebra	0-29
MAT 101	Intermediate Algebra	30-45
MAT 104	Foundations of Elementary Mathematics I	46 or higher
MAT 106	Mathematics fore the Liberal Arts	46 or higher

CMP 112	Computational Thinking I	46 or higher
MAT 130	Elementary Functions	46-75
MAT 140	Calculus and Its Applications	76-100
MAT 160	Calculus I	76-100

Reapplication Policy for Dismissed and Withdrawn Students

The policy on reapplication defines the process by which students may seek readmission to the program following a withdrawal or dismissal of the student from the program for failing to maintain good academic standing. Readmission candidates may apply for readmission to the program no sooner than one semester after leaving the program and no later than two years from the date of the withdrawal or dismissal. Readmission candidates may exercise their reapplication option only once. Readmission candidates applying to the program must submit the materials required and shall be considered with all new applicants for admission. In addition, they must provide transcripts relating to any education experiences completed since leaving the program. A letter indicating why the readmission candidate believes they will succeed academically and technically in the program must accompany the application materials. Upon review of the materials, the program's admission selection committee may render the following decisions which are final: 1) Approval of the request for readmission to the beginning of the program, 2) admission to the program with consideration (i.e. repeating specific courses, required ancillary learning activities, credit for prior work, etc.) 3) Denial of the request for readmission to the program.

Transcripts and Transferring Credits

Transcripts

The Registrar's Office supplies official transcripts of records of those students who have no outstanding obligations to the university. In accordance with the Family Educational Rights and Privacy Act (1974), transcripts cannot be released without the express written consent of the student.

All transcript requests are completed online. To begin your order, [click here](#).

Transfer Credit Policy after Enrollment

Individual departments will evaluate transferred coursework to ensure equivalent content is being learned by the student in the transferred course. Therefore it is necessary to obtain permission in advance from the Carroll University Registrar's Office in order to have coursework from another institution accepted in transfer. [Click here](#) for the Transfer of Credit Approval form.

If approved through a Transfer of Credit Approval form, a student can take a prerequisite for a course at a different institution. However, the student cannot register for the course that needs this prerequisite until the prerequisite course is completed and official transcripts are sent to and processed by the Carroll University Registrar's Office.

All transfer coursework must be graded C or higher to be accepted as credit earned toward graduation. Transfer coursework with an earned grade of D will only be accepted to meet course requirements.

Course requirements include the PioCore distribution courses, major and minor requirement courses. Courses with an earned grade of D will not earn credit toward graduation.

Students need to earn a total of 128 credits to graduate.

NOTE: Students are required to complete their final 32 hours at Carroll University.

Official transcripts of all coursework from every post-secondary institution attended must be sent immediately following completion of the course to:

Carroll University Registrar's Office
100 N. East Ave.
Waukesha, WI 53186

Failure to have transcripts sent, even if the course cannot be accepted for credit, may result in the student being dismissed or the degree being rescinded.

Progression Standards

- Academic Action
- Progression Standards for Health Sciences - Diagnostic Medical Sonography Program
- Progression Standards for Health Sciences - Radiologic Technology Program
- Progression Standards for the Nursing Program
- Progression Standards for the Physical and Health Education Program
- Progression Standards for Neurodiagnostic Technology Program
- Progression Standards for the Physical Therapy Program
- Evaluation of Academic Standing and Progression in the Health Sciences
- Progression Standards for Music Therapy Program
- Academic Standing

Academic Action

College of Health Sciences Progression Standards

Progression Standards for Health Sciences - Diagnostic Medical Sonography Program

The Bachelor of Science degree program in Health Sciences with an emphasis in Diagnostic Medical Sonography (DMS) is offered through unique partnerships with Advocate Aurora Health in Milwaukee and the University of Wisconsin Hospital and Clinics (UWHC) in Madison. Students in the partnership program for Diagnostic Medical Sonography must adhere to the policies and requirements outlined by both Carroll University and their hospital program.

Accepted students transitioning into the clinical phase of the program must adhere to all policies and maintain all progression standards outlined by their cooperating hospital partner. All progression standards and grading criteria are at the discretion of the partnering hospital. A copy of these standards and program policies will be provided to each student by the hospital partner at the time of matriculation into the professional phase. Admission and progression standards are subject to change based on regulatory, licensing and/or certification needs.

Admission into and continued enrollment in the programs' independent School of Diagnostic Medical Sonography is conditioned upon each student's appropriate residency or visa status, compliance with applicable laws and the programs' policies, procedures, progression standards and guidelines.

Progression Standards for Health Sciences - Radiologic Technology Program

The Bachelor of Science degree program in Health Sciences with an emphasis in Radiologic Technology is offered through unique partnerships with Ascension-St. Joseph, Advocate Aurora Health, and Froedtert Hospital. Students in the partnership program for Radiologic Technology must adhere to the policies and requirements outlined by both Carroll University and their hospital program.

Accepted students transitioning into the clinical phase of the program must adhere to all policies and maintain all progression standards outlined by their cooperating hospital partner. All progression standards and grading criteria are at the discretion of the partnering hospital. A copy of these standards and program policies will be provided to each student by the hospital partner at the time of matriculation into the professional phase. Admission and progression standards are subject to change based on regulatory, licensing and/or certification needs.

Admission into and continued enrollment in the programs' independent School of Radiologic Technology is conditioned upon each student's appropriate residency or visa status, compliance with applicable laws and the programs' policies, procedures, progression standards and guidelines.

Progression Standards for the Nursing Program

1. Grades of BC or better are required in all nursing, chemistry, biology and health science courses. A satisfactory (S) is required in all completed clinical. If a grade lower than a BC or a grade of (U) is earned, the student will be placed on probation in the nursing program. In order to have the nursing probationary status removed, the student must repeat the coursework and earn a grade of BC or higher and/or a grade of (S). In all concurrent nursing and practica courses a student is required to earn a BC or better in the didactic course and a (S) grade in the practica. If courses are repeated, the university repeat/replace policy applies to all courses.
2. A student must maintain a cumulative GPA of 2.75. For First Time Freshman, GPA progression standards will be evaluated after the students attempt a minimum of 12 credits. A student whose cumulative GPA is below a 2.75 will be placed on academic probation for the following semester. To have the probationary status removed, a student must attain a 2.75 cumulative GPA in the subsequent semesters.
3. A student will be dismissed from the program if;
 1. s/he fails to attain a 2.75 cumulative GPA in the subsequent semester,
 1. If a cumulative GPA is less than a 2.75 due to a course grade and that same course is not offered in the subsequent semester, probation is continued until the Fall or Spring term when the same course is offered.
 2. s/he is placed on academic probation a second time during his or her tenure in the program,
 3. s/he fails to meet the criteria for the removal from academic probation.
4. If a grade below a BC is achieved or an S is not achieved, the student may not progress to subsequent courses in the program if the course is a prerequisite of another. When repeating a nursing, biology, chemistry or, health science course, a student may be required to successfully complete ancillary learning experiences or clinical competencies/practica that validate theoretical knowledge.
5. A course may be repeated only one time. A student receiving a C, D, F, or U twice in one nursing chemistry, biology or health science course or in two nursing, chemistry, biology and health sciences courses is dismissed from the program.
6. A transfer student who takes NRS 100 and NRS 230 concurrently and earns lower than a C in NRS 100 must retake NRS 100 in the subsequent semester. In this case, the student may register for NRS 236 in the subsequent semester but may not register for NRS 233 or NRS 234 .
7. A student who withdraws from any nursing, chemistry, biology or health sciences course twice will be dismissed from the program. A student will be dismissed from the nursing program if they withdraw for academic reasons from a nursing, chemistry, biology or health science course that is being repeated because of a previous earned grade of C, D, F, or U.
8. If a student withdraws from a course for reasons other than director approved request for medical or personal leave, the student must successfully complete the course in the next available semester or academic term.
9. Once a clinical course commences students cannot withdraw from the clinical course.
10. If at any time the student is deemed unsatisfactory in a clinical course, the student cannot continue to attend.

Progression Standards for the Physical and Health Education Program

To earn Physical and Health Education teaching licensure, the student must be admitted to the Teacher Education Program (TEP) through Carroll's Department of Education. Students in the Physical and Health Education Major who are seeking this licensure should be checking in regularly with both their Physical and Health Education advisor and their Education advisor.

Biannual TEP Admission Deadlines:

TEP applications and portfolios may be submitted at two times during the academic year provided students meet the requirements on the "TEP Admission Checklist" below.

Spring Applications Due: Jan. 25 / Portfolio Due: Feb. 1

Fall Applications Due: Sept. 25 / Portfolio Due: Oct. 1

TEP Admission Checklist (as of 9/2017)

1. Successful completion of 40 credits of college work with a minimum GPA at Carroll University of 2.75 (including at least 12 Carroll credits for transfer students).
2. English 170 (or equivalent) with a grade of C or better.
3. Grades of C or better in all Education major or minor courses, including transfer Education courses.
4. Completion of 150 hours of documented contact time with children (documentation will be submitted with Phase I Portfolio).
5. Completion of background re-check process with Certified Background. Recheck instructions are available on the Education Program Information Portal. Submit recheck before the TEP application deadline. *Candidates who enrolled in EDU 100 prior to Fall 2013 are exempt from this step
6. Successful completion or concurrent enrollment in EDU 210. Retention In the Teacher Ed. Program is contingent upon successful completion of EDU 210.
7. Approval of the Program Plan by the student's Education advisor if student is getting degree from Carroll University. If students are here for certification only they need to provide a copy of their advisor-approved Program Worksheet and a copy of their advisor-approved projected Program Plan.
8. Completion of the application form and submission to Education Department Office by deadline.
9. Successful completion of Phase I Portfolio.

For further information on the TEP, including the most current requirements, please contact Carroll's Department of Education.

Progression Standards for Neurodiagnostic Technology Program

The Bachelor of Science degree program in Neurodiagnostic Technology is offered through a unique partnership with Advocate Aurora Health in Milwaukee. Students in the partnership program for Neurodiagnostic Technology must adhere to the policies and requirements outlined by both Carroll University and their hospital program.

Accepted students transitioning into the clinical phase of the program must adhere to all policies and maintain all progression standards outlined by the cooperating hospital partner. All progression standards and grading criteria are at the discretion of the partnering hospital. A copy of these standards and program policies will be provided to each student by the hospital partner at the time of matriculation into the professional phase. Admission and progression standards are subject to change based on regulatory, licensing and/or certification needs.

Admission into and continued enrollment in the Neurodiagnostic Technology program's professional phase is conditioned upon each student's appropriate residency or visa status, compliance with applicable laws and the programs' policies, procedures, progression standards and guidelines.

Advocate Aurora Health in partnership with Carroll University is currently seeking Commission on Accreditation of Allied Health Education Programs (CAAHEP) accreditation for the BS in Neurodiagnostic Technology (NDT) program.

Progression Standards for the Physical Therapy Program

PrePhysical Therapy Program

To proceed to the 2020-21 professional phase of the physical therapy program in the senior year, a student must have a cumulative and preprofessional (natural, behavioral, and social sciences) GPA of 3.2 or higher. Carroll University Academic Standing policies apply to prephysical therapy students.

Professional Phase of the Physical Therapy Program

1. A grade of C or better or a grade of S is required in all physical therapy courses. A student earning a letter grade of D, F or U will be placed on academic probation in the Physical Therapy Program. A letter grade of D, F or U in physical therapy courses requires the student to repeat the course before progressing to subsequent courses for which the failed course is a prerequisite.
2. In the professional phase of the physical therapy program (400, 500, and 600 physical therapy courses) student must attain a grade point average of 3.0 or better each semester. If a student earns a semester grade point average between 2.0 and 2.99, s/he is placed on academic probation.
3. If a student is on academic probation during the last semester of the program, the student must earn an S in the clinical experience III PTH 614, to graduate.
4. A student will be dismissed from the program if 1) s/he is placed on academic probation a second time during his or her tenure in the program, 2) s/he fails to meet the criteria for the removal from academic probation, 3) if s/he earns a semester GPA of 1.99 or less or 4) if s/he receives a D, F, or U twice in one physical course or in two physical courses.
5. When repeating a physical therapy course, a student may be required to successfully complete ancillary learning experiences or clinical competencies/practica that validate theoretical knowledge.
6. If a student is unable to take further courses in the next occurring semester as a result of this policy, the student is placed on academic probation and repeats the course during the next appropriate semester.
7. A course may be repeated only one time.

Evaluation of Academic Standing and Progression in the Health Sciences

An interdisciplinary health science committee consisting of health sciences administrators, program directors, and the Registrar will conduct an evaluation of academic progression at the end of each semester. Health Sciences students may appeal a probation or dismissal decision by filing an Academic Affairs Petition with the Registrar's Office. The decision of the university regarding the appeal is final. During the appeal process, a student may participate in courses.

The Academic Affairs Petition form is found on the Registrar's Office web page or [click here](#).

Progression Standards for Music Therapy Program

1. A cumulative GPA of 2.75 and satisfactory completion of the piano, guitar, and voice proficiency exams is required for admission to the professional phase (junior and senior years) of the program.
2. A student must maintain a cumulative university GPA and a semester GPA of 2.75 throughout the professional phase. A student who gets below a 2.75 cumulative and/or session GPA will be placed on academic probation for the following semester. To have the probationary status removed, a student must attain a 2.75 session GPA or higher in subsequent semesters.
3. If a student fails to attain a 2.75 session GPA, s/he will be dismissed from the program.
4. Grades of C or better are required in all music therapy (MTY designation) courses. A satisfactory (S) is required in all completed practica. If a grade below a C is achieved or an S is not achieved, the student may not progress to subsequent courses in the program until the course is successfully repeated.
5. A course may be repeated only one time. A student receiving a D, F, or U twice in music therapy courses (including practica) will be dismissed from the program.
6. When repeating a professional phase music therapy course, a student may be required to successfully complete ancillary learning experiences or clinical competencies/practica that validate theoretical knowledge.

7. The piano, guitar, and voice proficiency exams will only be administered once per semester. They may be repeated as often as necessary.

Academic Standing

Good Standing

All students are expected to maintain at least a C (2.00) overall grade point average in Carroll University course work. Any student who does not maintain at least a 2.00 cumulative average in Carroll course work is subject to academic action following a review by the Academic Steering Committee.

Probation

As soon as a student's Carroll University grade point average drops below 2.00, that student is placed on academic probation. For a student on academic probation, the class load is limited to 12 credits. A student cannot be removed from probation until a 2.00 grade point average is attained.

Suspension

A student on probation for one or more semesters or a student who received no passing grades the previous semester will be suspended for one semester and the adjacent summer or be considered for dismissal. At the end of the suspension period, a student must apply for readmission. Upon suspension, a student may no longer live in on-campus housing or participate in university-related activities.

Dismissal

A student suspended a second time will be dismissed at the close of the semester because of failure to achieve an acceptable level of academic work. Students who are dismissed will be withdrawn from any registered courses at the University and will not be eligible to return to Carroll University.

Academic Appeals

The Academic Steering Committee (ASC) acts as the appeal body for questions related to academic policy, probationary questions, exemptions, etc. An academic petition form (available online or from the Registrar's Office) must be completed and returned to the Registrar's Office to initiate the appeal process. The petition form should carefully explain the nature of the request and include the appropriate signatures. All appeal decisions by the Academic Steering Committee are final. Course grade appeals and appeals of sanctions for academic dishonesty are heard by the Student/Faculty Ethics Committee. Appeals should be made through the Office of the Associate Dean of Academic Affairs. The procedure for appeals is found in the Student Handbook.

Returning Students

Students returning to Carroll after the lapse of one or more semesters and students who have been suspended from the University and have become eligible to apply for readmission must do so through the Office of Admission. Each application is reviewed and applicants will be informed of the status of the application and, if applicable, the conditions of readmission.

Course Information and Grading

Academic Support

Academic Resources provides academic support through the Career Center and the Learning Commons. Both departments are located on the lower level of the library. The Career Center serves Carroll University students and alumni by offering free services, including choosing a major, career exploration, resume and cover letter assistance, searching for a job or internship, networking tips, interviewing techniques and graduate school preparation. The Learning Commons provides free, peer to peer support services through academic workshops, the math center, subject tutoring, Supplemental Instruction and the writing center.

Adding or Dropping Courses

For step-by-step instructions log on to the portal, click on the Student Tab - Courses and Registration - Registration Instructions, or click on this link https://my.carrollu.edu/ICS/Student/Courses_and_Registration.jnz. A student may add a course only during the first week of the fall or spring semesters. For winter session, summer sessions, and other specially timed courses, refer to the published timetables for deadline dates to add courses. With the written consent of the instructor and the advisor, a student may drop a registered course through the eighth complete week of the fall or spring semester. For winter session, summer sessions, and other specially timed courses, refer to the published timetables for deadline dates to drop courses. The course will appear on the transcript as attempted credits; however, the grade will be a W (withdrawal) and will not affect the grade point average. It is the student's responsibility to complete the proper necessary paperwork; otherwise, the course grade will be recorded as an F.

Alternative Methods of Obtaining Credit

Carroll University recognizes that learning can occur in a variety of environments and through diverse experiences. At Carroll, there are several ways of obtaining credit for prior university-level learning in addition to satisfactory course completion. Students may earn up to 64 credits in a baccalaureate program through any combination of the following types of credit:

1. **Advanced Placement Credit** may be granted to students who are enrolled in a degree program at Carroll and obtain an appropriate score through Advanced Placement examinations. A copy of the current AP requirements is available from the Registrar or online. Qualified students may be granted credit following successful completion of a university-level course in secondary schools provided the course is submitted on a university transcript. A maximum of 48 credits may be obtained through advanced placement.
2. **The College Level Examination Program (CLEP)** grants credit to qualified students enrolled in a degree program at Carroll for up to seven courses (28 credits) on the General Examination when the qualifying level of the 75th percentile has been achieved in each test written. This credit will be divided in the following manner: English, four; mathematics, four; natural sciences, four; humanities, eight; and social sciences/history, eight. Credit for the General Examinations will count as elective credit toward graduation; some credits may meet general education requirements. Credit also may be granted for subject examinations when the scores are at the recommended qualifying level. No more than 48 credits of CLEP credit will be granted for the general and subject matter examinations combined. Additional information and registration forms are available from the Office of Part-Time Studies. This credit must be approved in advance.
3. **Credit by Examination** allows qualified students enrolled in a degree program at Carroll to take examinations for credit in selected courses. Such examinations are developed and administered by departments. In some instances, placement without credit might be recommended. Interested students may consult with department faculty about policies and procedures. Contact the Registrar's Office for the necessary form. A fee is charged for each examination. A student who does not complete the examination with satisfactory results may not repeat the examination.
4. **The International Baccalaureate Diploma** is recognized by Carroll University for purposes of admission, course credit and advanced standing or placement. Sixteen credits will be granted to holders of the International Baccalaureate diploma. Additional credit may be granted when more than four higher-level examinations have been taken and scores of four or higher have been earned. For students in the program who have not earned the diploma, four credits will be

granted for each higher-level examination when a score of four or higher is earned. These credits will be declared to meet core and General Education requirements when the subjects validated by examination appear to be reasonably comparable to the subjects taught at Carroll University. Otherwise, the credits will be regarded simply as elective credit toward a Carroll degree. The student must enroll as a degree-seeking student at Carroll.

5. **Credit for Prior Learning** is possible when university-level learning, which relates to a degree program offered by the University, has occurred outside the normal educational setting. Credit for prior learning may be given when verified by employment records and the American Council on Education guidebook and transcripts or when verified by a program for credit within that program. A maximum of 24 credits may be obtained through this method. Carroll University uses the course-equivalency method with the portfolio model for assessment of prior learning that is not easily measured via standardized testing or transfer procedures. Such competency is expected to be related to the student's present degree program. The evaluation of such credit requires consideration by faculty. Students are required to demonstrate their learning, competencies and skills. Evidence will usually consist of a portfolio. However, a performance test, an essay examination, or an interview with an internal or outside expert may also be required.
6. **Correspondence Courses**, up to 12 credits from an accredited institution, may be accepted in transfer and may be applied to a Carroll University degree. The course credit must be letter graded C or better. (D graded credit will not meet any graduation requirement.) Students must obtain written approval in advance from their adviser and the Registrar prior to registering for any correspondence or extension course. Forms are available in the Registrar's Office. A copy of the course description for each course to be taken must accompany the Transfer Credit Approval form when it is filed with the Registrar's Office. A maximum of eight semester hours of correspondence or extension course credit may be applied to major or minor requirements with the written approval of the appropriate Department Chair or College Dean. It must be filed in the Registrar's Office. Any correspondence or extension work taken prior to matriculation at Carroll University will be reviewed by the appropriate Department Chair or College Dean to determine its acceptance and application to graduation, major or minor requirements.
7. **D.A.N.T.E.S.** (Defense Activity for Nontraditional Education Support) course work will be considered on an individual case basis.
8. **P.O.N.S.I.** (The National Program on Noncollegiate Sponsored Instruction) credits will be evaluated on an individual basis.
9. **Proficiency Testing in Foreign Languages:** Students who have extensive background in a language other than English may be able to earn up to 16 credits in one language by demonstrating proficiency. The proficiency exam is intended for students with a more extensive background than high school foreign language study only. Carroll University grants credit to qualified degree-seeking Carroll students through the Proficiency Testing Program in Foreign Languages sponsored by New York University.
10. **Retroactive Credit for Modern Languages** allows students who are enrolled in a degree program to earn a maximum of 16 hours of credit in a modern language upon completion of one 300-level course with a grade of B or higher, or four, eight or twelve credits upon completion of 102, 201, or 202, respectively, with a grade of B or higher. This must be the student's first enrollment in an advanced university-level modern language course. Please see the Modern Languages and Literatures section for competency and test requirements.
11. **Retroactive Credit for Mathematics** "Students with prior Calculus experience may enroll in Math 161, Calculus II, or Math 207, Calculus III. A student who takes Math 161 and earns a grade of BC or above will receive retroactive credit of Math 160, Calculus I, if Advanced Placement (AP) credit has not been awarded for the course. A student who takes Math 207, Calculus III, and earns a grade of BC or above will receive retroactive credit for Math 160 and Math 161, if Advanced Placement credit has not been awarded for those courses. Students with questions regarding the optimal Calculus course to take are encouraged to contact the mathematics faculty directly.
12. **OCICU** Carroll University has approved for degree credit several online courses offered through the Online Consortium of Independent Colleges and Universities (OCICU). Credits earned in an approved OCICU course are posted to a student's transcript as the equivalent Carroll University course. The courses offered by OCICU may carry a different number of credits from the equivalent Carroll course. OCICU courses have different add/drop policies, pricing, refund policies, and start and end dates. OCICU courses meet during six eight-week terms throughout the year. Only part-time students may take OCICU courses during the fall and spring terms. All students may enroll in OCICU courses in the summer. Information on all of Carroll University's Web-based courses is available online.

Attendance

Carroll University's attendance policy is based on the Federal HEOA Policy that University's need to be able to confirm student attendance. This is a requirement for schools that receive Title IV Federal Financial Aid. This means that we need to be able to confirm that students have attended class and be able to produce the last date of attendance for any student that does not successfully complete a course.

Attendance at clinical experiences is mandatory for all health sciences majors.

Faculty may cancel a class due to personal illness, or other personal reasons. The instructor must contact the Dean of the College and the Registrar. Students will be notified of the cancellation via email by the instructor or by the Registrar's Office and a note will be posted near the classroom.

Carroll University requires all faculty to take attendance for the first two weeks of any semester in the Carroll University Learning Management (Canvas). Faculty will also be required to enter a last date of attendance for any student that has earned an unsatisfactory grade (U or F) or has withdrawn from a course within the term.

Auditing Courses

With the instructor's permission, students generally may audit all courses at Carroll, except for studio art courses, applied music, music ensembles, laboratories and health science clinical courses. The minimum requirement to receive an audit (AU) grade is regular attendance, but individual instructors may have higher requirements. To successfully audit a health science course the student must meet program academic progression standards. No credit is received for these courses. There are no restrictions for taking the same course for credit at a later date. However, students may not receive credit through "credit by examination" after auditing a course. Students taking the course for credit have priority enrollment over students who wish to audit.

Credit Hour Policy

Carroll University follows the federal guidelines:

Federal regulation requires each institution to have policies and procedures on credit hours. This includes but is not limited to all types of instruction: face-to-face, online and blended. Carroll University's policy on credit hours complies with the federal credit hour definition.

Carroll University assigns semester credit hours to all types of instructions. The acceptance of transfer coursework is converted into semester hours. The Academic Steering Committee reviews the assignment of credit hours at the time a course is approved. Courses are reviewed for time and content during regular program reviews.

A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonable approximates not less than:

1. One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester; or
2. At least an equivalent amount of work as required in paragraph (1) of this definition for other activities as established by an institution, including laboratory work internships, practica, studio work, and other academic work leading toward the award of credit hours
3. One credit is granted at the completion of a semester for each applied music lesson (on half-hour per week), ensemble or practicum course for which a student is registered.

Course/Credit Load

- Full-time student = 12 credits

- Half-time student = at least 6 credits
- Less than half-time student = 1 - 5 credits
- The University year is divided into 2 semesters, a winter session, and 3 summer sessions. Summer 1 runs for 3 weeks and Summer 2 and 3 run for 6 weeks each.
- Maximum credits per winter/summer term:
Winter and Summer 1 = 4 credits
Summer 2 and 3 = 8 credits each term
Total summer credits = no more than 20
- A student's normal class load is 16 credits of academic work each semester, with a total of 128 credits required for graduation. Students must register for all course work in the semester/term in which the work is done.
- Any student with a Carroll cumulative grade point average of 3.00 or higher may be permitted to take more than 19 credits at an additional charge. A student requesting to add additional credits must contact the Registrar's Office. Under no circumstances may a student take more than 21 credits each semester.
- A student on academic probation may not register for more than 12 credits.

Course Numbering Guidelines

The following serves as a guideline for choosing course numbers for specific courses. In general, course numbers are designated to match the class level of the students taking the course. As new curricula and courses are proposed, these course numbering guidelines will be used. In cases when these course numbering guidelines conflict with existing course numbers, those numbers may be changed to align with the guidelines.

001 to 099, Developmental: developmental courses or prerequisite courses needed to meet certain conditions of admission. These credits do not apply toward credits required for graduation.

101 to 199, Undergraduate I: generally introductory undergraduate courses, designed for first-year students or beyond. These courses are usually skill-building courses or courses that serve as an introduction to a specific discipline.

201 to 299, Undergraduate II: undergraduate courses generally designed for second- or third-year students; content is built on materials from the Undergraduate I level courses and may include a prerequisite preparation.

301-399, Undergraduate III: undergraduate courses, usually designed for third- or fourth-year students, often including significant prerequisite preparation.

401-499, Undergraduate IV: undergraduate courses usually available to third-year students though designed primarily for fourth-year students, or beginning professional courses for combined undergraduate/graduate programs. They assume considerable prerequisite knowledge and experience.

5000-5999 Graduate: Graduate level courses are defined as those that contribute to the achievement of Carroll's Graduate Student Learning Goals and Assessments.

6000-6999, Graduate I: advanced study, generally designed for beginning graduate or professional students.

7000-7999, Graduate II: advanced study, generally designed for advanced graduate or professional students.

The Curriculum

The curriculum for all undergraduates at Carroll consists of:

1. coursework associated with the University's General Education Program
2. completion of a course of study leading to one or more majors (and often a minor) including support courses

3. elective courses that complete the undergraduate's educational experience.

Carroll students earn the baccalaureate degree appropriate to their major field of study and are required to fulfill the degree requirements specified by the various academic programs and detailed in subsequent sections of this catalog. Graduates of the University must fulfill the requirements of a major and its associated degree requirements, the general graduation requirements and a minimum of 128 credit hours.

Definitions

Major: a subject or field of study chosen by a student to represent his or her principal interest and upon which a large share of his or her efforts are concentrated:

Minor:

1. a subject or a course of study pursued by a student, especially a candidate for a degree, subordinately or supplementarily to a major or principal subject or course.
2. a subject for which less credit than a major is granted in college.

Track: A recommended path within a major to complete the major. Tracks do not appear on the transcripts.

Emphasis: A collection of courses that may supplement declared majors. Certain majors require an emphasis and others do not. Emphases appear on the transcripts. They may be inter-disciplinary in nature and may supplement a variety of majors.

Electives

Students also have the opportunity to complete elective courses to broaden their knowledge in areas outside the major. Electives are generally free of restrictions, other than prerequisites, and fulfill neither major nor general education requirements

Grade Policy on Transfer Work

Carroll University offers letter grades of A, AB, B, BC, C, D and F upon completion of a Carroll University course. All transfer work grades will be converted into the Carroll University letter grade system. For example: a student transferring in a letter grade of B+ from another institution will receive a grade of B on the Carroll University transcript for that transfer course.

Please note that not all coursework from other institutions are transferable. Official transcripts must be sent to the Carroll University Registrar's Office for review.

Grading System and Grade Point Calculation

Grading System

A system of letter grades is used in courses for which degree credit may be earned. A 4.00 grade point system is used under which a student earns grade points for each credit completed.

Letter Grade	Grade Point	Description
A	4.00	Excellent

AB	3.50	Intermediate grade
B	3.00	Good
BC	2.50	Intermediate grade
C	2.00	Average
D	1.00	Low, merely passing
F	0.00	Failure
AU		Audit
I		Incomplete (see definition)
IP		In progress
NC		No credit allowed
NR		Grade not received
S		Satisfactory (A, A/B, B, B/C, C level)
U		Unsatisfactory (D or F level)
W		Withdrawal

Grade Point Calculation

The grade point values when multiplied by the number of course credits give the total number of grade points earned for that particular course. In a four-credit course, for example, a grade of B yields 12 grade points; a grade of A yields 16 grade points. The grade point average is the ratio between total academic grade points and total academic hours: that is, the quotient obtained by dividing the total number of academic grade points earned by the total number of academic hours attempted. For example, a program of 16 academic credits in which 48 grade points are earned will yield a grade point average of 3.00 or an average of B (48 divided by 16 = 3.00).

Incomplete Grading

A report of incomplete means that the student has been unable to complete the required work for a valid reason; it is not given for neglected work. In order to receive an incomplete, the student must initiate the request by submitting a properly completed form (available online and from the Registrar's Office) to the instructor prior to the end of the term. If the instructor agrees with the request, the completed form is signed by the student, the instructor and the department chair and is then submitted by the instructor to the Registrar. Upon receiving the form with all relevant information and appropriate signatures, the Registrar will post the incomplete grade to the student's transcript. An incomplete must be removed by the end of the eighth week of the next semester or it automatically becomes a failure. An extension of no more than one year may be granted only with written consent from the instructor and the department chair.

Enrichment Programs

- Carroll3 Program
- Honors
- Study Abroad and Domestic Study Away

Carroll3 Program

The Carroll3 Program provides students an opportunity to complete an undergraduate degree in just three years. This selective program requires special approval for an accelerated course load of 20 credits per semester. Just eight credits are required to be completed outside of fall and spring semesters, which can be fulfilled through summer/winter courses or alternative methods of credit (i.e. AP, IB, dual enrollment credits). Incoming freshmen are invited to apply and will be notified of acceptance prior to course registration.

The following majors are approved to participate in the Carroll3 Program:

- Animal Behavior Program
- Art Program
- Business Economics Program
- Communication BA Major
- Communication BS Major
- Criminal Justice Program
- Educational Studies Program
- English and Writing Program
- Finance Program
- Global Studies Program
- Graphic Communication Program
- History Program
- Management and Leadership Program
- Mathematics Program
- Mathematics BS Program
- Music Liberal Arts
- Philosophy, Political Science and Economics Program
- Photography Program
- Psychology Program
- Religious Studies Program
- Sociology Program
- Spanish Program
- Theatre and Arts Management

Honors

Massimo Rondolino Associate Dean for the College of Arts and Sciences

Carroll University's Honors Program provides an opportunity for students, faculty and staff to cultivate their academic, social, professional and personal development as part of a learning community at the intersection of all Carroll programs. As members of this exclusive program, students build an understanding and a disposition across the institution's general education curriculum

and co-curriculum as they cultivate an integrative approach to learning, drawing from their individual fields of study, and grow their leadership potential. Upon completion of the program, students will be able to connect relevant experiences and academic knowledge, adapt and apply literacies and skills to new situations. Ultimately, they will demonstrate a developing sense of self as lifelong learners, successful professionals and global citizens as they engage with critical and systemic real-world problems.

Mission Statement

The Honors Program at Carroll University encourages motivated and talented students to pursue a breadth and depth of knowledge within an enriched curriculum. The program creates an environment designed to challenge students' perspectives and foster intellectual development.

Curriculum Overview

Carroll University's Honors Program is designed to foster the development of critical and integrative approaches to problem solving, grounded in co-operative work and collaborative learning, towards the cultivation of leadership traits. To achieve this, it is crucial that each student works closely with their Honors peers, faculty and staff to establish and cultivate a thriving Living and Learning Community.

The first-year Honors curriculum is tightly structured, and every student is required to take specific courses, on specific days and at specific times.

Honors students who are also in their first year at Carroll must reside in the Honors Halls of Residence at Charles House for the duration of the first academic year. The requirement does not apply to first-year students who have received an institutional residency waiver.

The second-year students in the program have more flexibility, and are expected to take one to two honors courses with peers from the same graduation class.

Honors students beyond the first two years have greater freedom and are expected to assume significantly more responsibilities. They will take an active role in shaping the Honors Living and Learning Community, engage in community work and volunteering, and take on leadership positions in the Honors Student Council.

- Students admitted to the Honors Program in the fall semester of their first year must complete 6 honor courses (or equivalent), totaling 22-24 credits, in order to graduate with Honors.
- Students admitted to the program in the fall semester of their second year must complete 5 honor courses (or equivalent), totaling 18-20 credits, in order to graduate with Honors.
- Students admitted to the program and who are also enrolled in a 3-year undergraduate program at Carroll must join Honors in their first year and will have to complete 4 honor courses (or equivalent), totaling 14-16 credits, in order to graduate with Honors.

In collaboration with the Honors Center and Academic Advising, students are encouraged to devise a four-year plan that best suits their academic needs and interests, compatibly with the Honors Program's course requirements.

Requirements and Retention

In order to graduate with Honors from Carroll University, students need to:

- Students who join in their first year - complete 6 honor courses (or equivalent)
- Students who join in their second year - complete 5 honor courses (or equivalent)
- Carroll3 and pre-PT 3-2 Students - complete 4 honor courses (or equivalent)

To retain Honors status, students need to successfully complete every Honors course they are enrolled in. The program does not require students to maintain a particular GPA. Nevertheless, there are regular student performance reviews, conducted by Honors staff and faculty, to ensure and foster academic integrity and excellence.

List of Honors Courses

For further details on required courses, independent research and course contract options, please email the Honors Center at cuhonorscenter@carrollu.edu or visit the Honors Program.

Study Abroad and Domestic Study Away

Megan M. Baker Study Abroad/CCE Advisor

Megan Couch Director of Global Education

International education programs are an integral part of Carroll's academic offerings. The Office of Global Education in Kilgour Hall, directs semester, summer, winter and academic-year study abroad/away programs. **Unless noted otherwise, all study abroad/away programs listed in this catalog meet the Cross-Cultural Experiences (CCE) requirement of the Pioneer Core.**

Study Abroad Programs

Students who are in good academic standing and have completed at least 16 Carroll University credits at the time of participation are eligible to apply to enroll in a study abroad program. Students should note that each study abroad program may have its own requirements for acceptance and are encouraged to review the individual program's materials for additional expectations.

Approved study abroad students remain enrolled at the university during the semester or academic-year study abroad period. Applications for study abroad are due at least one semester prior to the semester in which the student intends to study; however, students are advised to apply for study abroad a full year ahead of their intended study. Details about the programs, eligibility, applications and costs are available on the Carroll University CCE Web site.

Study abroad opportunities include three types of programs: exchange, affiliated and unaffiliated.

1. Exchange Programs

Exchange programs are programs in which the school abroad sends us their students and we, in turn, send our students for a semester or academic year. Students participating in semester and year exchange programs receive their regular financial aid package, including institutional scholarships. They pay their Carroll University tuition. In most cases, room and board are paid directly to the host institution. Students are assessed a \$360 per semester or \$150 per winter or summer study abroad/away fee by Carroll University. Visit the Carroll University CCE website for a list of exchange programs.

2. Affiliated Programs

Affiliated programs are universities or study programs determined by Carroll to meet our academic standards. Students remain a Carroll University student while studying abroad on an affiliate program. Students participating in affiliated programs may be eligible for federal, state and outside funding as applicable. Institutional aid is not available for affiliated programs. Students pay program tuition to Carroll University which, in turn, remits the monies to the program provider. In most cases, room and board are paid directly to the host institution or program. Students are assessed a \$360 per semester or \$150 per winter or summer study abroad/away fee by Carroll University. Visit the Carroll University CCE Website for the most up-to-date list of partner programs.

3. Unaffiliated Programs

Unaffiliated programs are programs that students independently identify as a preferred study abroad option. Students sometimes want a study abroad experience that is not available through our Exchange or Affiliated Programs. Students

need approval for an unaffiliated program in order to remain a Carroll University student while abroad. Students participating in unaffiliated programs may be eligible for federal, state and outside funding as applicable. Institutional aid is generally not available for unaffiliated programs. Students pay all tuition and fees directly to the host institution. Students are assessed a \$360 per semester or \$150 per winter or summer study abroad/away fee by Carroll University. Visit the Carroll University CCE Website for more information on unaffiliated study abroad programs.

Accreditation Information

[Click here for information on accreditation.](#)

Honors and Awards

Dean's List

The Dean's List is determined twice each year at the end of the fall and spring semesters. It includes the names of all full-time degree candidates who earned at least a 3.5 grade point average the previous semester in a minimum of 12 credits with letter grades with the exception of junior-and senior-level nursing students who need 6 of the 12 credits with letter grades. Achievement of the dean's list is noted on the student's transcript. Dean's list for part-time students will be determined after a student has earned 12 Carroll credits and has a Carroll cumulative GPA of 3.50. Thereafter, a student who completes fewer than 12 credits per semester and earns at least a 3.500 GPA is designated as being on the dean's list for that semester.

Honors

Phi Kappa Phi: Carroll University invites students in the top 7.5% of the junior class and the top 10% of the senior class and graduate programs to join Phi Kappa Phi, the nation's oldest, largest, and most selective all-discipline honor society. Phi Kappa Phi gives its members a lifelong connection to a global network of academic and professional activities, including opportunities to apply for national scholarships.

Delta Sigma Nu is the university's honorary scholastic society. Students in the upper 10 percent of the senior class who have completed by graduation 64 letter-graded credits at Carroll and a total of 100 letter-graded credits are elected to membership. The only exception is students on approved off-campus programs where letter grades are not given. Members of the junior class with an overall grade point average of 3.9 or higher who have completed 64 letter-graded credits at Carroll and have been enrolled at Carroll University for at least four semesters are elected to membership.

Graduation honors based on the cumulative grade point average (GPA)* are awarded to those students who have completed all requirements for the degree: summa cum laude requires a GPA starting at 3.9 on a 4.0 scale; magna cum laude requires a GPA starting at 3.6; cum laude requires a GPA starting at 3.4. The complete record is considered, and there must be a minimum of 64 credits of letter grades. In order to be eligible for honors, a student must complete at Carroll, in letter-graded courses, one-half of the hours (currently 64) required for graduation. Students with transfer work must meet two criteria:

1. The student must have 64 letter-graded credits earned at Carroll.
2. Since a student with transfer work has a Carroll and an overall GPA, the lower of the two GPAs determines eligibility for honors and placement into one of the above three honors categories.

*The GPA is not rounded up.

Second degree graduation honors will be awarded to students who have completed all requirements for the degree. There must be a minimum of 32 letter-graded credits completed at Carroll University. The entire undergraduate record is considered and, if there is transfer work, the lower of the Carroll or overall grade point average (GPA)* determines eligibility for honors and placement into one of the three following categories: summa cum laude requires a GPA starting at 3.9 on a 4.0 scale; magna cum laude requires a GPA starting at 3.6; cum laude requires a GPA starting at 3.4.

Note: Graduating with honors, or as part of an honors society such as Phi Kappa Phi or Delta Sigma Nu, is distinct from the Honors Program. For information on the Honors Program, see the Honors Program page.

Honors Program

The mission of the Carroll University Honors Program is to encourage motivated and talented students to pursue a breadth and depth of knowledge within an enriched curriculum. The program creates an environment designed to challenge students' perspectives and to foster intellectual development. This interdisciplinary program offers intensive sections of courses distributed

over the arts and sciences. The Honors Program also provides special cultural and social activities on and off campus for all honors scholars.

Carroll University's Honors is an exclusive program: only a limited number of students are invited to join every year. The program keeps two separate rolling admissions during the academic year:

- For prospective students: every confirmed student is automatically invited to apply; in addition, admission counselors recommend talented students to the Program who demonstrated extraordinary leadership potential.
- For current first-year students: faculty and staff who teach first-year courses and work closely with first-year students nominate outstanding students who are then invited to apply.

Applications are then reviewed by the Honors Committee and the most promising applicants are invited for an in-person interview. Currently, the Honors Program admits up to 36 prospective students and 14 current first-year students every year.

For more details, see the Honors Program page.

Graduation Latin Honors

Graduation honors based on the cumulative grade point average (GPA)* are awarded to those students who have completed all requirements for the degree: summa cum laude requires a GPA starting at 3.9 on a 4.0 scale; magna cum laude requires a GPA starting at 3.6; cum laude requires a GPA starting at 3.4. In order to be eligible for honors, a student must complete at Carroll, one-half of the hours (currently 64) required for graduation:

1. The student must earn at least 64 credits from Carroll University with no more than 8 of those credits being graded Pass/Fail.
2. Since a student with transfer work has a Carroll and an overall GPA, the lower of the two GPAs determines eligibility for honors and placement into one of the above three honors categories.

*The GPA is not rounded up.

Second degree graduation honors will be awarded to students who have completed all requirements for the degree. There must be a minimum of 32 letter-graded credits completed at Carroll University. The entire undergraduate record is considered and, if there is transfer work, the lower of the Carroll or overall grade point average (GPA)* determines eligibility for honors and placement into one of the three following categories: summa cum laude requires a GPA starting at 3.9 on a 4.0 scale; magna cum laude requires a GPA starting at 3.6; cum laude requires a GPA starting at 3.4.

Note: Graduating with honors, or as part of an honors society such as Phi Kappa Phi or Delta Sigma Nu, is distinct from the Honors Program. For information on the Honors Program, see the Honors Program page.

Schools and Colleges

Carroll University

College of Arts and Sciences

Charles Byler, Dean

Dean: Charles Byler, Dean

Room: Betty Lou Tikalsky House 203

Telephone: 262-650-4836

Fax: 262-574-2608

Email: cbyler@carrollu.edu

Department of Communication, Criminal Justice, and Sociology

Jennifer Huck, Chair

- Majors: Communication, Criminal Justice, Sociology
- Minors: Communication Liberal Arts, Criminal Justice, Sociology, Sociology of Sustainability, Women and Gender Studies

Department of Computational and Physical Sciences

Kevin McMahon, Chair

- Majors: Actuarial Science, Applied Physics/Engineering Dual Degree Program, Applied Physics, Chemistry and Biochemistry, Computer Science, Information Technology, Mathematics, 3+4 Biochemistry/PharmD Emphasis
- Minor: Aviation Science, Biochemistry, Chemistry, Computer Science, Information Technology, Mathematics, Physics
- Articulation Programs: 3+2 Engineering Program, 3+3 Pharmacology with Medical College of Wisconsin

Department of English, Modern Languages and Philosophy

B.J. Best, Chair

- Majors: English and Writing, Philosophy/Political Science/Economics (PPE), Spanish
- Minors only: Creative Writing, French, Philosophy, Professional Writing, Spanish, Video Game Studies

Department of History, Political Science, and Religious Studies

Lilly Goren, Chair

- Majors: Global Studies, History, Political Science, Religious Studies
- Minor only: Global Studies, History, Medieval and Renaissance Studies, Political Science, Religious Studies

Department of Life Sciences

Matthew Scheel, Chair

- Majors: Animal Behavior, Biology, Environmental Science, Marine Sciences, Psychology
- Minors: Animal Behavior, Biology, Environmental Studies, Earth Studies, Natural Resource Management, Psychology
- Articulation Programs: 3+2 Master in Freshwater Sciences, 2+2 Marine Sciences, 3+4 Biology/Doctor of Podiatry Emphasis

Department of Visual and Performing Arts

Jennifer Dobby, Chair

- Majors: Art, Art Education, Graphic Design, Music, Music Education, Music Theatre, Music Therapy, Photography, Theatre Arts
- Minor only: Art, Arts Management, Film and Television, Graphic Design, Music, Photography, Theatre, Web Design

Department of Communication, Criminal Justice, and Sociology

Chairperson: Jennifer Huck

Professor(s):

Associate Professor(s):

Assistant Professor(s):

Instructors:

Room Betty Lou Tikalsky House 203

Telephone: 262-524-7169

Fax: 262-574-2608

E-mail: jhuck@carrollu.edu

Department Faculty

Name	Title	Area
Jon Gordon	Distinguished Lecturer in Communication	Communication

Jennifer Huck Chair of Department and Associate Professor of Sociology and Criminal Justice Criminal Justice, Sociology

Rebecca Imes Chair and Associate Professor of Communication Communication

Barbara King Associate Professor of Communication Communication

Kelly Pinter Lecturer of Sociology and Criminal Justice Criminal Justice, Sociology

Aaron Routhe Lecturer of Sociology Sociology

Bachelor of Arts

Communication BA Major

Program Faculty

Jon Gordon, Distinguished Lecturer in Communication (jgordon@carrollu.edu)

Jennifer Huck, Chair of Communication and Sociology (jhuck@carrollu.edu)

Rebecca Imes, Associate Professor of Communication (rimes@carrollu.edu)

Barbara King, Associate Professor of Communication (bking@carrollu.edu)

The Communication program offers a major in communication, as well as minors in liberal arts communication and secondary education speech communication. The goal of the program is to develop graduates who possess communication competence, in both theory and practice.

The communication major prepares students for careers in journalism, public relations, advertising, teaching, management, human resources and for advanced education in graduate school. The curriculum follows a sequence for student development. As freshmen, students learn the principles of, and have experiences in, various contexts of communication. They also become familiar with the methods of communication research (100-level courses). As sophomores, students become acquainted with specialized subject matters and hone skills in research, writing and critical thinking (200-level courses). As juniors, students engage in deeper exploration of theoretical and ethical perspectives (300-level courses). As seniors, students participate in advanced research and work-oriented experiences.

Learning Outcomes for Communication

Upon successful completion of major requirements, students are expected to demonstrate:

1. An understanding of the theories and principles of human communication that will facilitate their professional and personal effectiveness.
2. Skill in responsible and sensitive communication with diverse others.
3. The ability to conduct systematic inquiry skillfully.
4. The ability to develop and convey oral and written messages effectively.

Core Courses

- COM 101 - Principles of Communication 4 Hour(s)
- COM 150 - Research Methodology 4 Hour(s)
- COM 207 - Intercultural Communication 4 Hour(s)
- COM 499 - Senior Capstone Seminar 4 Hour(s)

Communication Major B.A. (40 Credit Hours)

Core courses plus four additional 4-credit 100- or 200-level courses in Communication

Two of the Following 300-Level Courses in Communication

- COM 317 - Communication Criticism 4 Hour(s)
- COM 319 - Communication Theory 4 Hour(s)
- COM 350 - Communication Law 4 Hour(s)
- COM 370 - Communication Technology and Society 4 Hour(s)

Completion of a Modern Language Through 202

For primary majors, this Modern Language requirement is in addition to the minimal Bachelor of Arts language requirement.

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- ****International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.**
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each Major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each Major.

Suggested Tracks

- Journalism Track
- Public Relations Track
- Relational Track

Bachelor of Science

Communication BS Major

Program Faculty

Jon Gordon, Distinguished Lecturer in Communication (jgordon@carrollu.edu)

Jennifer Huck, Chair of Communication and Sociology (jhuck@carrollu.edu)

Rebecca Imes, Associate Professor of Communication (rimes@carrollu.edu)

Barbara King, Associate Professor of Communication (bking@carrollu.edu)

The Communication program offers a major in communication, as well as minors in liberal arts communication and secondary education speech communication. The goal of the program is to develop graduates who possess communication competence, in both theory and practice.

The communication major prepares students for careers in journalism, public relations, advertising, teaching, management, human resources and for advanced education in graduate school. The curriculum follows a sequence for student development. As freshmen, students learn the principles of, and have experiences in, various contexts of communication. They also become familiar with the methods of communication research (100-level courses). As sophomores, students become acquainted with specialized subject matters and hone skills in research, writing and critical thinking (200-level courses). As juniors, students engage in deeper exploration of theoretical and ethical perspectives (300-level courses). As seniors, students participate in advanced research and work-oriented experiences.

Learning Outcomes for Communication

Upon successful completion of major requirements, students are expected to demonstrate:

1. An understanding of the theories and principles of human communication that will facilitate their professional and personal effectiveness.
2. Skill in responsible and sensitive communication with diverse others.
3. The ability to conduct systematic inquiry skillfully.
4. The ability to develop and convey oral and written messages effectively.

Core Courses

- COM 101 - Principles of Communication 4 Hour(s)
 - COM 150 - Research Methodology 4 Hour(s)
 - COM 207 - Intercultural Communication 4 Hour(s)
 - COM 499 - Senior Capstone Seminar 4 Hour(s)
- Core courses plus four additional 4-credit 100- or 200-level courses in Communication**
- CMP 112 - Computational Thinking I 4 Hour(s)
 - CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

Two of the Following 300-Level Courses in Communication

- COM 317 - Communication Criticism 4 Hour(s)
- COM 319 - Communication Theory 4 Hour(s)

- COM 350 - Communication Law 4 Hour(s)
- COM 370 - Communication Technology and Society 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each Major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each Major.

Cross Cultural Development

For a complete list of CCD courses, [click here](#).

Suggested Tracks in the Communication Major

- Journalism Track
- Public Relations Track
- Relational Track

Criminal Justice Major

Jennifer L. Huck	Chair of Department of Communication and Sociology Associate Professor of Criminal Justice
Kelly Pinter	Lecturer of Sociology and Criminal Justice

The criminal justice major is designed to meet the needs of students considering a career in the criminal justice system, including law enforcement, law and the courts and corrections. The major has an interdisciplinary liberal arts focus, emphasizing social science knowledge as well as basic communication and intellectual skills. We offer courses to help students understand the structure and philosophy of the American criminal justice system including the dimensions and causes of crime and delinquency, theories of crime prevention and control, the history, nature and theories of law enforcement, the basis and operation of criminal courts, and the philosophies and practices of various correctional institutions and programs, including corrections in the community.

Learning Outcomes for Criminal Justice

Students successfully completing the major are expected to:

1. Demonstrate an understanding of the structure, philosophy and administration of the criminal justice system and its components of law enforcement, courts, and corrections.
2. Describe and apply criminological theory to understand why individuals engage in crime, how criminals are created, and how policies connect to theoretical underpinnings.
3. Utilize and evaluate appropriate research and analytical methods in criminal justice.
4. Demonstrate the ability to develop and convey oral and written messages effectively in a professional manner.

Core Courses

- CRJ 103 - Introduction to Criminal Justice 4 Hour(s)
- CRJ 212 - Criminology 4 Hour(s)
- CRJ 499 - Capstone - What works in criminal justice policy 2 Hour(s)
- SOC 102 - Sociology of Social Problems 4 Hour(s)
- SOC 266 - Methods of Social Science Research 4 Hour(s)

Two Electives from the Following:

- CRJ 204 - Criminal Law 4 Hour(s)
- CRJ 213 - Race and Ethnicity Studies in Criminal Justice 4 Hour(s) **or**
- SOC 213 - Race and Ethnicity Studies in Sociology 4 Hour(s)
- CRJ 224 - Dynamics of Terrorism 4 Hour(s)
- CRJ 229 - Understanding Violence 4 Hour(s)
- CRJ 250 - Dissecting Truths of the Criminal Justice System 4 Hour(s)
- CRJ 252 - Law Enforcement and Justice 4 Hour(s)
- CRJ 291 - Special Topics in Criminal Justice 4 Hour(s)

Two Electives from the Following:

- CRJ 307 - Corrections, Policy and Justice 4 Hour(s)
- CRJ 319 - Juvenile Delinquency 4 Hour(s)
- CRJ 323 - Court processes, decisions, and ethics 4 Hour(s)
- CRJ 332 - White Collar and Environmental Crime 4 Hour(s)
- CRJ 340 - Victims and Victimology 4 Hour(s)
- CRJ 345 - Women, Gender, and Crime 4 Hour(s)
- CRJ 391 - Special Topics in Criminal Justice 4 Hour(s)
- CRJ 480 - Internship in Criminal Justice 2 or 4 Hour(s)

Required Support Courses

- IDS 200 - Career and Job Placement 2 Hour(s)
- POL 141 - Intro to American Politics 4 Hour(s)
- ENG 199 - Reading and Writing in the Sciences 4 Hour(s)

Note:

Bachelor requirements for this major may take SOC 114 instead of CMP 114.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
and
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
and
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Sociology Major

Jennifer L. Huck **Chair of Communication, Criminal Justice, and Sociology Associate Professor of Criminal Justice and Sociology**

Kelly Pinter **Lecturer of Criminal Justice and Sociology**

Aaron Routhe **Senior Lecturer of Sociology and Sustainability**

Program Advisor

Aaron Routhe (arouthe@carrollu.edu)

The **Sociology Program** at Carroll University offers a major in sociology, as well as minors in general sociology and the sociology of sustainability (environmental sociology). Sociology majors may follow a curriculum track such as in **social work, sustainability, pre-law, and pre-occupational or physical therapy** if they choose. The Sociology Program encourages majors to select a secondary major, or multiple minors, that reflect their career and personal interests and further prepares graduates for greater success in a more rapidly changing world.

The Mission of Pioneer Sociology is equipping graduates to work and lead: in building the resilience of individuals, families, and the groups they belong to (**Community**); and fostering the social, economic, and environmental flourishing (**Sustainability**) of peoples' lives in the places they live. The PIOSOC motto is: Sociology with Purpose, Sociology for Change, Sociology in Motion - A Sociology for Community & Sustainability.

Learning Outcomes for Sociology

Students successfully completing the major are expected to:

1. Demonstrate an understanding of the variety and diversity of societal/cultural phenomena addressed by the field of sociology.
2. Describe and apply sociological concepts, research methods, and theoretical perspectives to describe how societal/cultural forces shape individual's personal experiences.
3. Demonstrate the ability to develop and convey oral and written messages effectively in a professional manner.

Sociology Major (40 Credit Hours)

- **Core Courses**
- **Plus four additional 4-credit elective 100- or 200-level courses in Sociology**
- **And two 4-credit elective 300-level (non-Core Major) in Sociology**

Core Courses

- SOC 101 - Introduction to Sociology 4 Hour(s)
- SOC 266 - Methods of Social Science Research 4 Hour(s)
- SOC 308 - Sociological Theory 4 Hour(s)
- SOC 399 - Capstone in Sociology 4 Hour(s)

Suggested Career-Course Tracks in the Sociology Major:

Sociology majors may use one of the curriculum tracks listed below to select a minimum set of courses based on their vocational interests and career goals. Selecting a track is not required. It indicates interest in a possible career field and aids in one-on-one faculty advising to customize your Pioneer Sociology and Carroll University education, including selecting your general education (Pioneer Core) courses. Curriculum tracks available in the Sociology Program include:

Specific Sociology Program tracks in -

- Sustainability
- Social Work
- Pre-Law
- Pre-Physical Therapy or Pre-Occupational Therapy

General Sociology Program tracks -

- General (or Community Development)

Note:

The Sociology Course catalog is under revision and does not list all courses currently available to register. Several courses for listed tracks are under review; inquire with the Sociology Program faculty advisor for current and complete approved course listing.

Bachelor of Science Requirements

Sociology Majors may take SOC 114 to meet their CMP 114 requirement

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
and
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
and
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Minor

Criminal Justice Minor

Core Courses

- CRJ 103 - Introduction to Criminal Justice 4 Hour(s)
- CRJ 212 - Criminology 4 Hour(s)

Two Electives from the Following:

- CRJ 204 - Criminal Law 4 Hour(s)

- CRJ 213 - Race and Ethnicity Studies in Criminal Justice 4 Hour(s) **or**
- SOC 213 - Race and Ethnicity Studies in Sociology 4 Hour(s)

- CRJ 224 - Dynamics of Terrorism 4 Hour(s)
- CRJ 229 - Understanding Violence 4 Hour(s)
- CRJ 250 - Dissecting Truths of the Criminal Justice System 4 Hour(s)
- CRJ 252 - Law Enforcement and Justice 4 Hour(s)
- CRJ 291 - Special Topics in Criminal Justice 4 Hour(s)

One Elective from the Following:

- CRJ 307 - Corrections, Policy and Justice 4 Hour(s)
- CRJ 319 - Juvenile Delinquency 4 Hour(s)
- CRJ 323 - Court processes, decisions, and ethics 4 Hour(s)

- CRJ 332 - White Collar and Environmental Crime 4 Hour(s) **or**
- SOC 332 - White Collar and Environmental Crime 4 Hour(s)
- CRJ 340 - Victims and Victimology 4 Hour(s)
- CRJ 345 - Women, Gender, and Crime 4 Hour(s)

Liberal Arts Communication Minor

Requirements

- COM 101 - Principles of Communication 4 Hour(s)
- Three elective four-credit courses in Communication

One of the following:

- COM 317 - Communication Criticism 4 Hour(s)
- COM 319 - Communication Theory 4 Hour(s)
- COM 350 - Communication Law 4 Hour(s)
- COM 370 - Communication Technology and Society 4 Hour(s)

Link to Film and Television Minor

For more information on the Film and Television Minor, [click here](#).

Sociology Minor

Requirements (20 Credit Hours)

- SOC 101 - Introduction to Sociology 4 Hour(s)
- SOC 308 - Sociological Theory 4 Hour(s)
- **Plus three additional 4-credit elective 100-, 200-, or 300-level courses in Sociology**

Sociology of Sustainability Minor

Requirements

- SOC 101 - Introduction to Sociology 4 Hour(s)
- SOC 202 - Society and Ecology 4 Hour(s)
- SOC 266 - Methods of Social Science Research 4 Hour(s) **or**
- SOC 308 - Sociological Theory 4 Hour(s)
- SOC 302 - Complex Organizations and Work Life 4 Hour(s)
- ENV 120 - Conservation and Environmental Improvement 4 Hour(s)

- ENV 120L - Conservation and Environmental Improvement Laboratory 0 Hour(s)
- ENV 222 - Environmental Sustainability 4 Hour(s)

Women and Gender Studies Minor

Pascale Engelmajer	Associate Professor of Religious Studies
Jennifer Dobby	Senior Lecturer in Theatre Arts
Lilly Goren	Professor of Political Science
Jennifer L. Huck	Associate Professor of Criminal Justice
Rebecca Imes	Associate Professor of Communication
Lara Karpenko	Associate Professor of English
Abigail Markwyn	Associate Professor of History
Kelly Pinter	Lecturer of Criminal Justice and Sociology

Women and gender studies creates an awareness of the role gender plays in human interactions, in the creation of societal institutions, and in the rankings of individuals within those institutions. Interdisciplinary in its approach to learning, courses in Women and Gender Studies enrich students' perspectives on a variety of disciplines and provide a critical skill to those interested in understanding the dynamics of human behavior.

Learning Objectives

These learning objectives will be assessed in the interdisciplinary capstone course.

1. Apply social scientific lenses including, sociology, criminology communication, and political science to the roles of sex and gender in historical and contemporary life.
2. Demonstrate an understanding of the way that history, politics, religion, literature, or artistic works produce, reproduce, and challenge gender constructs across multiple eras and locales.
3. Apply comparative theories of gender to historical, global, and contemporary issues.
4. Demonstrate the ability to gather sources, analyze information, and produce an original work of research in one or more of the disciplines included in the minor.

Core Courses that Must be Taken:

One Social Science

- COM 235 - Gender and Society 4 Hour(s)
- SOC 235 - Gender and Society 4 Hour(s)
- CRJ 345 - Women, Gender, and Crime 4 Hour(s)
- WGS 345 - Women, Gender, and Crime 4 Hour(s)
- WGS 296 - Women, Gender, and Politics 4 Hour(s)

One Humanities

- ENG 262 - Introduction to Gender Studies 4 Hour(s)
- WGS 262 - Introduction to Gender Studies 4 Hour(s)
- HIS 213 - Women in American History 4 Hour(s)
- WGS 213 - Women in American History 4 Hour(s)
- REL 315 - Women in Religion 4 Hour(s)
- WGS 315 - Women and Religion 4 Hour(s)
- WGS 314 - Queer and Gender Theory 4 Hour(s)
- WGS 400 - Interdisciplinary Capstone 2 Hour(s)

Select Two Courses from the Following

Select two courses from the following which have not been taken as part of core:

- CRJ 345 - Women, Gender, and Crime 4 Hour(s) **or**
- WGS 345 - Women, Gender, and Crime 4 Hour(s)

- ENG 262 - Introduction to Gender Studies 4 Hour(s) **or**
- WGS 262 - Introduction to Gender Studies 4 Hour(s)

- HIS 213 - Women in American History 4 Hour(s) **or**
- WGS 213 - Women in American History 4 Hour(s)

- POL 280 - Politics and Culture 4 Hour(s)

- REL 315 - Women in Religion 4 Hour(s) **or**
- WGS 315 - Women and Religion 4 Hour(s)

- SOC 235 - Gender and Society 4 Hour(s) **or**
- COM 235 - Gender and Society 4 Hour(s)

- WGS 150 - Introduction to LGBTQ* Studies 4 Hour(s)
- WGS 296 - Women, Gender, and Politics 4 Hour(s)

Department of Computational and Physical Sciences

Chairperson: Kevin McMahon

Professor(s):

Associate Professor(s):

Assistant Professor(s):

Instructors:

Room Lowry 215

Telephone: 262-524-7157

Fax: 262-524-7112

E-mail: kmcmahon@carrollu.edu

Bachelor of Arts

Mathematics BA Major

Heather Evans **Senior Lecturer**

David A. Feil **Associate Professor**

Darrel Johnson **Distinguished Lecturer**

Kristen A. Lampe **Professor**

Thomas St. George **Assistant Professor**

John C. Symms **Associate Professor**

The major in mathematics includes courses in pure and applied mathematics, offering a broad and in-depth foundation for students with diverse interests and backgrounds. All courses in the curriculum develop logical thinking, quantitative reasoning, and deductive analysis, making majors and minors highly attractive to graduate schools and employers in industry.

Combined with complementary course work, a mathematics major gives strong preparation for graduate study in an increasingly wide variety of disciplines. These include biostatistics, computer science, economics, forestry, genetics, meteorology, operations research, physics, psychology, pure and applied mathematics, sociology, and most engineering fields.

Career opportunities for those with a mathematics major are equally varied. These include positions in the fields of actuarial science, banking and financial services, communications, computer science, consulting, government, health services, management, public policy, research organizations, utilities, and transportation.

The major in mathematics is approved by the Wisconsin Department of Public Instruction for certification in mathematics.¹

Please see Academic and Program Policies in this catalog for information about how retroactive credits in calculus may be earned.

Learning Outcomes for Mathematics

Students majoring in mathematics are expected

1. To develop both skill at calculation and understanding of the theoretical underpinnings of calculus and algebra.
2. To acquire an ability to analyze, create, and communicate mathematical ideas and proofs.
3. To use logic and creativity to solve problems in a variety of mathematical disciplines.
4. To recognize that mathematical skills have applications in other settings, both academic and professional.

¹Students must normally maintain a 2.75 grade point average in the major to remain in good standing in the Teacher Education Program.

Courses in the Major

- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 206 - Transition to Adv Mathematics 4 Hour(s)
- MAT 207 - Calculus III 4 Hour(s)

- MAT 208 - Linear Algebra 4 Hour(s)
- MAT 320 - Abstract Algebra 4 Hour(s)
- MAT 380 - Internship in Mathematics 1 - 4 Hour(s)
- MAT 409 - Mathematical Analysis 4 Hour(s)
- MAT 450 - Mathematics Senior Capstone 4 Hour(s)

Two of the Following Six Courses:

- MAT 305 - Modern Geometry 4 Hour(s)
- MAT 309 - Differential Equations 4 Hour(s)
- MAT 312 - Theory of Probability & Statistics 4 Hour(s)
- MAT 324 - Numerical Analysis 4 Hour(s)
- MAT 350 - Mathematics Seminar 4 Hour(s)
- MAT 412 - Mathematical Statistics 4 Hour(s)

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- **International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Bachelor of Science

Actuarial Science Major

John Symms Associate Professor of Mathematics

Broadly speaking, actuaries are professionals who analyze financial risks of future events. Trained in mathematics, statistics, economics and finance, actuaries quantify these risks by building and evaluating mathematical models. Such analyses are essential for the success of businesses in areas such as insurance, investment, and employee benefits. The Carroll University Actuarial Science Major gives students a broad and in-depth background in these core disciplines in preparation for entry into the actuarial science profession.

Carroll University has actuarial science internship programs with Northwestern Mutual, Assurant, Milliman, and Oliver-Wyman. Each year, representatives select interns from among Carroll University Actuarial Science majors for full-time (or part-time) paid

internships. Selected student interns receive an authentic experience in the actuary profession while earning Carroll University credit. The full-time internships also include 100 hours of paid study time for the intern's next actuarial sciences exam.

Learning Outcomes for Actuarial Science

Students majoring in actuarial science are expected to:

1. Develop an understanding of the actuarial profession, what actuaries do, and how they do it.
2. Develop a knowledge base and proficiency in the core subjects needed for entry into the profession.
3. Develop an appreciation for the linkages between these core subjects.
4. Develop the critical and analytical thinking skills necessary for success in the profession.
5. Develop the communication skills that are essential in the business environment.
6. Develop the learning skills necessary for continued success in the profession.

Requirements

- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- ASC 301 - Financial Mathematics 4 Hour(s)
- ASC 302 - Probability 4 Hour(s)
- ASC 401 - Investment and Financial Markets 4 Hour(s)
- ASC 402 - Long-Term Actuarial Mathematics 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 207 - Calculus III 4 Hour(s)
- MAT 208 - Linear Algebra 4 Hour(s)
- MAT 412 - Mathematical Statistics 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CSC 110 - Problem Solving through Programming 4 Hour(s)
- CSC 220 - Information Systems 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Applied Physics Major

Greg Gabrielsen Distinguished Lecturer

Tate Wilson Senior Lecturer

Applied Physics majors may complete their degree at Carroll University, the University of Wisconsin-Platteville, or the University of Wisconsin-Milwaukee in accordance with the pre-engineering program. For details on this program see a member of the Physics faculty or Department Chair. In either case, the Applied Physics major provides a strong foundation for further studies in physics, engineering, computers, law and medicine. Applied Physics majors can find jobs after graduation in a variety of technologically demanding careers, including engineering positions with local and national firms. Other graduates have chosen to work towards an advanced degree in Engineering.

Physics minors are encouraged to select additional supporting courses in the other sciences. The minor provides excellent preparation for a career in many fields including mathematics, chemistry, biology, medicine and physical therapy.

A certification program to teach physics at the secondary level, with a minor in physics, is available. Details of this program can be obtained from either the physics or the education faculty.

Learning Outcomes for the Applied Physics

Upon completion of the major and degree requirements the successful graduate will have:

1. a robust understanding of classical physics theories, including Newtonian mechanics, classical electrodynamics, thermodynamics, and 20th century physics, as well as some current topics in physics and engineering;
2. the ability to work independently to describe a problem within a physical system and create a plan to solve that problem;
3. the ability to apply physical theories to practical problems using both analytical and numerical techniques;
4. an understanding and appreciation of the interdisciplinary nature of physics, particularly in relation to chemistry and mathematics;
5. an understanding and appreciation of the historical development of physics and the role of physics in modern technology.
6. an understanding and appreciation of the basic physical principles underlying the universe.

Fees

Specific courses that require use of equipment and disposable supplies are assigned a course fee.

Core

- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s) **or**
- PHY 101 - Introductory Physics I 4 Hour(s)

- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)

- PHY 301 - Electricity and Magnetism 4 Hour(s)
- PHY 301L - Electricity and Magnetism Laboratory 0 Hour(s)
- PHY 303 - Modern Physics 4 Hour(s)
- PHY 303L - Modern Physics Laboratory 0 Hour(s)
- PHY 304 - Classical Mechanics 4 Hour(s)
- PHY 320 - Thermodynamics 4 Hour(s)
- PHY 450 - Advanced Experimental Physics 4 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 207 - Calculus III 4 Hour(s)
- GEN 100 - Engineering Seminar I 1 Hour(s)
- GEN 101 - Engineering Seminar II 1 Hour(s)

Required Support Courses

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CSC 110 - Problem Solving through Programming 4 Hour(s)

- MAT 216 - Engineering Mathematics II 4 Hour(s) **or**
- MAT 309 - Differential Equations 4 Hour(s)
- 12 hours of electives in the Mathematics and Physics programs.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Applied Physics/Engineering Dual Degree Program Major

Greg Gabrielsen Distinguished Lecturer

Aimee Hubiak Lecturer in Engineering

Tate Wilson Senior Lecturer

Carroll University, the University of Wisconsin Platteville and the University of Wisconsin Milwaukee offer an inter-university program that allows students to earn two degrees: a B.S. in Applied Physics from Carroll University, and a B.S. in Engineering from the UW-Platteville or UW-Milwaukee. There is also an option to earn a B.S. in Applied Physics from Carroll University and an M.S. in Engineering from UW- Milwaukee. The Carroll University portion of these 3+2 programs consists of an intensive integrated experience in general engineering, physical science, applied mathematics, computation, and liberal studies. Upon completing the 3 year program at Carroll University, students transfer to the UW-Platteville or UW-Milwaukee for 2 years to complete an engineering degree in any one of the following disciplines: Civil Engineering, Electrical Engineering, Engineering Physics, Industrial Engineering, Mechanical Engineering, or Materials Science. Students receive an Applied Physics degree from Carroll University after the successful completion of their first year at UWP or UWM.

Learning Outcomes for Applied Physics/Engineering

1. Prepare students to successfully complete an intensive 2-year engineering curriculum at UW-Platteville or UW-Milwaukee.
2. Introduce students to the engineering profession, including engineering problem solving, judgment and practice.
3. Begin development of student awareness of the impact of their work on society, locally, nationally and globally.

Core Courses

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CSC 110 - Problem Solving through Programming 4 Hour(s)
- GEN 105 - Engineering Graphics 4 Hour(s)
- GEN 320 - Advanced Circuits and Electronics 2 Hour(s)
- GEN 320L - Advanced Circuits and Electronics Laboratory 0 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 207 - Calculus III 4 Hour(s)
- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s)
- PHY 301 - Electricity and Magnetism 4 Hour(s)
- PHY 301L - Electricity and Magnetism Laboratory 0 Hour(s)
- PHY 303 - Modern Physics 4 Hour(s)
- PHY 303L - Modern Physics Laboratory 0 Hour(s)
- PHY 304 - Classical Mechanics 4 Hour(s)
- PHY 320 - Thermodynamics 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) or
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Courses offered by the program

- GEN 100 - Engineering Seminar I 1 Hour(s)
- GEN 101 - Engineering Seminar II 1 Hour(s)
- GEN 105 - Engineering Graphics 4 Hour(s)
- GEN 210 - Statics and Dynamics 4 Hour(s)
- GEN 310 - Strengths of Materials 4 Hour(s)
- GEN 320 - Advanced Circuits and Electronics 2 Hour(s)
- GEN 320L - Advanced Circuits and Electronics Laboratory 0 Hour(s)
- GEN 380 - Engineering Internship 4 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- PHY 105 - Astronomy 4 Hour(s)
- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s)
- PHY 301 - Electricity and Magnetism 4 Hour(s)
- PHY 301L - Electricity and Magnetism Laboratory 0 Hour(s)
- PHY 303 - Modern Physics 4 Hour(s)
- PHY 303L - Modern Physics Laboratory 0 Hour(s)
- PHY 304 - Classical Mechanics 4 Hour(s)
- PHY 320 - Thermodynamics 4 Hour(s)
- PHY 380 - Engineering Internship 4 Hour(s)
- PHY 396 - Special Problems and Research 4 Hour(s)
- PHY 398 - Independent Study in Physics 1 - 4 Hour(s)
- PHY 450 - Advanced Experimental Physics 4 Hour(s)
- PHY 450L - Advanced Experimental Physics Laboratory 0 Hour(s)
- PHY 480 - Work-Oriented Experience 4 Hour(s)
- PHY 496 - Special Problems and Research 4 Hour(s)

Biochemistry Major

Timothy C. Flewelen Lecturer

Tanya Katzman Lecturer

Kevin McMahon Chair of Department of Computational & Physical Sciences
Associate Professor

Joseph J. Piatt Professor

Michael D. Schuder Associate Professor

Gail M. Vojta Distinguished Lecturer

The Biochemistry Program is approved by the Committee on Professional Training of the American Chemical Society. This approval means that the program has the faculty, curriculum and instrumentation necessary to provide a quality education for undergraduate students.

Learning Outcomes for Biochemistry

Upon successful completion of the biochemistry major, students will:

1. Understand the basic definitions, concepts and relationships of chemistry.
2. Develop advanced skills in evaluating library searches for primary literature.
3. Understand fundamental laboratory analyses and safety protocols.
4. Perform quantitative and qualitative scientific analyses.
5. Understand the basic theory and use of modern instrumentation.
6. Use computers for chemical applications including technical writing, modeling, data collecting and processing, and database searching.
7. Prepare effective written scientific reports and oral presentations for professional audiences.
8. Work cooperatively in problem solving situations.
9. Understand the benefits and problems of modern chemistry for our society.

Recognizing the individuality of students and that chemistry can be a strong preparation for a variety of careers, the program offers two majors, chemistry and biochemistry, each with multiple emphases. Each of these majors offers courses in the basic areas of inorganic, organic, analytical, physical, and biochemistry, and can be supplemented by special opportunities such as industrial internships and independent research. Modern scientific instrumentation is available and incorporated into all courses of the curriculum. Students are encouraged to consult with chemistry and biochemistry faculty about the various emphases and opportunities associated with each. Students must complete core courses, required support courses and the requirements for the emphasis.

Core Courses

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CHE 201 - Analytical Chemistry 4 Hour(s)
- CHE 201L - Analytical Chemistry Laboratory 0 Hour(s)
- CHE 203 - Organic Chemistry I 4 Hour(s)
- CHE 203L - Organic Chemistry I Laboratory 0 Hour(s)

- CHE 204 - Organic Chemistry II 4 Hour(s)
- CHE 204L - Organic Chemistry II Laboratory 0 Hour(s)
- CHE 308 - Biochemistry I 4 Hour(s)
- CHE 308L - Biochemistry I Laboratory 0 Hour(s)
- CHE 309 - Biochemistry II 4 Hour(s)
- CHE 401 - Advanced Chemical Analysis and Instrumentation 4 Hour(s)
- CHE 401L - Advanced Chemical Analysis and Instrumentation Laboratory 0 Hour(s)
- CHE 402 - Capstone - Modern Chemistry 2 Hour(s)
- CHE 402L - Capstone - Modern Chemistry Laboratory 0 Hour(s)

Required Support Courses

- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)
- BIO 220 - Genetics 4 Hour(s)
- BIO 220L - Genetics Laboratory 0 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)

- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s) **or**

- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s)

Choose one of the two emphases below:

Students must complete all core requirements and one of the emphases below.

- Liberal Arts Emphasis
- American Chemistry Society Approved Emphasis

Bachelor of Science Requirements

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Chemistry Major

Timothy C. Flewelen Lecturer

Tanya Katzman Lecturer

Kevin McMahon Chair of Department of Computational & Physical Sciences
Associate Professor

Joseph J. Piatt Professor

Michael D. Schuder Associate Professor

Gail M. Vojta Distinguished Lecturer

The Chemistry Program is approved by the Committee on Professional Training of the American Chemical Society. This approval means that the program has the faculty, curriculum and instrumentation necessary to provide a quality education for undergraduate students.

Learning Outcomes for Chemistry

Upon successful completion of the chemistry major, students will:

1. Understand the basic definitions, concepts and relationships of chemistry.
2. Develop advanced skills in evaluating library searches for primary literature.
3. Understand fundamental laboratory analyses and safety protocols.
4. Perform quantitative and qualitative scientific analyses.
5. Understand the basic theory and use of modern instrumentation.
6. Use computers for chemical applications including technical writing, modeling, data collecting and processing, and database searching.
7. Prepare effective written scientific reports and oral presentations for professional audiences.
8. Work cooperatively in problem solving situations.
9. Understand the benefits and problems of modern chemistry for our society.

Recognizing the individuality of students and that chemistry can be a strong preparation for a variety of careers, the program offers two majors, chemistry and biochemistry, each with multiple emphases. Each of these majors offers courses in the basic areas of inorganic, organic, analytical, physical, and biochemistry, and can be supplemented by special opportunities such as industrial internships and independent research. Modern scientific instrumentation is available and incorporated into all courses of the curriculum. Students are encouraged to consult with chemistry and biochemistry faculty about the various emphases and opportunities associated with each. Students must complete core courses, required support courses and the requirements for the emphasis.

Core Courses

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)

- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CHE 201 - Analytical Chemistry 4 Hour(s)
- CHE 201L - Analytical Chemistry Laboratory 0 Hour(s)
- CHE 203 - Organic Chemistry I 4 Hour(s)
- CHE 203L - Organic Chemistry I Laboratory 0 Hour(s)
- CHE 204 - Organic Chemistry II 4 Hour(s)
- CHE 204L - Organic Chemistry II Laboratory 0 Hour(s)
- CHE 303 - Quantum Mechanics and Spectroscopy 4 Hour(s)
- CHE 303L - Quantum Mechanics and Spectroscopy Laboratory 0 Hour(s)
- CHE 304 - Thermodynamics and Kinetics 4 Hour(s)
- CHE 304L - Thermodynamics and Kinetics Laboratory 0 Hour(s)
- CHE 308 - Biochemistry I 4 Hour(s)
- CHE 308L - Biochemistry I Laboratory 0 Hour(s)
- CHE 401 - Advanced Chemical Analysis and Instrumentation 4 Hour(s)
- CHE 401L - Advanced Chemical Analysis and Instrumentation Laboratory 0 Hour(s)
- CHE 301 - Capstone - Modern Chemistry I 2 Hour(s)
- CHE 402 - Capstone - Modern Chemistry 2 Hour(s)
- CHE 402L - Capstone - Modern Chemistry Laboratory 0 Hour(s)

Required Support Courses:

- MAT 160 - Calculus I 4 Hour(s)
- MAT 160L - Calculus I - Laboratory 0 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 161L - Calculus II - Laboratory 0 Hour(s)
- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)

Emphasis

Students must complete all core requirements and one of the emphases below.

- Liberal Arts Emphasis
- American Chemistry Society Approved Emphasis
- Forensic Science Emphasis
- Forensic Science Professional Emphasis

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Computer Science and Information Technology Majors

Chenglie Hu Professor

Michael G. Konemann Associate Professor

Marie S. Schwerm Senior Lecturer

Mission Statement

In accordance with the mission of Carroll University, the Computer Science and IT Programs provide an excellent and state-of-the-art educational opportunity for students based on their individual skill sets, interests and career goals in the areas of modern software development, business problem solving, and IT problem solving and support. Both programs enable students to combine their theoretical and technical understanding with their broad-based liberal-arts education to think analytically and critically when designing and implementing software or IT solutions.

General

The Computer Science and IT programs are grounded in the liberal arts tradition, balance theory and practice, and focus on the problem-solving skills necessary for life-long learning in a field characterized by rapid change in technology. We succeed in our mission by preparing our students through classroom work and appropriate external internships to secure fulfilling careers in the field of their choosing.

The world has been in an era of rapid technological advancement. The Internet, World Wide Web, and Mobile Computing have increasingly become critically important in corporate strategies, people's social lives and personal development. We recognize this by integrating the latest technologies into the curricula. The curricula are designed to emphasize problem solving, multiple programming paradigms, and higher order thought processes that will always be needed by corporate America under any business models.

Students interested in Gaming are encouraged also pursue a Video Game Studies minor, an interdisciplinary minor housed in the English program. This minor provides solid foundations in creativity and strategical design for game development, which complements the technical skills developed as a Computer Science major.

Computer science and information technology students at Carroll work on state-of-the-art computing facilities with the latest software application packages. They have access to Microsoft, Macintosh, and Unix/Linux computing platforms, and Oracle or Microsoft SQL Server Database Management Systems via the campus-wide network. There is equipment exclusively available for the use of computer science and information technology majors.

Learning Outcomes for Computer Science Major

Graduates of the Computer Science Program are able to:

1. Problem-solve (for business, scientific, Web, and recreational problems) through programming using multiple programming paradigms, enterprise resources, different software development frameworks, sound software design techniques and software engineering practices.
2. Successfully work in or be adapted to an organization in any business setting to meet technology challenges.
3. Further their academic pursuits and meet challenges in graduate schools by having the necessary body of theory that underpins the discipline of computer science.
4. Demonstrate an understanding of ethics as it applies to the discipline of computer science.
5. Work effectively as part of a team.

Learning Outcomes for Information Technology Major

Graduates of the Information Technology Program are able to:

1. Think creatively and analytically in technological problem-solving.
2. Problem-solve using productivity software and through computer programming.
3. Demonstrate an understanding of information system and technology evaluation and management.
4. Demonstrate an understanding of the application of new and developing technologies with sensitivity for security and ethical issues at global, societal, organizational, and personal levels.
5. Work effectively as part of a team.

Programs

- Computer Science Major
- Computer Science Minor
- Information Technology Major
- Information Technology Minor

Mathematics BS Major

Heather Evans Senior Lecturer

David A. Feil Associate Professor

Darrel Johnson Distinguished Lecturer

Kristen A. Lampe Professor

Thomas St. George Assistant Professor

John C. Symms Associate Professor

The major in mathematics includes courses in pure and applied mathematics, offering a broad and in-depth foundation for students with diverse interests and backgrounds. All courses in the curriculum develop logical thinking, quantitative reasoning, and deductive analysis, making majors and minors highly attractive to graduate schools and employers in industry.

Combined with complementary course work, a mathematics major gives strong preparation for graduate study in an increasingly wide variety of disciplines. These include biostatistics, computer science, economics, forestry, genetics, meteorology, operations research, physics, psychology, pure and applied mathematics, sociology, and most engineering fields.

Career opportunities for those with a mathematics major are equally varied. These include positions in the fields of actuarial science, banking and financial services, communications, computer science, consulting, government, health services, management, public policy, research organizations, utilities, and transportation.

The major in mathematics is approved by the Wisconsin Department of Public Instruction for certification in mathematics.¹

Please see Academic and Program Policies in this catalog for information about how retroactive credits in calculus may be earned.

Learning Outcomes for Mathematics

Students majoring in mathematics are expected

1. To develop both skill at calculation and understanding of the theoretical underpinnings of calculus and algebra.
2. To acquire an ability to analyze, create, and communicate mathematical ideas and proofs.
3. To use logic and creativity to solve problems in a variety of mathematical disciplines.
4. To recognize that mathematical skills have applications in other settings, both academic and professional.

¹Students must normally maintain a 2.75 grade point average in the major to remain in good standing in the Teacher Education Program.

Courses in the Major

- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 207 - Calculus III 4 Hour(s)
- MAT 206 - Transition to Adv Mathematics 4 Hour(s)
- MAT 208 - Linear Algebra 4 Hour(s)
- MAT 320 - Abstract Algebra 4 Hour(s)
- MAT 409 - Mathematical Analysis 4 Hour(s)
- MAT 450 - Mathematics Senior Capstone 4 Hour(s)

Three of the Following Five Courses:

- MAT 305 - Modern Geometry 4 Hour(s)
- MAT 309 - Differential Equations 4 Hour(s)
- MAT 312 - Theory of Probability & Statistics 4 Hour(s)
- MAT 324 - Numerical Analysis 4 Hour(s)
- MAT 412 - Mathematical Statistics 4 Hour(s)

Required Support Courses

(Required for primary majors only)

- CSC 110 - Problem Solving through Programming 4 Hour(s)

Note:

*To be certified by the DPI, students must take MAT 305 and MAT 312.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Minor

Actuarial Science Minor

Learning Outcomes and Assessment

Students minoring in Actuarial Science are expected to:

1. Develop an understanding of the actuarial profession, what actuaries do, and how they do it.
2. Develop a knowledge base and proficiency in the core subjects needed for entry into the profession.
3. Develop an appreciation for the linkages between these core subjects.
4. Develop the critical and analytical thinking skills necessary for success in the profession.
5. Develop the communication skills that are essential in the business environment.
6. Develop the learning skills necessary for continued success in the profession.

Requirements

- ASC 301 - Financial Mathematics 4 Hour(s)
- ASC 302 - Probability 4 Hour(s)
- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)
- MAT 160L - Calculus I - Laboratory 0 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 161L - Calculus II - Laboratory 0 Hour(s)

- MAT 207 - Calculus III 4 Hour(s)

Aviation Science and Unmanned Aircraft Systems (UAS)

Program Learning Outcomes

Upon graduation, an Aviation Science and Unmanned Aircraft Systems (UAS) Minor will:

1. Be able to understand and Demonstrate safe operations of unmanned aircraft systems
2. Be able to understand and Analyze acquired drone data using sensor payloads
3. Demonstrate competency of Python coding
4. Demonstrate the process of drone design and flight.
5. Demonstrate and analyze the process of drone detection and identification using counter drone systems.

Course of Study

- AVS 103 - Introduction to Unmanned Aircraft Systems 4 Hour(s)
- AVS 214 - Unmanned Aircraft and Autonomous Systems 4 Hour(s)
- AVS 310 - Unmanned Aircraft Systems Operations and Applications 4 Hour(s)
- AVS 400 - Unmanned Aircraft Systems (UAS) Capstone 4 Hour(s)

Biochemistry Minor

Requirements

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s) **or**
- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)
- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CHE 203 - Organic Chemistry I 4 Hour(s)
- CHE 203L - Organic Chemistry I Laboratory 0 Hour(s)
- CHE 308 - Biochemistry I 4 Hour(s)
- CHE 308L - Biochemistry I Laboratory 0 Hour(s)

Chemistry Minor

Requirements

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CHE 201 - Analytical Chemistry 4 Hour(s)
- CHE 201L - Analytical Chemistry Laboratory 0 Hour(s)
- CHE 203 - Organic Chemistry I 4 Hour(s)
- CHE 203L - Organic Chemistry I Laboratory 0 Hour(s)
- CHE 308 - Biochemistry I 4 Hour(s)
- CHE 308L - Biochemistry I Laboratory 0 Hour(s)

Computer Science Minor

Required Core Courses (16 Credits)

- CSC 110 - Problem Solving through Programming 4 Hour(s)
- CSC 111 - Introduction to JAVA 4 Hour(s)
- CSC 226 - Data Structures using JAVA 4 Hour(s)
- CSC 351 - Database Design and Implementation 4 Hour(s)

Choose Two Courses from the Following List

- CSC 240 - Computer Organization and Architecture 4 Hour(s)
- CSC 303 - Network Protocols 4 Hour(s)
- CSC 307 - Operating Systems and Web Master Fundamentals-Unix/Linux Apache 4 Hour(s)
- CSC 319 - World Wide Web Programming 4 Hour(s)
- CSC 323 - Programming Languages 4 Hour(s)
- CSC 341 - Software Design and Development 4 Hour(s)
- CSC 353 - Mobile Application Development 4 Hour(s)
- CSC 431 - Artificial Intelligence 4 Hour(s)
- CSC 440 - Software Engineering 4 Hour(s)

Area of Interest

It is recommended that student refer to the following list to choose two courses based on an area of interest:

Web Development

- CSC 319 - World Wide Web Programming 4 Hour(s)
- CSC 353 - Mobile Application Development 4 Hour(s)

Software Engineering

- CSC 341 - Software Design and Development 4 Hour(s)
- CSC 440 - Software Engineering 4 Hour(s)

Computer Science Core

- CSC 323 - Programming Languages 4 Hour(s)
- CSC 421 - Algorithms 4 Hour(s)

Information Technology Minor

Required Core Courses (20 Credits)

- CSC 110 - Problem Solving through Programming 4 Hour(s)
- CSC 220 - Information Systems 4 Hour(s)
- CSC 240 - Computer Organization and Architecture 4 Hour(s)
- CSC 303 - Network Protocols 4 Hour(s)
- CSC 409 - Information Technology Mgmt in an E-Commerce World 4 Hour(s)

Choose One Elective from the Following List:

- CSC 307 - Operating Systems and Web Master Fundamentals-Unix/Linux Apache 4 Hour(s)
- CSC 319 - World Wide Web Programming 4 Hour(s)
- CSC 351 - Database Design and Implementation 4 Hour(s)
- CSC 353 - Mobile Application Development 4 Hour(s)

Mathematics Minor

Requirements

- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)

Other Requirements

Three additional courses in Mathematics at the 200-level or higher excluding:

- MAT 201 - Foundations of Elementary Mathematics II 4 Hour(s)

Mathematics Minor, Elementary Education

As a future elementary school teacher you can combine your major with this marketable mathematics minor designed for elementary education students. You will enhance your qualifications to teach elementary school mathematics by studying proof-

writing, problem solving, introductory geometry and algebra, probability, statistics, computational thinking, and data analysis, among other subjects.

Requirements

- MAT 104 - Foundations of Elementary Mathematics I 4 Hour(s)
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or**
- MAT 160 - Calculus I 4 Hour(s)
- MAT 201 - Foundations of Elementary Mathematics II 4 Hour(s)
- MAT 206 - Transition to Adv Mathematics 4 Hour(s)
- MAT 305 - Modern Geometry 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)

Physics Minor

Core

- PHY 203 - General Physics I 4 Hour(s)
and
- PHY 203L - General Physics I Laboratory 0 Hour(s)
and
- PHY 204 - General Physics II 4 Hour(s)
and
- PHY 204L - General Physics II Laboratory 0 Hour(s) **or**
- PHY 101 - Introductory Physics I 4 Hour(s)
and
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
and
- PHY 102 - Introductory Physics II 4 Hour(s)
and
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)

Two of the Following

- PHY 301 - Electricity and Magnetism 4 Hour(s)
and
- PHY 301L - Electricity and Magnetism Laboratory 0 Hour(s)
- PHY 303 - Modern Physics 4 Hour(s)
and
- PHY 303L - Modern Physics Laboratory 0 Hour(s)
- PHY 304 - Classical Mechanics 4 Hour(s)
- PHY 320 - Thermodynamics 4 Hour(s)

Department of English, Modern Languages and Philosophy

Chairperson: B.J. Best

Professor(s):

Associate Professor(s):

Assistant Professor(s):

Instructors:

Room MacAllister 216

Telephone: 262-951-3071

Fax: 262-650-4837

E-mail: awbest@carrollu.edu

Department Faculty

Name	Title
BJ Best	Department Chair and Associate Professor of English and Writing
Jessica Boll	Associate Professor of Spanish
Elena DeCosta	Associate Professor of Spanish
Timothy Galow	Associate Professor of English and Writing
Kevin Guilfooy	Professor of Philosophy
Lara Karpenko	Associate Professor of English and Writing
Max Rondolino	Associate Professor of Philosophy

Notes on Modern Languages

To begin in any course other than 101 in Modern Languages, students need to take the placement test in French, German, or Spanish prior to the start of the semester. Placement tests will also be administered during the first weeks of classes, and placement can be changed. Any student who needs the placement test at other times should contact the program faculty to arrange a time for administration of the test. Please consult program faculty for guidance in registering for the first language course. Either placement into a course numbered 301 or higher in any of the three languages, or completion of a 202 course will demonstrate competency in that language. In order to satisfy the language requirement for the Bachelor of Arts degree, a student must take 8 credits in a modern language (MLL) other than English.

A student enrolled at Carroll in a degree program, who has completed high school courses in French, German, or Spanish language may enroll in an appropriate course at Carroll University (as determined by the program). When the student completes that course with a grade of B or higher, the student will receive retroactive credit for all courses leading up to the successfully completed course and will count toward graduation requirements. Special provisions are made for native and near-native speakers of French, German, and Spanish.

Teaching majors and minors consist of the specific modern language courses listed below plus (1) an immersion experience, e.g., New Cultural Experiences Program [NCEP] or study abroad, (2) successful completion of a language competency exam in the semester prior to the semester of student teaching, and (3) the requirements in the Teacher Education Program.

The Education department requires students seeking MC-EA (Middle Childhood through Early Adolescence) or EA-A (Early Adolescence through Adolescence) licensure in French, German, or Spanish to complete EDU 355 - Special Methods in Teaching Elementary and Secondary Subjects.

Bachelor of Arts

English and Writing Major

Timothy Galow Associate Professor of English and Writing

Lara Karpenko Associate Professor of English and Writing

B. J. Best Department Chair and Associate Professor of English and Writing

Barbara J. Kilgust Lecturer in English and Writing

We offer a combined major in English and Writing and minors in English, Creative Writing and Professional Writing. See sample four year plan.

The English and Writing major also serves as a valuable and practical double major with any program including the health sciences, social sciences, business, and education. See below our sample four-year plans for English and Writing with Business, Communication, Occupational Therapy, and Psychology.

English and Writing Major Goals:

1. To provide students with a body of knowledge about literature and other forms of representation that will allow them to recognize the interrelationship among ideas and provide them with the skills to be lifelong learners.
2. To teach students the critical and creative reading, writing and thinking skills that enable them to develop a personal value system and that will inform their understanding of their impact on the world around them.

Learning Outcomes for English and Writing

Students graduating with a degree in English and Writing will be able to

1. Develop strategies for originating and answering questions about literature.
2. Use language specific to the discourses of poetry, drama, fiction and nonfiction.
3. Analyze and respond critically to texts using research and bibliographic materials appropriate to the discipline.
4. Demonstrate the ability to synthesize and organize ideas.
5. Demonstrate knowledge of a writing process that includes reading, research, drafting, editing, and revising, and be able to analyze that process in their own writing and the writing of others.

Core Courses

British and American Literature Survey

Students must complete the following three survey courses. (12 credits)

- ENG 240 - British Literature I - Medieval to 1700 4 Hour(s)
- ENG 241 - British Literature II - 1700 to Contemporary 4 Hour(s)
- ENG 242 - American Literature - 1620 to Contemporary 4 Hour(s)

Visual Literacy

students must complete one of the following courses:

- ENG 214 - Global Film Theory and Criticism 4 Hour(s)
- ENG 288 - Images that Speak: Visual Culture before "talking films" 4 Hour(s)

Diversity/World Literature

students must complete one of the following courses: (4 credits)

- ENG 165 - Cultural Explorations of Race, Gender, and Class 4 Hour(s)
- ENG 210 - African American Literature 4 Hour(s)
- ENG 255 - Postcolonial Literature and Theory 4 Hour(s) **or**
- ENG 255H - Postcolonial Literature and Theory 4 Hour(s)
- ENG 262 - Introduction to Gender Studies 4 Hour(s)
- ENG 264 - American Indian Literature and Spirituality 4 Hour(s)

Professional English Requirement

Students must complete one of the following courses (4 credits):

- ENG 120 - Introduction to Professional Writing 4 Hour(s)
- ENG 199 - Reading and Writing in the Sciences 4 Hour(s)
- ENG 230 - Grant Writing 4 Hour(s)
- ENG 260 - Professional Writing in the Public Sphere 4 Hour(s)

Creative English Requirement

Students must complete one of the following courses (4 credits):

- ENG 205 - Interactive Fiction Writing: Stories and Games for Online Environments 4 Hour(s)
- ENG 206 - Fiction Writing 4 Hour(s)
- ENG 207 - Poetry Writing 4 Hour(s)
- ENG 333 - Advanced Creative Writing 4 Hour(s)
- ENG 350 - Literary Magazine Publishing 4 Hour(s)

Upper Division Literature Requirement

Students must complete two of the following courses (8 credits):

- ENG 300 - Great Authors I: Medieval to 1700 4 Hour(s)
- ENG 302 - Great Authors II: 1700 to Contemporary 4 Hour(s)
- ENG 303 - Milton and Moral Choice - His Age and Ours 4 Hour(s)
- ENG 304 - Shakespeare: From Stage to Screen 4 Hour(s)
- ENG 305 - Advanced Exposition and the Rhetorical Tradition 4 Hour(s)
- ENG 309 - Romantic and Victorian Literature 4 Hour(s)
- ENG 312 - Modernism 4 Hour(s)
- ENG 323 - Early Modern British Literature 4 Hour(s)

Senior capstone experience

- ENG 499 - English Major Capstone-Advanced Literature Seminar 4 Hour(s)

Modern Language Through 202

English and Writing primary majors are required to complete a Modern Language through 202

This Modern Language requirement is in addition to the minimal Bachelor of Arts language requirement.

Note:

Students majoring in English and Writing may not receive General Education(F1) credit for writing courses.

Required Support Courses

(Required for primary majors only)

Students seeking education certification must take the following courses;

- ENG 219 - Introduction to Linguistics 4 Hour(s)
- ENG 240 - British Literature I - Medieval to 1700 4 Hour(s) **or**
- ENG 304 - Shakespeare: From Stage to Screen 4 Hour(s)
- ENG 305 - Advanced Exposition and the Rhetorical Tradition 4 Hour(s)

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- ****International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.**
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Philosophy, Political Science and Economics Major

Dennis Debrecht Associate Professor of Economics

Lilly Goren Professor of Political Science

Kevin Guilfooy Associate Professor of Philosophy

Max Rondolino Assistant Professor of Philosophy

The philosophy, political science and economics (PPE) major provides students with the opportunity to form an interdisciplinary integrated knowledge that combines foundational understanding of each discipline. In order to understand complex social phenomena one must approach them from several complementary disciplinary directions and analytical frameworks. The study of philosophy equips students with broad knowledge of the ideas and theories that shape society and culture, and the intellectual tools needed for ethical reflection. The study of political science acquaints students with the political structures that govern society and introduces the complexities involved in the choices political systems and regimes regularly make. Knowledge of economics is vital for explaining and understanding the social world. There is at least some truth to Marx's claim that all social phenomena are at their core economic. All three disciplines equip students with meta-tools such as the ability to think rigorously and logically, but each employs different methodologies. This is what makes the PPE major genuinely interdisciplinary: PPE students explore contemporary questions about distributive justice; the ethical significance of the competitive market economy; and the dynamic relationships between the economic, political and legal orders by employing and integrating the tools methods and perspectives of each discipline. The PPE major provides career oriented liberal arts students with the Integrated Knowledge and Lifelong Skills necessary for success and leadership in a rapidly evolving world.

Learning Outcomes for PPE

1. Students will be able to identify and critically discuss in written and oral fashion government structures and decision making processes.
2. Students will be able to identify and critically discuss in written and oral fashion key concepts, figures, movements, and ideas in philosophy.
3. Students will be able to identify and critically discuss in written and oral fashion the function of market forces and the larger social issues related to economic forces and decision making.
4. Students will be able to identify and critically discuss in written and oral fashion the integration of the fundamental concepts and ideas of Philosophy, Political Science, and Economics and the way these ideas shape fundamental societal issues of justice, citizenship, social order, wealth and poverty, globalization, freedom, et. al.
5. Students will be able to identify, analyze, and respond critically to relevant issues using appropriate research and bibliographic materials and facilities commonly employed in the fields of Philosophy, Political Science, and Economics.

Requirements

All Philosophy, Political Science and Economics majors must take:

Core Courses

- PHI 210 - Philosophy, Politics, and Economics 4 Hour(s)

Philosophy

- PHI 101 - Introduction to Philosophy 4 Hour(s)

One 200 level course in Philosophy (4 hours)

One 300 level course in Philosophy (4 hours)

Political Science

One 100 level course in Political Science (4 hours)

One 200 level course in Political Science (4 hours)

One 300 level course in Political Science

Economics

- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)

One 300 level course in Economics (4 hours)

One additional 300 level course in Philosophy, Political Science, or Economics (4 hours)

Bachelor of Science Requirements

The requirements for a Bachelor of Science are:

- CSC 110 - Problem Solving through Programming 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- MAT 140 - Calculus and Its Applications 4 Hour(s)
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Spanish Major

Jessica Boll Associate Professor of Spanish

Elena M. DeCosta Associate Professor of Spanish

The Modern Languages program offers a major in Spanish and minors in French and Spanish.

Within the framework of a liberal arts education, the Spanish major provides students with direct linguistic contact with a culture different from their own. A culture expresses itself primarily through its language and its literature, and to comprehend another's, one must be able to communicate with the peoples of that culture.

As a general rule, courses are conducted in the target language. All majors should spend a summer, semester or year abroad. Students may choose to study abroad during a summer, semester, or full academic year by applying to the Office of International Education. Recent graduates have studied in Argentina, Costa Rica, Ecuador, Guatemala, Mexico, and Spain.

Learning Outcomes for Spanish

A student successfully completing a Spanish major at Carroll University:

- Can understand with ease virtually everything heard or read.
- Can summarize information from spoken and written sources and reconstruct arguments in a coherent presentation.
- Can express oneself spontaneously, fluently and precisely, differentiating meaning in complex situations.
- Can summarize cultural texts (literary and sociopolitical) intended for native speakers to support analysis, reflection, and research related to global issues while integrating cross-cultural perspectives.
- Can utilize a wide range of sources on cultural themes, including international and domestic sources in the target language (e.g., heritage/immigrant community newspapers, radio and TV broadcasts, or websites).
- Can utilize information from a variety of sources in the target language, including sources produced by writers in the target culture for target culture readers and listeners as well as sources produced by writers in the base culture (e.g., émigré community, for émigré readers and listeners) in order to create one's own argument, drawing appropriately on research for evidence of cultural significance.
- Can balance perspectives across cultures and evaluate sources of target culture information.

Core Courses

- SPA 201 - Intermediate Spanish I 4 Hour(s)
- SPA 202 - Intermediate Spanish II 4 Hour(s)
- SPA 301 - Conversation and Composition I 4 Hour(s)
- SPA 401 - Advanced Conversation 2 Hour(s)
- SPA 480 - Internship/Capstone Internship in Spanish 2 - 4 Hour(s)

300-Level Electives

(Choose 5)

- SPA 300 - Hispanic Linguistics 4 Hour(s)
- SPA 305 - Spanish for the Professions 4 Hour(s)
- SPA 307 - Latin American Civilization 4 Hour(s)

- SPA 308 - Hispanic Civilization 4 Hour(s)
- SPA 309 - Introduction to Hispanic Literature 4 Hour(s)
- SPA 311 - Medical Spanish 4 Hour(s)
- SPA 319 - Hispanic Cultural Studies through Journalism and Literature 4 Hour(s)

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language
**International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s)
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Four year plans are individually developed based on the students' placement level, cohort if applicable, and all open to modification.

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Minor

Creative Writing Minor

Required Courses (8 Credits)

- ENG 206 - Fiction Writing 4 Hour(s)
- ENG 207 - Poetry Writing 4 Hour(s)

Choose Two of the Following (8 Credits)

Students must choose two of the following (8 credits total):

- ENG 205 - Interactive Fiction Writing: Stories and Games for Online Environments 4 Hour(s)
- ENG 333 - Advanced Creative Writing 4 Hour(s)
- ENG 350 - Literary Magazine Publishing 4 Hour(s)

Note:

all credits must be unique to the minor.

English Minor

Students must take six courses in English (excluding ENG 170 and ENG 140).

At least 8 credits must be at the 300-level in English and no more than 8 credits may be at the 100-level.

Requirements

Students seeking certification with an English minor must take the following:

- ENG 264 - American Indian Literature and Spirituality 4 Hour(s) **or**
- ENG 165 - Cultural Explorations of Race, Gender, and Class 4 Hour(s) **or**
- ENG 210 - African American Literature 4 Hour(s) **or**
- ENG 226 - Africa: Literature and Culture of Its Many Nations 4 Hour(s) **or**
- ENG 255 - Postcolonial Literature and Theory 4 Hour(s)

- ENG 214 - Global Film Theory and Criticism 4 Hour(s) **or**
- ENG 288 - Images that Speak: Visual Culture before "talking films" 4 Hour(s)

- ENG 219 - Introduction to Linguistics 4 Hour(s)

- ENG 240 - British Literature I - Medieval to 1700 4 Hour(s) **or**
- ENG 304 - Shakespeare: From Stage to Screen 4 Hour(s)

- ENG 242 - American Literature - 1620 to Contemporary 4 Hour(s)
- ENG 305 - Advanced Exposition and the Rhetorical Tradition 4 Hour(s)

Link to Film and Television Minor

For more information on the Film and Television Minor, [click here](#).

Link to the Video Game Studies Minor

For more information on the Video Game Studies Minor, [click here](#).

French Minor

Jessica Boll Associate Professor of Spanish

Elena M. DeCosta Associate Professor of Spanish

The Modern Languages program offers a major in Spanish and minors in French and Spanish.

A student successfully completing a French minor at Carroll University:

1. Attains intermediate/advanced to advanced-level speaking, listening, writing, reading proficiency.
2. Is able to express her/himself in written and spoken French in most everyday situations with mistakes that do not hinder meaning.

3. Understands French-speaking individuals in most everyday situations, as well as written materials in French covering topics in various genres.
4. Is knowledgeable with regard to histories, cultures, customs, major political and literary events and movements, and contemporary society and issues in countries where French is the dominant language.
5. Has participated throughout her/his studies in academic, cultural or social activities off-campus, in and beyond the Carroll University and Waukesha communities, ideally through study abroad or substantial immersion experience in the target language.

Core Courses

- FRE 201 - Intermediate French I 4 Hour(s)
- FRE 202 - Intermediate French II 4 Hour(s)
- FRE 301 - Conversation & Composition 4 Hour(s)
- FRE 307 - French Civilization 4 Hour(s)
- FRE 318 - Topics in French and Francophone Literatures 4 Hour(s)

Note:

The Paris NCEP may not be used to complete the minor.

The Education department requires students seeking MC-EA (Middle Childhood through Early Adolescence) or EA-A (Early Adolescence through Adolescence) licensure in French to complete EDU 355 - Special Methods in Teaching Elementary and Secondary Subjects.

Philosophy Minor

Kevin Guilfooy	Associate Professor of Philosophy
Max Rondolino	Assistant Professor of Philosophy

Core Courses

- PHI 101 - Introduction to Philosophy 4 Hour(s)
- PHI 105 - Introduction to Logic 4 Hour(s)
- PHI 206 - Ethics 4 Hour(s)

Two Additional Philosophy Courses

Two additional philosophy courses; at least one must be at the 300 level

Professional Writing Minor

Required Course (4 Credits)

- ENG 120 - Introduction to Professional Writing 4 Hour(s)

Three of the Following Courses:

Students must complete three of the following courses (12 credits total):

- ENG 199 - Reading and Writing in the Sciences 4 Hour(s)
- ENG 230 - Grant Writing 4 Hour(s)
- ENG 260 - Professional Writing in the Public Sphere 4 Hour(s)
- ENG 305 - Advanced Exposition and the Rhetorical Tradition 4 Hour(s)
- ENG 350 - Literary Magazine Publishing 4 Hour(s)

Spanish Minor

Jessica Boll Associate Professor of Spanish

Elena M. DeCosta Associate Professor of Spanish

The Modern Languages program offers a major in Spanish and minors in French and Spanish.

Core Courses

- SPA 201 - Intermediate Spanish I 4 Hour(s)
- SPA 202 - Intermediate Spanish II 4 Hour(s)
- SPA 301 - Conversation and Composition I 4 Hour(s)
- SPA 401 - Advanced Conversation 2 Hour(s)

300-Level Elective

(choose 2)

- SPA 300 - Hispanic Linguistics 4 Hour(s)
- SPA 305 - Spanish for the Professions 4 Hour(s)
- SPA 307 - Latin American Civilization 4 Hour(s)
- SPA 308 - Hispanic Civilization 4 Hour(s)
- SPA 309 - Introduction to Hispanic Literature 4 Hour(s)
- SPA 311 - Medical Spanish 4 Hour(s)
- SPA 319 - Hispanic Cultural Studies through Journalism and Literature 4 Hour(s)

Note:

The Education Department requires students seeking MC-EA (Middle Childhood through Early Adolescence) or EA-A (Early Adolescence through Adolescence) licensure in Spanish to complete EDU 355 - Special Methods in Teaching Elementary and Secondary Subjects.

Video Game Studies Minor

The Video Game Studies minor is for students to both analyze and create video games. Game Studies is a burgeoning academic field, and rightly so, as the global video game industry's revenues are more than triple those for the film industry. But the field is

still in its infancy, which offers students the opportunity to be on the leading edge of an academic pursuit that combines humanities and the fine arts. This minor will allow students to become more thoughtful consumers of video games and also participate in the larger creation and criticism of them should they so choose.

Upon successful completion of the Video Game Studies minor, students will be able to:

1. Describe the formal elements that comprise a video game and analyze how those elements are used to contribute to a game's effects, communications, and meanings.
2. Analyze how video games (either isolated examples or broader genres) impact the societies and cultures in which they are played, as well as how those societies and cultures impact the games that are made and how they are received.
3. Create original video games that demonstrate sound game design principles and generate meanings beyond "mere" entertainment.
4. Demonstrate competency in a selected track of video game design and/or theory: art and graphics; music, sound, and voice; writing; or criticism.
5. Answer from many different perspectives: What is a video game?

Required Courses (14 Credits)

- COM 370 - Communication Technology and Society 4 Hour(s)
- ENG 115 - Video Game Creation and Design 4 Hour(s)
- ENG 215 - Video Game Studies 4 Hour(s)
- ENG 415 - Video Game Projects 2 Hour(s)

Tracks

Choose one track, then choose two courses within the track.

- Art and Graphics
- Music, Sound, and Voice
- Writing
- Criticism

Department of History, Political Science and Religious Studies

Chairperson: Lilly Goren

Professor(s):

Associate Professor(s):

Assistant Professor(s):

Instructors:

Room Explorer House #201

Telephone: 262-951-3007

Fax: 262-650-4837

E-mail: lgoren@carrollu.edu

Department Faculty

Name	Title	Area
Charles Byler	Professor of History	History
Dennis Debrecht	Associate Professor of Economics	Philosophy, Political Science and Economics
Pascale Engelmajer	Assistant Professor of Religious Studies	Religious Studies
Lilly Goren	Department Chair and Professor of Political Science	Philosophy, Political Science and Economics; Political Science
James Grimshaw	Associate Professor of Religious Studies	Religious Studies
Scott Hendrix	Associate Professor of History	History
Abigail Markwyn	Associate Professor of History	History
Kimberly Redding	Associate Professor of History	History

Bachelor of Arts

Global Studies Major

Dennis Debrecht	Master of Business Administration Director Associate Professor of Economics
Pascale Engelmajer	Assistant Professor of Religious Studies
Lilly Goren	Chair of Department of History, Political Science and Religious Studies Professor of Political Science
Kevin Guilfooy	Professor of Philosophy
Kimberly Redding	Associate Professor of History
Patricia Rodda	Assistant Professor of International Relations
Carol Tallarico	Professor of Business Administration

Global studies is an interdisciplinary major that gives students a global perspective on political and economic problems, preparing them for careers in government, business and the nonprofit sector. Students are encouraged to become fluent in a modern foreign language, and the faculty works to arrange for students to spend a semester or year of study abroad.

Learning Outcomes for Global Studies

Upon completing the global studies major students should:

1. View global challenges from a perspective that integrates political, historical, economic, cultural and normative perspectives.

2. Be able to articulate the primary theoretical frameworks used to understand the global arena.
3. Understand the role of important state and non-state actors (international and non-governmental groups and organizations) in the global arena.
4. Demonstrate strong communications skills (reading, writing and listening) as well as analytical and critical skills that enable them to dissect and solve complex problems effectively.
5. Demonstrate the capacity to conduct independent research (identify and develop a research question, design research strategies based on the application of quantitative and/or qualitative methodologies, access and interpret information from print and electronic sources, write and present a critical and analytical argument).

Core Courses

- POL 103 - Politics of the World's Nations 4 Hour(s)
- POL 155 - Contemporary Global Politics 4 Hour(s)
- POL 266 - Methods of Social Science Research 4 Hour(s)
- POL 276 - Democracy, Globalization, and International Governance 4 Hour(s)
- POL 399 - Capstone in Political Science and Global Studies 4 Hour(s)

Elective Courses: (7 Courses or 28 Credits)

Students must complete at least one course from each track below. In addition, students select a track of concentration taking an additional four courses within that track. Of those four courses within that track, at least two courses must be at the 200 or 300 level and one course must be a 200 or 300 level course coming from History, Religious Studies or Philosophy.

- Regional Track
- Issues Track
- Economics Track

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
**International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

History Major

Lilly Goren Chair of History, Political Science and Religious Studies

Scott Hendrix Associate Professor of History

Abigail M. Markwyn Professor of History

Kimberly A. Redding Associate Professor of History

The History Program offers a major in history and a minor in history. The History Program also offers a Carroll3 Plan, certification in Broadfields education (grades 7-12), and a pre-PT program that includes both a B.A. and all prerequisites for the graduate level Physical Therapy Program.

The nine-course history major serves students who not only seek an education in the liberal arts, but also realize the value of history for understanding themselves and their world. Because Carroll's history program prioritizes analytical, communicative and critical thinking skills, and because our courses often encourage interdisciplinary thinking, a history major prepares students for careers in public service, education, business, and management, while also offering a strong foundation for advanced study in library science, law and other disciplines.

Learning Outcomes for History

Upon successful completion of major requirements students will be able to:

1. Employ tools of historical analysis such as cause and effect, sequence and change over time to explain past experiences and developments.
2. Define a historical question and use appropriate methodologies to develop and evaluate possible answers.
3. Find evidence and evaluate primary and secondary sources to form sustainable conclusions in a well-argued paper.
4. Articulate and/or resolve conflicting interpretations and explain the changing nature of historical inquiry.
5. Communicate original, convincing ideas in well-organized oral and written formats.
6. Identify and explain central themes and problems of the Western World.
7. Identify and explain central themes and problems of a non-western culture.

Core Courses

One Course in Each Area

Three courses, with one course in each area, from the following:

A

- HIS 103 - Roots of the Western World 4 Hour(s)
- HIS 104 - Europe and the Modern World 4 Hour(s)
- HIS 109 - Kilts and Castles: The Middle Ages in the Movies 4 Hour(s)

B

- HIS 105 - America to 1877 4 Hour(s)
- HIS 106 - America since 1877 4 Hour(s)
- HIS 120 - Coming to America: Immigrants in U.S. History 4 Hour(s)
- HIS 122 - The End of the World: Foretelling Endtimes in American History 4 Hour(s)

C

- HIS 107 - Understanding the Premodern World 4 Hour(s)
- HIS 108 - Understanding Our Contemporary World 4 Hour(s)
- HIS 110 - History of Modern China 4 Hour(s)
- HIS 112 - Intro to Latin America History 4 Hour(s)
- HIS 121 - Comparative Genocide 4 Hour(s)

History 200, Workshop for Historians

- HIS 200 - Workshop for Historians 4 Hour(s)

Two Courses at the 200 Level from the Following:

- HIS 203 - The American Civil War 4 Hour(s)
- HIS 210 - Hist-American Foreign Relations 4 Hour(s)
- HIS 213 - Women in American History 4 Hour(s)
- HIS 215 - American Encounters: Natives, Africans, and Europeans in the Americas, 1350-1750 4 Hour(s)
- HIS 217 - Renaissance and Reformation Europe 4 Hour(s)
- HIS 218 - American Indian History 4 Hour(s)
- HIS 225H - Medieval Europe, China, and the Islamic Crescent 4 Hour(s)
- HIS 254 - Scholars, Saints, and other Medieval Ne'er Do Wells 4 Hour(s)
- HIS 257 - Europe's Civil War: 1900-1950 4 Hour(s)
- HIS 291 - Topics in History 2 - 4 Hour(s)
- HIS 298 - Independent Study in History 2 - 4 Hour(s)

Other Pre-approved Courses

Two Courses at the 300 Level from the Following:

- HIS 301 - The Forging of a Nation - The Colonial and Revolutionary Experience in North America 4 Hour(s)
- HIS 305 - Recent America 4 Hour(s)
- HIS 316 - Renaissance and Reformation Europe 4 Hour(s)
- HIS 318 - American Indian History 4 Hour(s)
- HIS 329 - The German Experience 4 Hour(s)
- HIS 391 - Topics in History 4 Hour(s)
- HIS 398 - Independent Study in History 2 - 4 Hour(s)

Note:

- All 300-level classes are research courses. Students should have some familiarity with research methodology and independent analysis and will produce a work of serious scholarship.
- At least one of the 4 courses chosen to fulfil III and IV above must be a 200 or 300-level course in Political Science, Philosophy, or Religious Studies.

History 499, Capstone: Senior Seminar for Historians

- HIS 499 - Capstone - Senior Seminar for Historians 4 Hour(s)

Teacher Certification

The department recommends that students majoring in history who seek certification to teach at the early adolescence through adolescence (formerly 6 - 12) level complete the requirements for the Broad Field Social Studies license. Please contact a history faculty member or education advisor regarding these requirements.

The State of Wisconsin requires content area examinations (Praxis II) in order to receive certification to teach at the early adolescence through adolescence level and to adequately demonstrate competence. For this reason, students seeking to teach history at this level are urged to take HIS 103, HIS 104, HIS 105, HIS 106 and HIS 108.

Pre-Physical Therapy 4 Year Plan

Courses Required to Complete a 4 Year Pre-Physical Therapy Program

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- ANP 402 - Human Anatomy 4 Hour(s)
- ANP 402L - Human Anatomy Laboratory 0 Hour(s)
- ANP 403 - Human Physiology 4 Hour(s)
- ANP 403L - Human Physiology Laboratory 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- **International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Political Science Major

Lilly Goren Chair of Department of History, Political Science and Religious Studies
 Professor of Political Science

Patricia Rodda Assistant Professor of International Relations

Jennifer Huck Chair of Department of Communication and Sociology
 Associate Professor of Sociology and Criminal Justice

Aaron Routh Senior Lecturer in Sociology

The Political Science Program offers a major and a minor in global studies and in political science. The Program also offers a Carroll3 Plan for both political science and global studies.

The major in political science prepares students for a lifetime of informed and active citizenship while teaching the skills necessary to succeed in our knowledge-based, globalized economy.

Learning Outcomes for Political Science

Political Science majors at Carroll University will develop a general knowledge of the following:

1. Major institutions (e.g., legislatures, executives, judiciaries, bureaucracies) and processes (e.g., voting, policy-making) of American governments and of diverse national political systems.
2. The main theories used to understand the global arena as well as the impact of globalization on global and national politics.
3. The structure and functions of political theorizing as well as an overview of its history.
4. Important processes and agencies within public organizations and the ethical dimensions of public service.
5. Students develop strong communication skills (reading, writing, and listening) as well as analytical and critical skills, which enable them to dissect and solve complex problems effectively.
6. Students develop the capacity to conduct independent research (identify and develop a research question, design research strategies based on the application of quantitative and/or qualitative methodologies, access and interpret information from print and electronic sources, write and present a critical and analytical argument).
7. Students are strongly encouraged to develop an understanding of the world of work by completing an internship or by participating in an off-campus program that involves contact with governments or non-governmental organizations engaged in the public policy process.

Core Courses

- POL 103 - Politics of the World's Nations 4 Hour(s)
- POL 141 - Intro to American Politics 4 Hour(s)
- POL 155 - Contemporary Global Politics 4 Hour(s)
- POL 266 - Methods of Social Science Research 4 Hour(s)
- POL 275 - Political Theory 4 Hour(s)

At Least One of the Following:

- POL 332 - Public Policy 4 Hour(s)
- POL 336 - The American Presidency 4 Hour(s)
- POL 344 - Constitutional Law and Politics 4 Hour(s)

At Least One of the Following:

- POL 301 - Politics of Developed Nations 4 Hour(s)
- POL 303 - Politics of Developing Nations 4 Hour(s)

Additional Requirements

- Two additional Politics courses
- One 200 or 300-level course in History, Philosophy, or Religious Studies
- POL 399 - Capstone in Political Science and Global Studies 4 Hour(s)

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- ****International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.**
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Religious Studies Major

Pascale Engelmajer Associate Professor of Religious Studies

James Grimshaw Associate Professor of Religious Studies

The Religious Studies Program offers a major and a minor in religious studies.

The religious studies major is designed to provide students with depth and breadth in the study of religion as universal to human experience, fundamental to human efforts to find meaning in the universe, and central to cultures around the world, past and present. As an inherently interdisciplinary field, the study of religion incorporates a wide variety of approaches, including historical, psychological, sociological, anthropological, literary, and philosophical. In addition to being provided opportunities to

reflect extensively on the big questions of human existence, students majoring in religious studies become familiar with many religious traditions, and are equipped with multiple ways of thinking about the nature of religion, its role in society, and its place in the lives of individuals. Religious studies majors may go on to careers in counseling, journalism, ministry, social work, or any number of other professions requiring strong critical thinking skills, good writing ability, and careful reading. Graduate school in a variety of fields is possible, and religious studies majors historically score very well on the LSAT for law school admission. As a minor, Religious Studies can very effectively supplement a number of majors, including, for example, literature, history, writing, psychology, or Philosophy, Political Science and Economics. Likewise, the philosophy minor not only provides a strong grounding in reasoning skills, but also background in the variety of ways human beings think about, and have thought in the past about, what matters and why.

Learning Outcomes for Religious Studies

Upon successful completion of major requirements students should be able to:

1. Articulate how religion has the power to shape individual lives and social values.
2. Critically read, evaluate, and write on the foundational texts and the significant ideas, concepts, and questions in the study of religion.
3. Demonstrate an in-depth knowledge of Christian traditions including critically reflecting on the Hebrew Bible, New Testament, and Christian history and theologies.
4. Show a basic understanding of a breadth of religious traditions including Judaism, Islam, Buddhism, Hinduism and Native American traditions.
5. Use library research tools specific to religious studies, and religious studies methodologies to construct papers, essays and class presentations.
6. Use these perspectives and skills to become a responsible citizen in a religiously plural world.
7. Identify, analyze, and compare understandings of the meaning of life, the human condition, and the nature of the good life in several religious traditions.

Core Courses

Two Introductory Courses (100 Level)

- REL 103 - Intro to the New Testament 4 Hour(s)
- REL 106 - Understanding Religion 4 Hour(s)

One Advanced Course (400 Level)

- REL 499 - Capstone: Senior Seminar 4 Hour(s)

Six Intermediate Courses (200 and 300 Level)

Six intermediate courses (200 and 300 level); at least two must be from 300 level:

Two in Christian Tradition

- REL 230 - Foundations of Christianity 4 Hour(s)

Choose one from:

- REL 201 - Jesus of Nazareth 4 Hour(s)
- REL 202 - Religious Traditions in America 4 Hour(s)
- REL 210 - Suffering and Hope 4 Hour(s)
- REL 291 - Topics in Religious Studies 4 Hour(s) **or**
- REL 391 - Topics in Religious Studies 4 Hour(s)
- REL 310 - Powers, Politics, and Pluralism in Biblical Interpretation 4 Hour(s)

Two in Religious Traditions

- REL 315 - Women in Religion 4 Hour(s)
- REL 220 - Health and Religion 4 Hour(s)
- REL 206 - Asian Religions 4 Hour(s)
- REL 216 - Judaism, Christianity, and Islam 4 Hour(s)

Two Electives

- One 200 or 300-level course in Religious Studies or Philosophy
- One 200 or 300-level course in History, Philosophy, or Political Science

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- ****International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.**
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Minor

Global Studies Minor

To complete a minor in Global Studies, students will take the 3 core courses and then choose 3 electives from one of the tracks in the Global Studies major with 2 of the 3 being courses at the 200 or 300 level.

A student interested in international business is able to pursue both an emphasis in Business and a Global Studies minor with an emphasis in international business. Regardless of track/emphasis, all students are required to take the core courses.

Core Courses

- POL 103 - Politics of the World's Nations 4 Hour(s)
- POL 155 - Contemporary Global Politics 4 Hour(s)
- POL 276 - Democracy, Globalization, and International Governance 4 Hour(s)

Cross Cultural Development

For a complete list of CCD courses, [click here](#).

History Minor

One Course in Each Area

Three courses, with one course in each area, from the following:

A

- HIS 103 - Roots of the Western World 4 Hour(s)
- HIS 104 - Europe and the Modern World 4 Hour(s)

B

- HIS 105 - America to 1877 4 Hour(s)
- HIS 106 - America since 1877 4 Hour(s)

C

- HIS 107 - Understanding the Premodern World 4 Hour(s)
- HIS 108 - Understanding Our Contemporary World 4 Hour(s)
- HIS 110 - History of Modern China 4 Hour(s)
- HIS 112 - Intro to Latin America History 4 Hour(s)

Three Additional Courses

Three additional courses at the 200- and 300-course levels. One of those three courses must be a 300-level research course and not all of them may be taken in United States History.

Medieval and Renaissance Studies Minor

The Medieval and Renaissance eras were periods of great change in European society. Many of the components of our modern world developed during these periods, from ideas such as the contract theory of government to institutions such as the Catholic Church, Parliament, and universities. This interdisciplinary minor integrates approaches from various areas of scholarship within the humanities, such as history, philosophy, English, and religious studies, to allow students to develop a holistic understanding of Medieval and Renaissance Europe.

Program Administration

Students minoring in Medieval and Renaissance Studies should meet with an advisor who teaches courses within the minor, in order to assure that requirements are met.

Mission and Program Goals

Students will gain a broad understanding of the Medieval and Renaissance eras in European history, while learning the approach that scholars in the field take to understanding these eras.

Program Learning Outcomes

1. Develop an understanding of the history and culture of Medieval and Renaissance Europe.
2. Employ tools from a variety of disciplines to identify, explore, and explain socio-cultural problems during the period.
3. Understand the reception and impact of ideals from classical antiquity on medieval and Renaissance cultures.

Required Courses

The student in the Medieval and Renaissance Studies minor will be required to take five (5) courses, drawn from the following lists. Students must take at least one (1) class from each of the three areas of concentration (Literature, History, Religion and Philosophy):

Literature

- ENG 240 - British Literature I - Medieval to 1700 4 Hour(s)
- ENG 301 - Chaucer 4 Hour(s)
- ENG 304 - Shakespeare: From Stage to Screen 4 Hour(s)
- ENG 323 - Early Modern British Literature 4 Hour(s)

History

- HIS 225H - Medieval Europe, China, and the Islamic Crescent 4 Hour(s)
- HIS 254 - Scholars, Saints, and other Medieval Ne'er Do Wells 4 Hour(s)
- HIS 316 - Renaissance and Reformation Europe 4 Hour(s)

Religion and Philosophy

- PHI 322 - Great Ideas in the History of Philosophy 4 Hour(s)
- REL 230 - Foundations of Christianity 4 Hour(s)

Political Science Minor

Requirements (20 Credits)

- POL 103 - Politics of the World's Nations 4 Hour(s)
- POL 141 - Intro to American Politics 4 Hour(s)
- Plus three additional Politics courses

Religious Studies Minor

Two Introductory Courses (100 Level)

- REL 103 - Intro to the New Testament 4 Hour(s)
- REL 106 - Understanding Religion 4 Hour(s)

One Course in Christian Tradition

- REL 201 - Jesus of Nazareth 4 Hour(s)
- REL 202 - Religious Traditions in America 4 Hour(s)
- REL 210 - Suffering and Hope 4 Hour(s)
- REL 230 - Foundations of Christianity 4 Hour(s)

- REL 291 - Topics in Religious Studies 4 Hour(s) **or**
- REL 391 - Topics in Religious Studies 4 Hour(s)

- REL 310 - Powers, Politics, and Pluralism in Biblical Interpretation 4 Hour(s)

One in Religious Traditions

- REL 315 - Women in Religion 4 Hour(s)
- REL 220 - Health and Religion 4 Hour(s)
- REL 206 - Asian Religions 4 Hour(s)
- REL 216 - Judaism, Christianity, and Islam 4 Hour(s)

One Elective in Religion or Philosophy, 300 or Above

Department of Life Sciences

Chairperson: Matthew Scheel

Professor(s):

Associate Professor(s):

Assistant Professor(s):

Instructors:

Room Rankin 308
Telephone: 262-524-7253
Fax: 262-524-7112

E-mail: mscheel@carrollu.edu

Bachelor of Science

Animal Behavior Major

Susan E. Lewis Professor of Biology

Matthew H. Scheel Associate Professor of Psychology

Joshua Wolf Assistant Professor of Psychology

The interdisciplinary major in Animal Behavior supports the mission of Carroll University and the College of Arts and Sciences. The program is designed to give students a thorough knowledge of Animal Behavior within the domains of comparative psychology, behavioral ecology, and behavioral neuroscience. It will also enrich students' ability to apply scientific methods to understand the behavior of animals. The major will provide a foundation for those who wish to pursue graduate studies or professional careers in animal behavior or a related field, including veterinary medicine.

Learning Outcomes for Animal Behavior

As students progress through the animal behavior major, they will strengthen their abilities to:

1. Define and describe animal behavior-related terminology and concepts.
2. Understand experimental design.
3. Execute empirical procedures.
4. Demonstrate multiple effective communication skills.

Core Courses

- ANB 101 - The Science of Animal Behavior 4 Hour(s)
- ANB 101L - The Science of Animal Behavior Laboratory 0 Hour(s)
- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- BIO 417 - Behavioral Ecology 4 Hour(s)
- BIO 417L - Behavioral Ecology Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 240 - Biopsychology 4 Hour(s)
- PSY 314 - Learning and Animal Behavior 4 Hour(s)
- PSY 401 - Behavioral Neuroscience 4 Hour(s)
- PSY 414 - Research Methods in Behavior Analysis 2 Hour(s)
- ANB 380 - Internship in Animal Behavior 2 - 4 Hour(s)

Required Support Courses (4 Credits)

- ENG 199 - Reading and Writing in the Sciences 4 Hour(s)

Bachelor of Science Requirements

(Animal Behavior and Psychology majors only)

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Biology Major

Roberto Brenes Assistant Professor

Cynthia J. Horst Associate Professor

Todd D. Levine Senior Lecturer

Susan E. Lewis Professor

Christine L. Schneider Associate Professor

The Biology program is committed to transforming students into Biologists with enhanced skills in critical thinking and scientific reasoning. Students will learn in an environment that fosters creativity, independent thinking, and the application of knowledge in the biological sciences. When Biology students graduate from Carroll University they will have the confidence and skills necessary to be successful professionals in a dynamic global work force.

The biology major is designed to give students excellent preparation for graduate study or professional careers in life science areas such as molecular biology, physiology, field biology, research, teaching, dentistry, medicine, physical therapy, physician assistant, or veterinary medicine. All students have opportunities to develop excellent research skills throughout the core courses and upper-level biology electives, and many students collaborate with biology faculty on their current scholarly research.

Learning Outcomes for Biology

After completing the Biology major, students will:

- Understand foundational principles across ecological, organismal, and cellular/molecular fields in biology
- Be able to apply foundational knowledge to solve biological problems
- Interpret and generate scientific data (graphical or other formats)
- Develop hypotheses, design controlled experiments, and perform data analyses
- Understand the theoretical basis of fundamental laboratory techniques

- Communicate scientific information through written or oral formats
- Develop informational research skills by reading scientific textbooks, articles, and searching peer-reviewed databases

Students in the Biology program may be considered for graduation with program honors if they complete the following requirements: GPA, Biology courses: 3.6 or higher GPA, Overall: 3.4 or higher

Presentation of research project results at a regional or national meeting (e.g., BBB or a disciplinary society) or submission of a manuscript to a peer-reviewed journal Demonstrated commitment to the biology profession, broadly defined, above and beyond that of the average student. Evidence of such commitment will come from one or more of the following:

- Active membership in Beta Beta Beta, the Biological Honor Society.
- Active membership in a professional/scholarly organization related to biology (e.g., Ecological Society of America, American Society for Microbiology, etc.).
- Significant educational activity/outreach (e.g., tutoring, mentoring) at the university or other level.
- Consistent and sustained volunteer activity in an organization working on environmental, health, or other issues relevant to biology.
- Significant research activity separate from or above and beyond the capstone.
- Sustained activity in science-related policy/consulting in communication, journalism, government, public policy, business, industry or education.

The Biology faculty will review these requirements for all graduating seniors in the spring semester of each year.

Fees

Specific courses that require use of transportation, equipment or disposable supplies are assigned a course fee.

Core Courses

- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)
- BIO 220 - Genetics 4 Hour(s)
- BIO 220L - Genetics Laboratory 0 Hour(s)
- BIO 225 - Organismal Physiology 4 Hour(s)
- BIO 225L - Organismal Physiology Laboratory 0 Hour(s)
- BIO 395 - Professional Readiness in the Biological Sciences 2 Hour(s)
- BIO 495 - Integrating Biological Sciences 2 Hour(s)

Required Support Courses

(*Required for primary majors only)

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CHE 203 - Organic Chemistry I 4 Hour(s)
- CHE 203L - Organic Chemistry I Laboratory 0 Hour(s)

Four Elective Courses

Including at least one course from each area listed below:

Ecological

- BIO 333 - Ecology 4 Hour(s)
and
- BIO 333L - Ecology Laboratory 0 Hour(s)

- BIO 360 - Aquatic Ecology 4 Hour(s)
and
- BIO 360L - Aquatic Ecology Laboratory 0 Hour(s)

- BIO 417 - Behavioral Ecology 4 Hour(s)
and
- BIO 417L - Behavioral Ecology Laboratory 0 Hour(s)

- BIO 462 - Conservation Biology 4 Hour(s)

Organismal

- BIO 322 - Comparative Vertebrate Zoology 4 Hour(s)

- BIO 322L - Comparative Vertebrate Zoology Laboratory 0 Hour(s)

- BIO 350 - Endocrinology 4 Hour(s)

- ANP 403 - Human Physiology 4 Hour(s)
and
- ANP 403L - Human Physiology Laboratory 0 Hour(s)

Cellular/Molecular

- BIO 332 - Gene Manipulation and Genomics 4 Hour(s)
- BIO 332L - Gene Manipulation and Genomics Lab 0 Hour(s)
- BIO 412 - Microbiology 4 Hour(s)
- BIO 412L - Microbiology Laboratory 0 Hour(s)
- BIO 452 - Cell Biology 4 Hour(s)
- BIO 452L - Cell Biology Laboratory 0 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**

- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Environmental Science Major

Kelly J. LaBlanc Senior Lecturer of Environmental Science

Joseph J. Piatt Professor of Chemistry and Environmental Science

The Environmental Science program offers a major and 3 related minors: Earth Science, Environmental Studies, and Natural Resource Management.

The environmental science major is an interdisciplinary science program which explores the interactions and relationships between human and natural systems. Through core classes, students integrate geologic, atmospheric, chemical and biological knowledge to address natural resource management and environmental issues. The environmental science program allows the student to tailor the curriculum to his or her professional goals.

Environmental science is a growing field which requires only a bachelor's degree in most job sectors. The environmental science major prepares students for careers in natural resource management, environmental protection, conservation, environmental consulting, government, and air, water, and soil quality.

The Environmental Science program helps manage a 63-acre field station. Located in the beautiful Kettle Moraine region just west of campus, the Greene Field Station features a trout stream, cold-water springs, extensive wetlands, and an on-site teaching and research facility. This site provides students with many opportunities for outdoor laboratory and research activities.

In addition, students in the program can earn a master's degree in environmental science via our 3+2 partnerships with Alaska Pacific University (APU) in Anchorage or with the School of Freshwater Sciences (SFS) at the University of Wisconsin-Milwaukee. Students who enroll at Carroll for three years and then transfer to APU or UW-Milwaukee earn both a bachelor's degree from Carroll University and a master's degree from APU or UW-Milwaukee.

Core Learning Outcomes

The Bachelors of Science degree in Environmental Science is designed so that students...

- Develop a scientific understanding of the biological, chemical, and physical aspects of environmental systems.
- Understand the interrelationships between human and environmental systems.
- Acquire laboratory and field skills for measuring environmental systems.
- Analyze environmental data and issues using quantitative and qualitative methods.
- Develop skills necessary to communicate scientific and resource management information.

Fees

Specific courses that require use of equipment and disposable supplies are assigned a course fee.

Core Requirements

- ENV 105 - Earth Science 4 Hour(s)
- ENV 105L - Earth Science Laboratory 0 Hour(s)
- ENV 150 - Climate Science 4 Hour(s)
- ENV 150L - Climate Science Laboratory 0 Hour(s)
- ENV 201 - Problem Solving in Environmental Systems 4 Hour(s)
- ENV 277 - Natural Resource Management 4 Hour(s)
- ENV 325 - Soils and Hydrology 4 Hour(s)
- ENV 367 - Geographic Information Systems 4 Hour(s)
- ENV 370 - Earth Surface Processes 4 Hour(s)
- ENV 370L - Earth Surface Processes Laboratory 0 Hour(s)
- ENV 455 - Watershed Management 4 Hour(s)

Required Supporting Courses

- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Graduate Degree in Freshwater Science

After completing three years of coursework at Carroll University, students transfer to the University of Wisconsin-Milwaukee and enter either the Professional or Thesis Track of the Master of Science program at the School of Freshwater Sciences (SFS). Coursework from UW-Milwaukee then transfers back to Carroll University to complete the Bachelor of Science degree in Environmental Science.

In preparation for this graduate program, students must have a minimum GPA of 3.30 and meet all of UW-Milwaukee and the SFS graduate admission requirements. Before transferring to SFS, students must complete a minimum of 110 credits for the Professional Track and 115 credits for the Thesis Track at Carroll University including the required core and support courses for the Environment Science major, the Pioneer Core Program, and the following additional course requirements:

Professional Track

- PHI 192 - Environmental Ethics 4 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)

Thesis Track

- PHI 192 - Environmental Ethics 4 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)
- MAT 160L - Calculus I - Laboratory 0 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 161L - Calculus II - Laboratory 0 Hour(s)
- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s)

Marine Sciences Major

Roberto Brenes Assistant Professor of Biology

Susan E. Lewis Professor of Biology

Carroll University offers access to majors in marine biology and oceanography via a cooperative arrangement with Hawaii Pacific University (HPU). The objective of the Marine Science Program at HPU is to help students gain a scientific understanding of the world's oceans and the life they contain, and a sense of appreciation for their beauty and fragility. Students are given a theoretical framework in the basic and applied sciences as well as ample opportunities to get hands-on experience conducting laboratory and field observations and experiments. Lecture and laboratory facilities are located on the Hawaii Loa Campus of Hawaii Pacific University. The campus is only a twenty-minute drive from Kaneohe Bay, a large natural embayment protected from the open ocean by the only true barrier reef in the Hawaiian Islands. This bay serves as one of the finest natural laboratories in the world for studying the marine sciences, and its protected nature allows HPU students to do field work in almost any type of weather.

Students desiring to major in marine biology or oceanography will spend two years at Carroll University taking basic science and liberal arts courses. After the two years, students transfer to Hawaii Pacific University and complete the requirements for a Marine Biology/Oceanography degree from Hawaii Pacific University.

Marine Biology or Oceanography Major

Science and Mathematics

Science and mathematics courses taken at Carroll University

- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)
- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- ENV 105 - Earth Science 4 Hour(s)
- ENV 105L - Earth Science Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)

- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- **or**
- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)

- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- **or**
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s)

Additional Courses

Additional Courses to fulfill HPU's General Education Curriculum (contact a Marine Biology advisor for a listing of all approved general education courses)

Communication Skills:

- ENG 170 - Writing Seminar 4 Hour(s)

Plus 1 Additional Course

Example:

- SPA 101 - Elementary Spanish I 4 Hour(s) **or**
- COM 101 - Principles of Communication 4 Hour(s)

Global Systems:

1 Course

Example:

- ECO 105 - History of Economic Thought 4 Hour(s) **or**
- HIS 104 - Europe and the Modern World 4 Hour(s)

Research and Epistemology:

- Requirements are completed at HPU

Values and Choices:

3 Courses

Examples:

- ENV 292 - Environmental Ethics 4 Hour(s)
- PHI 101 - Introduction to Philosophy 4 Hour(s)

World Cultures:

- CCS 100 - Cultural Seminar 4 Hour(s)

Plus 2 Additional Courses

Example:

- REL 102 - Introduction to the Hebrew Bible 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Sample Program at Carroll University

Freshman

Fall

- CCS 100 - Cultural Seminar 4 Hour(s)
- BIO 120 - General Biology I 4 Hour(s)
- COM 101 - Principles of Communication 4 Hour(s)
- MAT 130 - Elementary Functions 4 Hour(s)

Spring

- ENG 170 - Writing Seminar 4 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)

Sophomore

Fall

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- HIS 104 - Europe and the Modern World 4 Hour(s)

Spring

- CHE 110 - Principles of Chemistry II 4 Hour(s)
- ENV 105 - Earth Science 4 Hour(s) (Oceanography majors only)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- SOC 110 - Cultural Anthropology 4 Hour(s)

Sample Program for Marine Biology at Hawaii Pacific University

Summer at CU or HPU Before Junior Year

- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s) **or**
- HPU Physics I and HPU Physics II

Fall and Spring Junior Year

- Oceanographic Field Techniques
- Ecology
- General Oceanography I and II
- Argument, Research, Writing
- Marine Biology
- Cell and Molecular Biology
- Plus Elective

Senior Year

- Marine Ecology
- Evolutionary Genetics
- Plant Biology
- Marine Invertebrate Zoology
- Seminar: Marine Biology Seminar
- The World Problematique
- Fundamental Organic Chemistry
- Comparative Animal Physiology
- Biometry
- Plus Elective

Sample Program for Oceanography at Hawaii Pacific University

Summer at CU or HPU Before Junior Year

- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s) **or**
- HPU Physics I and HPU Physics II

Fall and Spring Junior Year

- Oceanographic Field Techniques
- Ecology
- General Oceanography I and II
- Argument, Research, Writing
- Marine Biology
- Cell and Molecular Biology
- Plus Elective

Senior Year

- Marine Ecology
- Evolutionary Genetics
- Plant Biology

- Marine Invertebrate Zoology
- Seminar: Marine Biology Seminar
- The World Problematique
- Fundamental Organic Chemistry
- Comparative Animal Physiology
- Biometry
- Plus Elective

Psychology Major

Nicole Depowski Lecturer in Psychology

Jessica Lahner Lecturer of Clinical/Counseling Psychology

Abigail Riemer Assistant Professor

Matthew Scheel Chair of Department of Life Sciences
Associate Professor of Psychology

Tara Schmidt Senior Lecturer

Joshua Wolf Assistant Professor

Psychology is a life science that focuses upon the physical and mental processes that underlie individual behavior. This definition provides a focus for the objectives of the psychology program at Carroll University. The program numbers among its liberal learning objectives those of enriching students' understanding of scientific methods and giving students a thorough knowledge of the subject matter central to their better comprehending people.

In addition to its emphasis upon liberal learning, the program strives to offer a major that provides an excellent foundation for those who wish to pursue graduate studies. The program takes great pride in its strong track record of launching psychology majors into academic and professional careers. Academic careers include teaching and research in biological, cognitive, or social psychology; professional careers include serving people in clinical, counseling, or industrial/organizational settings.

Program Goals for Psychology

1. Majors will understand psychology as a scientific discipline with regard to its content and research methods.
2. Majors will demonstrate intellectual skills in thinking, communication, information gathering and synthesis, as well as in quantitative and scientific methodology.
3. Demonstrate effective written skills.
4. Demonstrate effective interpersonal communication skills.

Learning Outcomes

Upon successful completion of the Psychology major, students will be able to:

1. Define and describe psychology-related terminology and concepts
2. Evaluate and generate psychological research
3. Demonstrate multiple effective communication skills
4. Work effectively in a team environment

A minimum of 40 graded psychology credits are required for the major. Core courses in the major include Psychology 101, 307, and at least one capstone course. Capstone courses include Psychology 403, 492, and 480 (for 4 graded credits). Students who take one capstone course are eligible to take either (or both) remaining capstone courses for psychology credit. In addition to Psychology 101, 307, and a capstone option, complete additional requirements by selecting 28 credits from remaining psychology courses (excluding 398).

Fees

Specific courses that require use of equipment and disposable supplies including certain types of psychological tests are assigned a course fee.

Core Required Courses

- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 307 - Experimental Psychology 4 Hour(s)
- PSY 307L - Experimental Psychology Lab 0 Hour(s)

- PSY 403 - Historical and Modern Viewpoints of Psychology 4 Hour(s) **or**
- PSY 480 - Internship in Psychology 2 - 4 Hour(s) **or**
- PSY 492 - Research Seminar 4 Hour(s)

Note:

Forty credits in Psychology. These credits can (but are not required to) complete an area grouping. (Cannot include both PSY 206 and PSY 221.)

Forty credits are required as a minimum.

Only courses listed as psychology (PSY) courses may be used as core courses for a psychology major or count toward a psychology minor.

Suggested 40 Credit Groupings:

Clinical/Counseling

- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 201 - Abnormal Psychology 4 Hour(s)
- PSY 206 - Developmental Psychology 4 Hour(s)
- PSY 240 - Biopsychology 4 Hour(s)
- PSY 306 - Psychological Testing and Assessment 4 Hour(s)
- PSY 307 - Experimental Psychology 4 Hour(s)
- PSY 321 - Personality - Theory and Assessment 4 Hour(s)
- PSY 416 - Applied Cognitive-Behavioral Therapy 4 Hour(s)
- 4 additional PSY credits
- A capstone course

Industrial/Organizational

- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 211 - Industrial and Organizational Psychology 4 Hour(s)
- PSY 228 - Consumer Behavior 4 Hour(s)
- PSY 303 - Social Psychology 4 Hour(s)
- PSY 306 - Psychological Testing and Assessment 4 Hour(s)
- PSY 307 - Experimental Psychology 4 Hour(s)
- PSY 316 - Thinking, Problem Solving, and Cognition 4 Hour(s)
- PSY 321 - Personality - Theory and Assessment 4 Hour(s)
- 4 additional PSY credits
- A capstone course

Research

- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 240 - Biopsychology 4 Hour(s)
- PSY 303 - Social Psychology 4 Hour(s)
- PSY 307 - Experimental Psychology 4 Hour(s)
- PSY 314 - Learning and Animal Behavior 4 Hour(s)
- PSY 316 - Thinking, Problem Solving, and Cognition 4 Hour(s)
- PSY 401 - Behavioral Neuroscience 4 Hour(s)
- PSY 414 - Research Methods in Behavior Analysis 2 Hour(s)
- PSY 492 - Research Seminar 4 Hour(s)
- 4 additional PSY credits

Pre-PT

- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 201 - Abnormal Psychology 4 Hour(s)
- PSY 221 - Life-Span Psychology 4 Hour(s) **or**
- PSY 206 - Developmental Psychology 4 Hour(s)
- PSY 240 - Biopsychology 4 Hour(s)
- PSY 260 - Health Psychology 4 Hour(s)
- PSY 303 - Social Psychology 4 Hour(s) **or**
- PSY 321 - Personality - Theory and Assessment 4 Hour(s)
- PSY 307 - Experimental Psychology 4 Hour(s)
- PSY 401 - Behavioral Neuroscience 4 Hour(s)
- PSY 403 - Historical and Modern Viewpoints of Psychology 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- 4 additional PSY credits

Pre-Physical Therapy 4 Year Plan

Courses Required

Courses required to complete a 4 year Pre-Physical Therapy Program

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- ANP 402 - Human Anatomy 4 Hour(s)
- ANP 402L - Human Anatomy Laboratory 0 Hour(s)
- ANP 403 - Human Physiology 4 Hour(s)
- ANP 403L - Human Physiology Laboratory 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)

Bachelor of Science Requirement

(Animal Behavior and Psychology majors only)

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- OR**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- AND**
- ENG 170 - Writing Seminar 4 Hour(s)

Note:

Degree requirements cannot be waived.

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Minor

Animal Behavior Minor

The course of study for this minor will consist of 5 courses:

It is recommended that students take BIO 120 prior to enrollment in ANB 101.

Requirements

- ANB 101 - The Science of Animal Behavior 4 Hour(s)
- ANB 101L - The Science of Animal Behavior Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 240 - Biopsychology 4 Hour(s)
- PSY 314 - Learning and Animal Behavior 4 Hour(s)

One of the Following

- ANB 250 - Introduction to Canine Care, Behavior & Training 4 Hour(s)
and
- ANB 250L - Introduction to Canine Care, Behavior & Training Laboratory 0 Hour(s)

- ANB 255 - Advanced Skills in Canine Management & Training 4 Hour(s)
and
- ANB 255L - Advanced Skills in Canine Management & Training Laboratory 0 Hour(s)

- ANB 260 - Fundamentals of Wildlife Rehabilitation 2 Hour(s)
- ANB 302 - Winter Ecology of Wolf and Lynx 3 Hour(s)

- BIO 417 - Behavioral Ecology 4 Hour(s)
and
- BIO 417L - Behavioral Ecology Laboratory 0 Hour(s)

- PSY 401 - Behavioral Neuroscience 4 Hour(s)
- PSY 414 - Research Methods in Behavior Analysis 2 Hour(s)
- ANB 270 - The Human-Animal Bond 4 Hour(s)
- ANB 320 - Fundamentals of Zoo Animal Care 2 Hour(s)

Biology Minor

Requirements

- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)
- BIO 220 - Genetics 4 Hour(s)
- BIO 220L - Genetics Laboratory 0 Hour(s)
- BIO 225 - Organismal Physiology 4 Hour(s)
- BIO 225L - Organismal Physiology Laboratory 0 Hour(s)
- Two elective courses in Biology (see Electives under Biology Major)

Environmental Science Minor

Earth Science

- ENV 105 - Earth Science 4 Hour(s)
- ENV 105L - Earth Science Laboratory 0 Hour(s)
- ENV 150 - Climate Science 4 Hour(s)
- ENV 150L - Climate Science Laboratory 0 Hour(s)
- ENV 325 - Soils and Hydrology 4 Hour(s)
- ENV 370 - Earth Surface Processes 4 Hour(s)
- ENV 370L - Earth Surface Processes Laboratory 0 Hour(s)
- PHY 105 - Astronomy 4 Hour(s)

Environmental Studies

- ENV 120 - Conservation and Environmental Improvement 4 Hour(s)
- ENV 120L - Conservation and Environmental Improvement Laboratory 0 Hour(s)
- ENV 222 - Environmental Sustainability 4 Hour(s)
- ENV 252 - Contemporary Issues in Environmental Science 2 Hour(s)
- PHI 192 - Environmental Ethics 4 Hour(s)

In Addition

In addition complete one of the following paired course sequences:

- POL 155 - Contemporary Global Politics 4 Hour(s)
and
- POL 332 - Public Policy 4 Hour(s)

- CRJ 103 - Introduction to Criminal Justice 4 Hour(s)
and
- SOC 202 - Society and Ecology 4 Hour(s)

Natural Resource Management

- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- ENV 120 - Conservation and Environmental Improvement 4 Hour(s)
- ENV 120L - Conservation and Environmental Improvement Laboratory 0 Hour(s)
- ENV 201 - Problem Solving in Environmental Systems 4 Hour(s)
- ENV 277 - Natural Resource Management 4 Hour(s)

In Addition

In addition complete two of the following courses:

- ANB 302 - Winter Ecology of Wolf and Lynx 3 Hour(s)
- ENV 367 - Geographic Information Systems 4 Hour(s)
and
- ENV 455 - Watershed Management 4 Hour(s)
- BIO 333 - Ecology 4 Hour(s)
and
- BIO 333L - Ecology Laboratory 0 Hour(s)
- BIO 360 - Aquatic Ecology 4 Hour(s)
and
- BIO 360L - Aquatic Ecology Laboratory 0 Hour(s)
- BIO 462 - Conservation Biology 4 Hour(s)

Psychology Minor

Requirements

- PSY 101 - Introductory Psychology 4 Hour(s)

Additional Coursework

A minimum of 16 additional Psychology (PSY) credits, excluding PSY 398. (Cannot include both PSY 206 and PSY 221 .)

At least one elective must be 300-level or higher. Twenty credits are required as a minimum.

Department of Visual and Performing Arts

Chairperson: Jennifer Dobby

Professor(s):

Associate Professor(s):

Assistant Professor(s):

Instructors:

Room Otteson Theatre 105

Telephone: 262-524-7308

Fax: 262-574-2629

E-mail: jdobby@carrollu.edu

Department Faculty

Name	Title	<u>Area</u>
Daniel Becker	Coordinator/Assistant Professor	Graphic Communication

Darrell Brown	Director of Instrumental Activities	Music and Music Education
Amy Cropper	Associate Professor of Art	Art and Photography
Patrick Dill	Director of Choral Activities	Music and Music Education
Jennifer Dobby	Department Chair and Lecturer in Theatre Arts	Theatre and Arts Management
Peggy Thurston Farrell	Associate Professor of Art	Art and Photography
Justin Gale	Scene Shop Manager	Theatre and Arts Management
Phillip Krejcarek	Professor of Art	Art and Photography
Cecelia Mason Kuenn	Costume Shop Manager	Theatre and Arts Management
Joel Matthys	Lecturer in Music	Music and Music Education
Michael Mortensen	Lecturer in Graphic Communications	Graphic Communication
Pacia Sallomi	Professor of Art	Art and Photography
Julie VonDerVellen	Lecturer in Graphic Communications	Graphic Communication
James Zager	Associate Professor in Theatre Arts	Theatre and Arts Management

Bachelor of Arts

Art Major

Amy A. Cropper Professor of Art

Peggy Thurston Farrell Associate Professor of Art

Phillip L. Krejcarek Professor of Art

Pacia Sallomi Professor of Art

The art major offers several directions for the student who has an interest and talent in the visual arts. Individualized advising helps the student choose a major with one of the following two emphases:

1. Fine arts which prepares students for careers in gallery/museum or arts administration, or for graduate work in studio art, commercial art, art therapy, or art history.
2. Art education which prepares students for K-12 teaching certification.

All majors are encouraged to attend art exhibition openings and/or workshops and field trips sponsored or approved by the art faculty. A Sophomore Review is required of all students who declare an Art Major by their Sophomore year. Transfer students and students who declare the major later are encouraged to participate in the Sophomore Review as Juniors. Art Majors are also required to complete a senior show and career portfolio to be approved by the art faculty.

Learning Outcomes for Art

Upon graduation, the art student will be able to demonstrate:

1. Mastery of skills in his/her chosen area of emphasis.
2. Familiarity with the history of art and the ability to discuss it within the context of their work.
3. Ability to write articulately about art.
4. Ability to present self and work professionally.
5. Ability to develop a cohesive body of work.

Core Courses

- ART 106 - Drawing and Composition 4 Hour(s)
- ART 107 - Beginning Design 2D and 3D 4 Hour(s)
- ART 200 - Early Modernism to Present-Art History Survey 4 Hour(s)
- ART 213 - Themes in Art History - Prehistory to Baroque 4 Hour(s)
- ART 206 - Intermediate Drawing 4 Hour(s)
- ART 490 - Capstone in Art 4 Hour(s)

Fine Arts Emphasis

Core Courses, Plus

- ART 201 - Painting I 4 Hour(s)
 - ART 209 - Photography I 4 Hour(s) **or**
 - ART 230 - Printmaking I 4 Hour(s)
 - ART 220 - Sculpture I 4 Hour(s)
 - ART 225 - Ceramics I 4 Hour(s) **or**
 - ART 235 - Art Metals 4 Hour(s)
 - ART 301 - Painting II 4 Hour(s) **or**
 - ART 320 - Sculpture II 4 Hour(s) **or**
 - ART 325 - Ceramics II 4 Hour(s) **or**
 - ART 330 - Printmaking II 4 Hour(s) **or**
 - ART 306 - Advanced and Life Drawing 4 Hour(s)
- One elective in ART, 4 credits

In Addition:

Fine Arts students interested in gallery/museum, art therapy, arts administration or commercial art should plan to take an internship in the field. Those interested in graduate work in studio art or art history should work to fit in extra studio or art history courses, respectively, as time allows.

Students planning to go on for Art Therapy should consider adding a Psychology Minor.

Double majoring or minoring in Business or Graphic Communication may also be of interest to Fine Art students.

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- **International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Art Education Emphasis

Core Courses, Plus

- ART 209 - Photography I 4 Hour(s)
- ART 201 - Painting I 4 Hour(s)
- ART 211 - Gallery/Museum Experience 1 - 2 Hour(s)
- ART 220 - Sculpture I 4 Hour(s)
- ART 225 - Ceramics I 4 Hour(s)
- ART 230 - Printmaking I 4 Hour(s)
- ART 235 - Art Metals 4 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)

Bachelor Of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s)
- CSC 110 - Problem Solving through Programming 4 Hour(s)

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Music Major

Darrell Brown Director of Instrumental Music

Leticia Grutzmann Director of Choirs and Vocal Music, Assistant Professor of Music

Joel Matthys Assistant Professor of Music

The Music Program offers majors in music, music education and music therapy, as well as a minor in music.

Mission Statement and Program Goals

The music program at Carroll University seeks to provide instruction and high quality musical experiences to music majors and non-majors, and provide opportunities for Carroll and the larger community to experience high-caliber musical performances. We seek to develop graduates with exemplary musical skill and a strong body of knowledge suited to each individual's musical and/or career interests through rigorous training in musicianship and theory, private instruction on individual instruments and voice, and a diversity of courses in various genres, styles, and approaches to professional music-making.

Music Department Goals

- Foster conceptual understanding of musical components and processes
- Provide opportunities for continued practice in creating, interpreting, presenting, analyzing, and evaluating music
- Develop increased understanding of musical achievements from various analytical, historical, and cultural perspectives
- Develop enhanced capacities to integrate musical knowledge and skills
- Foster a set of capabilities for independent work in the music professions

Music Major

The music major is a liberal arts degree with a broad overview of the field of music, with flexibility for the student. Students will take applied lessons on their primary instrument and perform in university ensembles, as well as study music theory, musicianship, and music history, and choose multiple electives for further study. Students in the music major will complete a half-hour solo recital in their final semester of study.

For the optional performance emphasis, students spend more time in applied lessons and receive additional coursework in musicianship and music theory. Two one-hour recitals are required in successive years, usually during the junior and senior year. Acceptance into the performance emphasis requires a special audition. Performance juries are required of all music majors and minors each semester.

There is no incoming freshman entrance audition at Carroll. We accept all students as provisional music majors for their first year of study. At the end of the first year, students audition for the faculty to be elevated to full music major status. At the end of the sophomore year, the music faculty meet with every student to discuss career goals and progress.

Learning Outcomes for Music

Students studying music will develop:

- The ability to hear, identify, and work conceptually with the elements of music such as rhythm, melody, harmony, structure, timbre, and texture.
- The ability to read, realize, and understand musical notation.
- An understanding of compositional processes, aesthetic properties of style, and the ways these shape and are shaped by artistic and cultural forces.'
- An acquaintance with a wide selection of musical literature, the principal eras, genres, and cultural sources.
- The ability to develop and defend musical judgments.
- The ability to perform appropriate undergraduate level music with proficiency alone and in ensemble settings.
- Understanding of procedures for realizing a variety of musical styles.
- Knowledge and/or skills in one or more areas of music beyond basic musicianship appropriate to the individual's needs and interests.
- Understanding of and experience in one or more art forms other than music

Core Courses

Applied Lessons (13 credits)

- MUS 105 - Class Piano I 1 Hour(s)
- MUS 106 - Class Piano II 1 Hour(s)
- MUS 111 - Music Theory I 3 Hour(s)
- MUS 112 - Music Theory II 3 Hour(s)
- MUS 113 - Musicianship I 1 Hour(s)
- MUS 114 - Musicianship II 1 Hour(s)
- MUS 260 - Music as Culture 4 Hour(s)
- MUS 303 - Conducting I 2 Hour(s)
- MUS 311 - Music History I - Classical Antiquity to the Classical Period 4 Hour(s)
- MUS 312 - Music History II - Nineteenth Century to the Present 4 Hour(s)
- MUS 471 - Senior Recital 0 Hour(s)
- MUS 499 - Music Capstone 2 Hour(s)

Ensemble - 8 credits

- MUS 185 - Concert Choir 0 - 1 Hour(s)
or
- MUS 188 - Wind Ensemble 0 - 1 Hour(s)
or
- MUS 191 - Chamber Orchestra 0 - 1 Hour(s)

Applied Music (7 Credits)

4 Additional Credits of Visual and Performing Arts Coursework Outside of Music

Performance Emphasis

- MUS 211 - Music Theory III 3 Hour(s)

- MUS 212 - Music Theory IV 3 Hour(s)
- MUS 213 - Musicianship III 1 Hour(s)
- MUS 214 - Musicianship IV 1 Hour(s)
- MUS 470 - Junior Recital 0 Hour(s)

An Additional 8 Credits of Applied Music

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- ****International students who have English as their second language should contact the Registrar concerning the Modern Language requirement**
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Cross Cultural Development

For a complete list of CCD courses, [click here](#).

Musical Theatre Major

MUSICAL THEATRE PROGRAM

James Zager	Professor of Theatre & Dance
Joel Matthys	Assistant Professor of Music

Goal: To train Carroll students in the unique and demanding art of musical theatre, by creating students who become successful 'triple threats' displaying exceptional abilities in the areas of acting, singing and dance.

Learning Outcomes for Musical Theatre

Upon successful completion of the major requirements students will be able to:

1. Effectively practice the art of Musical Theatre through involvement in the creation and presentation of public performances in a variety of Musical Theatre styles and mediums.

2. Play physical actions in performance and apply vocal (breath, resonance, articulation) and physical (grounded presence, kinesthetic awareness, flexibility, tempo) technique to the creation of performance.
3. Sing with a free and authentic voice.
4. Dance proficiently in a variety of musical theatre styles.
5. Demonstrate knowledge of theatre and dance history/literature; analyze and interpret texts and performances both in writing and orally; and draw connections between theatrical practices and social contexts in both modern and pre-modern periods.
6. Illustrate an understanding of music theory and musicianship and apply it to their training.
7. Display the discipline, accountability, self-promotion and perseverance skills necessary for success in the Musical Theatre industry.

Musical Theatre Major (48 credits)

To fulfill the major requirements, students must take a total of 8 credits in MUS 169 and 4 credits in THE 100.

- DNC 205 - Jazz Dance I 2 Hour(s)
- DNC 206 - Jazz Dance II 2 Hour(s)
- DNC 211 - Theatre Dance 4 Hour(s)
- MUS 169 - Voice 0 - 2 Hour(s)
- MUS 105 - Class Piano I 1 Hour(s)
- MUS 106 - Class Piano II 1 Hour(s)
- MUS 111 - Music Theory I 3 Hour(s)
- MUS 112 - Music Theory II 3 Hour(s)
- MUS 113 - Musicianship I 1 Hour(s)
- MUS 114 - Musicianship II 1 Hour(s)
- THE 215 - Theatre History and Literature I 4 Hour(s)
- OR
- THE 216 - Theatre History and Literature II 4 Hour(s)
- THE 100 - Theatre Participation 1 Hour(s)
- THE 102 - Introduction to Performance 4 Hour(s)
- THE 301 - Contemporary Acting Styles 4 Hour(s)

Elective Requirement (minimum of 6 credits chosen from):

- DNC 111 - Introduction to World Dance 4 Hour(s)
- DNC 201 - Concert Dance I 2 Hour(s)
- DNC 202 - Concert Dance II 2 Hour(s)
- MUS 182 - Introduction to Rhythmic Movement 1 Hour(s)
- MUS 215 - Songwriting in the Digital Age 1 Hour(s)
- THE 260 - Arts Management 4 Hour(s)
- THE 302 - Period Acting Styles 4 Hour(s)
- THE 307 - Directing for the Stage 4 Hour(s)
- THE 311 - Acting for the Camera 2 Hour(s)

Theatre Arts Major

Jennifer Dobby Chair of Department of Visual and Performing Arts
Senior Lecturer in Theatre Arts

Justin Gale Scene Shop and Production Manager

Cecelia Mason Kuenn Costume Shop Manager

James Zager Associate Professor in Theatre Arts

The Theatre & Arts Management Program offers a major in Theatre Arts, and minors in Arts Management and Theatre.

The Theatre Arts Major is intended to prepare students for continued engagement in the theatre arts, arts management, theatre education, or graduate studies. Through traditional classroom work, participation in fully produced mainstage productions, a multifaceted student theatre season, and in-depth community partnerships, we strive to train the artist of today for the theatre of tomorrow.

Learning Outcomes for Theatre Arts

Upon successful completion of major requirements students will be able to demonstrate:

1. An understanding of theatre history and literature in a global context.
2. The skills necessary to take part in the collaborative theatre process.
3. The tools to create and promote theatre as a vital art form serving a diverse community.

Core Courses

- THE 100 - Theatre Participation 1 Hour(s)
and/or
- THE 300 - Theatre Practicum 1 Hour(s)

- THE 101 - Introduction to Theatre Arts 4 Hour(s)
- THE 102 - Introduction to Performance 4 Hour(s)
- THE 120 - Costume Construction & Makeup 2 Hour(s)
- THE 121 - Set Construction & Lighting 2 Hour(s)
- THE 215 - Theatre History and Literature I 4 Hour(s)
- THE 260 - Arts Management 4 Hour(s)
- THE 301 - Contemporary Acting Styles 4 Hour(s)

- THE 302 - Period Acting Styles 4 Hour(s)
- THE 307 - Directing for the Stage 4 Hour(s)
- THE 308 - Writing for the Stage 4 Hour(s)

Note:

To fulfill the major requirements, students must take a total of 4 credits in THE 100 and/or THE 300.

Experiential/Professional/Leadership Opportunities (4 credits)

Minimum of 4 credits chosen from:

- THE 296 - Special Studies/Research in Theatre 1 - 4 Hour(s)
- THE 291 - Special Studies/Topics in Theatre 1 - 4 Hour(s)
and/or
- THE 396 - Special Studies/Research in Theatre 1 - 4 Hour(s)
- THE 391 - Special Studies/Topics in Theatre 1 - 4 Hour(s)
- THE 380 - Internship in Theatre Arts 1 - 4 Hour(s)
and/or
- THE 480 - Internship in Theatre Arts 1 - 4 Hour(s)
- THE 390 - Theatre Projects 1 - 4 Hour(s)
and/or
- THE 490 - Theatre Projects 2 Hour(s)

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- **International students who have English as their second language should contact the Registrar concerning the Modern Language
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Bachelor of Science

Double Major in Business Administration and Music

Students interested in the field of music business may double-major in Business Administration and Music Liberal Arts and/or minor in Arts Management.

Core Business Administration Courses

- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)

- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 496 - Business Policies 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)

Core Music Courses

- MUS 105 - Class Piano I 1 Hour(s)
- MUS 106 - Class Piano II 1 Hour(s)
- MUS 111 - Music Theory I 3 Hour(s)
- MUS 112 - Music Theory II 3 Hour(s)
- MUS 113 - Musicianship I 1 Hour(s)
- MUS 114 - Musicianship II 1 Hour(s)
- MUS 260 - Music as Culture 4 Hour(s)
- MUS 303 - Conducting I 2 Hour(s)
- MUS 311 - Music History I - Classical Antiquity to the Classical Period 4 Hour(s)
- MUS 312 - Music History II - Nineteenth Century to the Present 4 Hour(s)
- MUS 471 - Senior Recital 0 Hour(s)
- MUS 499 - Music Capstone 2 Hour(s)

Applied Music Requirement (7 Credits)

Ensemble Requirement

8 semesters in

- MUS 185 - Concert Choir 0 - 1 Hour(s) **or**
- MUS 188 - Wind Ensemble 0 - 1 Hour(s) **or**
- MUS 191 - Chamber Orchestra 0 - 1 Hour(s)

Electives

Four credits of elective VPA coursework outside of music.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Graphic Design Major

Daniel M. Becker Associate Professor of Graphic Design

Michael Mortensen Distinguished Lecturer of Graphic Design

Julie VonDerVellen Assistant Professor of Graphic Design

Preparing Professionals One Student at a Time

Graphic Design at Carroll University is an interdisciplinary major from the graphic communication, art, business, and computer science programs. This major is offered in conjunction with a required 120-hour internship and a capstone experience in which students independently create real world projects. The two minors offered within Graphic Design are aimed toward students who plan to major in other academic programs and acknowledge the integrated usefulness of Graphic Communication within their major area of study.

Learning Outcomes for Graphic Design

Upon graduation, the graphic design student will be able to:

1. Measurably demonstrate and apply a high competency working knowledge of various digital software applications and equipment.
2. Measurably demonstrate and apply industry-standard graphic design principles as they pertain to various digital media vehicles.
3. Apply learning outcome skill sets to produce digital media projects for the purpose of communication on behalf of client/audience objectives.
4. Create communication-based creative solutions to effectively broadcast specific messages that utilize typography, color, digital photography, images, digital video and print.
5. Utilizing historical documentation for reference, case studies for application, and examples of industry trends, students will apply their skill set to create messages that communicate across a variety of media.
6. Utilizing "real world" strategy, concept and application, students will implement their skill set of technology, understanding of design theory, identification with audience, and association with various delivery methods to produce graphic communication materials that best represent client goals.
7. Participate in the writing of creative briefs, apply the dynamics of communication practices, as well as investigate and understand the role of branding, marketing, and advertising.
8. Utilize website construction software and apply the appropriate skill set to develop online portfolios and client-based solutions.
9. Develop the ability to think critically, to problem solve, and to generate creative solutions.

The graphic design industry rapidly and continuously changes. This major has progressive offerings that teach students the use of myriad tools and methodologies needed to succeed in the industry for the 21st century. The graphic design, art, business, and computer science programs combine to provide students with the latest advancements, information, and methodologies.

Requirements

- ART 106 - Drawing and Composition 4 Hour(s)
- ART 107 - Beginning Design 2D and 3D 4 Hour(s)
- GRC 106 - Intro-Communication Technology 2 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 200 - Color and Typography 4 Hour(s)
- GRC 210 - History of Graphic Design 2 Hour(s)
- GRC 290 - Digital Design Studio 4 Hour(s)
- GRC 295 - 3-D Digital Design 4 Hour(s)
- GRC 320 - Intro to Multimedia Production 4 Hour(s)
- GRC 330 - Video and Motion Graphics 4 Hour(s)
- GRC 390 - Advanced Design Thinking 4 Hour(s)
- GRC 395 - Advanced Design Application 4 Hour(s)
- GRC 450 - Capstone-Projects for Graphic Communication Majors 4 Hour(s)
- GRC 480 - Internship-Graphic Communication 1 - 12 Hour(s)

Recommended Support Courses

- ART 209 - Photography I 4 Hour(s)
- ART 230 - Printmaking I 4 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 320 - Promotion Management 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Photography Major

Students seeking an in-depth study of photography as a fine art may choose the photography major.

All majors are encouraged to attend art exhibition openings and/or workshops and field trips sponsored or approved by the Department of Visual and Performing Arts. All majors are required to create a sophomore portfolio and have a senior show and portfolio to be approved by the art faculty.

Learning Outcomes for Photography

Upon graduation, the photography student will be able to demonstrate:

1. Proficiency in the use of a variety of cameras, including digital and video.
2. Mastery in the creation and analysis of photographic images.
3. Mastery in the development of film and printing and in the presentation of the final image.
4. Knowledge of the history of photography.
5. Proficiency in the use of software to edit and manipulate images.
6. Ability to write articulately about art.
7. Ability to develop a cohesive body of work

Core Courses

- ART 106 - Drawing and Composition 4 Hour(s)
- ART 209 - Photography I 4 Hour(s)
- ART 215 - History of Photography 4 Hour(s)
- ART 200 - Early Modernism to Present-Art History Survey 4 Hour(s)
- ART 309 - Photography II - Fine Art 4 Hour(s)
- ART 310 - Photography II - Commercial 4 Hour(s)
- ART 314 - Photography II Studio Lighting 4 Hour(s)
- ART 480 - Internship in Art 1 - 4 Hour(s)
- ART 490 - Capstone in Art 4 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 330 - Video and Motion Graphics 4 Hour(s)

Note:

Students must earn a total of 4 credits in ART 480.

In Addition

In addition, students are encouraged to select from the following courses:

- BUS 101 - Introduction to Business 4 Hour(s)
- COM 203 - Advertising 4 Hour(s)
- COM 255 - Digital Journalism 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
 - CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) or
 - MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
 - CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
-
- ENG 170 - Writing Seminar 4 Hour(s)
 - Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Bachelor of Music

Music Education Major

Darrell Brown Director of Instrumental Music

Leticia Grützmann Director of Choirs and Vocal Music, Assistant Professor of Music

Joel Matthys Assistant Professor of Music

The Music Program offers majors in music, music education and music therapy, as well as a minor in music.

The Bachelor of Music in Music Education prepares students for a career as a music educator and meets the requirements of the Wisconsin Department of Public Instruction for K-12 teacher licensure. Music education students prepare to a high level within the discipline of music, including performance, theory and history for teaching careers of distinction and leadership. The central philosophy of the degree is that music teachers can be most effective only by first becoming accomplished musicians themselves, capable of performing, conducting and analyzing at a sophisticated level.

Students are required to choose either an instrumental or choral emphasis, or both. All students also complete the coursework for General Music licensure. Two half-hour recitals are required in successive years, usually during the junior and senior year.

There is no incoming freshman entrance audition at Carroll. We accept all students as provisional music majors for their first year of study. At the end of the first year, music majors audition for the faculty to be elevated to full music major status. At the end of the sophomore year, the music faculty meet with every student to discuss career goals and progress.

Students must meet all requirements of the secondary education major including the required core (except EDU 249 , EDU 290 , EDU 302 , EDU 360), all General Education courses required by the Education Department, and state licensing requirements of the Teacher Education Program (TEP).

Core Music Courses

Applied Lessons (13 credits)

- MUS 105 - Class Piano I 1 Hour(s)
- MUS 106 - Class Piano II 1 Hour(s)
- MUS 107 - Class Piano III 1 Hour(s)
- MUS 108 - Class Piano IV 1 Hour(s)

- MUS 111 - Music Theory I 3 Hour(s)
- MUS 112 - Music Theory II 3 Hour(s)
- MUS 113 - Musicianship I 1 Hour(s)
- MUS 114 - Musicianship II 1 Hour(s)
- MUS 167 - Piano 0 - 2 Hour(s)
- MUS 211 - Music Theory III 3 Hour(s)
- MUS 212 - Music Theory IV 3 Hour(s)
- MUS 213 - Musicianship III 1 Hour(s)
- MUS 214 - Musicianship IV 1 Hour(s)
- MUS 260 - Music as Culture 4 Hour(s)
- MUS 303 - Conducting I 2 Hour(s)
- MUS 304 - Conducting II 2 Hour(s)
- MUS 307 - Practical Keyboard Harmony 1 Hour(s)
- MUS 311 - Music History I - Classical Antiquity to the Classical Period 4 Hour(s)
- MUS 312 - Music History II - Nineteenth Century to the Present 4 Hour(s)
- MUS 323 - Diction - German and English 1 Hour(s)
- MUS 324 - Diction - French and Italian 1 Hour(s)
- MUS 353 - Secondary Methods 2 Hour(s)
- MUS 357 - Choral Literature & Performance Practice 2 Hour(s)
- MUS 359 - Orff/Kodaly Methods 4 Hour(s)
- MUS 366 - Voice Pedagogy 2 Hour(s)
- MUS 470 - Junior Recital 0 Hour(s)

Education Courses

- EDU 102 - Exploration in Education and Society 4 Hour(s)
- EDU 202 - Intercultural Context in Education 4 Hour(s)
- EDU 203 - Educational Psychology 4 Hour(s)
- EDU 210 - Field Experience in Education I 1 Hour(s)
- EDU 261 - Introduction to Inclusive Education 4 Hour(s)
- EDU 306 - Literacy in the Disciplines 4 Hour(s)
- EDU 353 - Instruction and Assessment for Disciplinary Content 4 Hour(s)
- EDU 409 - Secondary and K-12 Student Teaching 6 Hour(s)
- EDU 410 - Secondary and K-12 Student Teaching 6 Hour(s)

Emphasis

- Music Education Major - Instrumental Emphasis
- Music Education Major - Choral Emphasis

Bachelor of Music Requirements

- Students in the Music Education program will meet the Bachelor of Music requirements.
- Degree requirements cannot be waived.
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

- ENG 170 - Writing Seminar 4 Hour(s)

Music Therapy Major

Darrell Brown Director of Instrumental Music

Tamra Fricke Director of Music Therapy

Leticia Grützmann Director of Choirs and Vocal Music, Assistant Professor of Music

Joel Matthys Assistant Professor of Music

Music Therapy Mission

The Music Therapy Program at Carroll University seeks to develop individuals with musical sensitivity and performance proficiency, an understanding of the principles and goals of music therapy, and a complete clinical training in the techniques of therapeutic practice in preparation for the music therapy board certification exam and a career as a qualified Board Certified Music Therapist.

Music Therapy Goals

- **Preparation for Professional Practice** - Professional preparation requires the development of knowledge, skills, and abilities through education, supervision, and pre-professional experiences.
- **Musical Development** - Musical development is the acquisition of music knowledge, aesthetic sensitivity, and skills relevant to music therapy, and the application of those skills to clinical practice.
- **Personal Development of the Therapist** - Personal development involves becoming self-aware and actively seeking to further develop the self.
- **Clinical Experience** - Clinical experience involves observation and provision of music therapy services under the direct supervision of a certified music therapist. The student learns music therapy techniques to meet clients musically and clinically, demonstrating basic knowledge of assessment, treatment, documentation, and evaluation; communicates empathy and establishes therapeutic relationships; and demonstrates understanding of ethical principles and current standards of practice.

Progression Standards for Music Therapy Program

1. A cumulative GPA of 2.75 and satisfactory completion of the piano, guitar, and voice proficiency exams is required for admission to the professional phase (junior and senior years) of the program.
2. A student must maintain a cumulative university GPA and a semester GPA of 2.75 throughout the professional phase. A student who gets below a 2.75 cumulative and/or session GPA will be placed on academic probation for the following semester. To have the probationary status removed, a student must attain a 2.75 session GPA or higher in subsequent semesters.
3. If a student fails to attain a 2.75 session GPA, s/he will be dismissed from the program.
4. Grades of C or better are required in all music therapy (MTY designation) courses. A satisfactory (S) is required in all completed practica. If a grade below a C is achieved or an S is not achieved, the student may not progress to subsequent courses in the program until the course is successfully repeated.
5. A course may be repeated only one time. A student receiving a D, F, or U twice in music therapy courses (including practica) will be dismissed from the program.

6. When repeating a professional phase music therapy course, a student may be required to successfully complete ancillary learning experiences or clinical competencies/practica that validate theoretical knowledge.
7. The piano, guitar, and voice proficiency exams will only be administered once per semester. They may be repeated as often as necessary.

Reapplication Policy for Dismissed Music Therapy Students

The policy on reapplication defines the process by which students may seek readmission to the Music Therapy Program following a dismissal of the student from the program for failing to maintain good academic standing. Readmission candidates may apply for readmission to the program no sooner than one year and no later than three years from the date of the dismissal. Readmission candidates may exercise their reapplication option only once. Readmission candidates applying to the program must submit the materials required and shall be considered with all new applicants for admission. In addition, they must provide transcripts relating to any education experiences completed since leaving the program. A letter indicating why the readmission candidate believes s/he will succeed academically and technically in the program must accompany the application materials. Upon review of the materials, the program's admission selection committee may render the following decisions: 1) Approval of the request for readmission to the program, or 2) Denial of the request for readmission to the program.

Core Music Courses

- MUS 105 - Class Piano I 1 Hour(s)
- MUS 106 - Class Piano II 1 Hour(s)
- MUS 107 - Class Piano III 1 Hour(s)
- MUS 108 - Class Piano IV 1 Hour(s)
- MUS 111 - Music Theory I 3 Hour(s)
- MUS 112 - Music Theory II 3 Hour(s)
- MUS 113 - Musicianship I 1 Hour(s)
- MUS 114 - Musicianship II 1 Hour(s)
- MUS 169 - Voice 0 - 2 Hour(s)
- MUS 181 - Class Guitar 1 Hour(s)
- MUS 182 - Introduction to Rhythmic Movement 1 Hour(s)
- MUS 185 - Concert Choir 0 - 1 Hour(s)
- MUS 211 - Music Theory III 3 Hour(s)
- MUS 213 - Musicianship III 1 Hour(s)
- MUS 214 - Musicianship IV 1 Hour(s)
- MUS 215 - Songwriting in the Digital Age 1 Hour(s)
- MUS 220 - Class Guitar 2 1 Hour(s)
- MUS 260 - Music as Culture 4 Hour(s)
- MUS 303 - Conducting I 2 Hour(s)
- MUS 307 - Practical Keyboard Harmony 1 Hour(s)
- MUS 311 - Music History I - Classical Antiquity to the Classical Period 4 Hour(s)
- MUS 312 - Music History II - Nineteenth Century to the Present 4 Hour(s)
- Applied Lessons (8 credits)

Music Ensemble

Eight semesters in

- MUS 185 - Concert Choir 0 - 1 Hour(s)
- MUS 188 - Wind Ensemble 0 - 1 Hour(s)
- MUS 191 - Chamber Orchestra 0 - 1 Hour(s)

Core Music Therapy Courses

- MTY 101 - Introduction to Music Therapy 2 Hour(s)
- MTY 201 - Music Therapy Methods 2 Hour(s)
- MTY 251 - Psychology of Music 3 Hour(s)
- MTY 301 - Therapeutic Relationship in Music Therapy 2 Hour(s)
- MTY 304 - Influence of Music on Behavior 3 Hour(s)
- MTY 382 - Music Therapy Activities for Specific Populations 2 Hour(s)
- MTY 401 - Ethics and Cultural Awareness 2 Hour(s)
- MTY 402 - The Music Therapy Professional 1 Hour(s)

Required Support Courses

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 201 - Abnormal Psychology 4 Hour(s)
- PSY 221 - Life-Span Psychology 4 Hour(s)

Clinical Education Courses

- MTY 180 - Music Therapy Practicum 1 or 2 Hour(s) (must be taken 5 times)
- MTY 480 - Music Therapy Internship 1 Hour(s)

Bachelor of Music Therapy

The degree requirements for a Music Therapy major are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Minor

Art Minor

Requirements

- ART 106 - Drawing and Composition 4 Hour(s)
- ART 107 - Beginning Design 2D and 3D 4 Hour(s)

One Art History Survey Course:

- ART 200 - Early Modernism to Present-Art History Survey 4 Hour(s)
- ART 213 - Themes in Art History - Prehistory to Baroque 4 Hour(s)

Two Additional Art Studio Courses

Two additional studio art courses selected from the following:

- ART 201 - Painting I 4 Hour(s)
- ART 206 - Intermediate Drawing 4 Hour(s)
- ART 220 - Sculpture I 4 Hour(s)
- ART 225 - Ceramics I 4 Hour(s)
- ART 230 - Printmaking I 4 Hour(s)
- ART 235 - Art Metals 4 Hour(s)
- ART 301 - Painting II 4 Hour(s)
- ART 306 - Advanced and Life Drawing 4 Hour(s)
- ART 320 - Sculpture II 4 Hour(s)
- ART 325 - Ceramics II 4 Hour(s)
- ART 330 - Printmaking II 4 Hour(s)
- ART 401 - Painting III 4 Hour(s)

Arts Management Minor

Jennifer Dobby	Senior Lecturer Chair, Department of Visual and Performing Arts
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The Arts Management minor is designed for students with a major in Art, Graphic Communications, Photography, Theatre Arts, or Music, although it may have a broader appeal and is open to any student who is interested.

Learning Outcomes for Arts Management

Upon completion of the minor, students will be able to:

1. Demonstrate knowledge and understanding of arts organizations and venues, how they are managed, and their relevance within the larger community.
2. Demonstrate awareness of the role and responsibilities of the manager within arts organizations and/or venues and within the larger cultural and social context.

3. Explain and respond to the challenges faced by arts managers and arts organizations in the areas of organization, promotion, funding and legal issues

Courses Required for the Minor

- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- THE 260 - Arts Management 4 Hour(s)

One of the Following:

- ART 213 - Themes in Art History - Prehistory to Baroque 4 Hour(s)
- ART 215 - History of Photography 4 Hour(s)
- MUS 151 - History of Jazz 4 Hour(s)
- MUS 158 - Rock Music - Roots and History 4 Hour(s)
- THE 101 - Introduction to Theatre Arts 4 Hour(s)
- THE 215 - Theatre History and Literature I 4 Hour(s)

One of the Following:

- ACC 205 - Financial Accounting 4 Hour(s)
- BUS 265 - Human Resource Management 4 Hour(s)
- COM 203 - Advertising 4 Hour(s)
- COM 208 - Introduction to Public Relations 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- ENG 230 - Grant Writing 4 Hour(s)
- LEA 190 - Leadership and Personal Effectiveness 4 Hour(s)
- LEA 302 - Leadership Theory and Practice 4 Hour(s)

Note:

Arts Management minors interested in applying for Carroll's MBA program should choose ACC 205 (an elective above), ECO 124, and plan to take CMP 112.

Film and Television Minor

Jennifer Dobby	Senior Lecturer Chair, Department of Visual and Performing Arts
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Program Goal:

To understand the economic, social, political, ideological and global contexts of screen media in order to cement the marketability and importance of film and television expertise within a breadth of industries.

Upon graduation, a Film and Television Minor will:

1. Understand the history, theory and production of film and television, as well as the emerging technological platforms in the field.
2. Receive hands-on training in writing, editing and producing innovative screen media: short films, television spots or commercials, music videos and computer animation.
3. Critically analyze the economic and political impact of film and television on individuals and society, and understand how to work within a global media culture.
4. Acquire crucial business skills such as budgeting, marketing and project/personnel management.
5. Grow a portfolio of written and on-screen work to take into the job market or screen industries.

Course of Study (24 Credits)

- COM 101 - Principles of Communication 4 Hour(s) or
- COM 140 - Media Literacy 4 Hour(s)

- ENG 214 - Global Film Theory and Criticism 4 Hour(s)

- ENG 288 - Images that Speak: Visual Culture before "talking films" 4 Hour(s) or
- COM 317 - Communication Criticism 4 Hour(s)

- THE 311 - Acting for the Camera 2 Hour(s) or
- THE 312 - Directing for the Camera 2 Hour(s)

- THE 313 - Writing the Short Film 4 Hour(s) or
- THE 314 - Writing for Television 4 Hour(s)

- GRC 330 - Video and Motion Graphics 4 Hour(s)
- THE 490 - Theatre Projects 2 Hour(s)

Fall

- COM 101 - Principles of Communication 4 Hour(s)
- COM 140 - Media Literacy 4 Hour(s)
- ENG 288 - Images that Speak: Visual Culture before "talking films" 4 Hour(s) (Odd)
- THE 311 - Acting for the Camera 2 Hour(s) (Even)
- THE 312 - Directing for the Camera 2 Hour(s) (Odd)
- GRC 330 - Video and Motion Graphics 4 Hour(s)

Spring

- COM 101 - Principles of Communication 4 Hour(s)
- COM 317 - Communication Criticism 4 Hour(s)
- THE 313 - Writing the Short Film 4 Hour(s) (Even)
- THE 314 - Writing for Television 4 Hour(s) (Odd)
- THE 490 - Theatre Projects 2 Hour(s)

Graphic Design Minor

Requirements (20 Credits)

- ART 209 - Photography I 4 Hour(s)
- GRC 106 - Intro-Communication Technology 2 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 200 - Color and Typography 4 Hour(s)
- GRC 210 - History of Graphic Design 2 Hour(s)
- GRC 320 - Intro to Multimedia Production 4 Hour(s)

Music Minor

Core Courses

6 Credits Applied Music (Lessons)

6 Semesters of Music Ensemble

- MUS 185 - Concert Choir 0 - 1 Hour(s) **or**
- MUS 188 - Wind Ensemble 0 - 1 Hour(s) **or**
- MUS 191 - Chamber Orchestra 0 - 1 Hour(s) **or**
- MUS 195 - Guitar Ensemble 0 - 1 Hour(s)

Choice of 2 of the Following:

(8 credits total)

- MUS 111 - Music Theory I 3 Hour(s)
and
- MUS 113 - Musicianship I 1 Hour(s)

- MUS 112 - Music Theory II 3 Hour(s)
and
- MUS 114 - Musicianship II 1 Hour(s)

- MUS 311 - Music History I - Classical Antiquity to the Classical Period 4 Hour(s)
- MUS 312 - Music History II - Nineteenth Century to the Present 4 Hour(s)

Photography Minor

Requirements

- ART 209 - Photography I 4 Hour(s)
- ART 215 - History of Photography 4 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)

Two of the Following Courses:

- ART 309 - Photography II - Fine Art 4 Hour(s)
- ART 310 - Photography II - Commercial 4 Hour(s)
- ART 314 - Photography II Studio Lighting 4 Hour(s)

Theatre Arts Minor

The Theatre Arts minor is intended for students who are interested in participating in theatre production, both onstage and off.

Core Courses

- THE 100 - Theatre Participation 1 Hour(s)
and/or
- THE 300 - Theatre Practicum 1 Hour(s)

- THE 101 - Introduction to Theatre Arts 4 Hour(s) **or**
- THE 102 - Introduction to Performance 4 Hour(s)

- THE 120 - Costume Construction & Makeup 2 Hour(s) **or**
- THE 121 - Set Construction & Lighting 2 Hour(s)

- THE 215 - Theatre History and Literature I 4 Hour(s) **or**
- THE 216 - Theatre History and Literature II 4 Hour(s)

- THE 307 - Directing for the Stage 4 Hour(s) **or**
- THE 308 - Writing for the Stage 4 Hour(s)

Note:

To fulfill the minor requirements, students must take a total of 2 credits in THE 100 and/or THE 300.

In Addition

Theatre minor students are required to take 4 credits from the following advanced theatre courses:

- THE 200 - Theatre Workshops 1 - 2 Hour(s)
- THE 260 - Arts Management 4 Hour(s)
- THE 301 - Contemporary Acting Styles 4 Hour(s)
- THE 302 - Period Acting Styles 4 Hour(s)
- THE 307 - Directing for the Stage 4 Hour(s)
- THE 308 - Writing for the Stage 4 Hour(s)

- THE 291 - Special Studies/Topics in Theatre 1 - 4 Hour(s) **or**
- THE 391 - Special Studies/Topics in Theatre 1 - 4 Hour(s)

- THE 380 - Internship in Theatre Arts 1 - 4 Hour(s) **or**

- THE 480 - Internship in Theatre Arts 1 - 4 Hour(s)
- THE 390 - Theatre Projects 1 - 4 Hour(s) **or**
- THE 490 - Theatre Projects 2 Hour(s)

Web Design Minor

Requirements (16 Credits)

- GRC 106 - Intro-Communication Technology 2 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 200 - Color and Typography 4 Hour(s)
- GRC 320 - Intro to Multimedia Production 4 Hour(s)

College of Health Sciences

Thomas Pahnke, Dean

Department of Health and Medicine

Monika Baldrige, Chair

- Majors: Health Sciences, Health Sciences-Diagnostic Medical Sonography, Health Sciences-Radiologic Technology, Neurodiagnostic Technology, Public Health.
- Minors: Health and Human Experience,
- Articulation Programs: 3+4 Doctor of Podiatry Program, 3+4 Doctor of Pharmacy Program.
- Graduate degree: Master of Science in Physician Assistant Studies, Master of Occupational Therapy

Department of Human Movement Sciences

David MacIntyre, Chair

- Majors: Exercise Science, Physical and Health Education, and Sports Administration.
- Minor: Coaching
- Graduate degrees: Master of Science in Athletic Training,
- Master of Science degrees: Clinical Exercise Physiology, Sport Physiology & Performance Coaching

Department of Nursing

Teresa Kaul, Chair

- Major: Nursing
- Graduate degree: Master of Science in Nursing

Department of Physical Therapy

Sara Deprey, Director

- Graduate degree: Doctorate of Physical Therapy

Department of Health and Medicine

Chairperson: Monika Baldrige

Room Center for Graduate Studies 102

Telephone: 262-524-7627

E-mail: mbaldrig@carrollu.edu

Anatomy and Physiology

Monika G. Baldrige Professor

Lorine E. Brock Lecturer

Susan M. Hanson Distinguished Lecturer

Natalya S. Zinkevich Assistant Professor

The Anatomy and Physiology courses serve several disciplines including athletic training, biology, exercise science, nursing, physical and health education, pre-physical therapy, public health, and sports administration. The curriculum is designed to provide students an introductory and/or advanced knowledge of anatomy and physiology. The courses provide a foundation for those who wish to pursue graduate studies or professional health careers.

Learning Outcomes

Students will:

1. Demonstrate a basic knowledge of the human body that can be applied in future coursework and clinical practice
2. Demonstrate effective communication skills
3. Apply critical thinking and problem solving skills to clinical scenarios
4. Demonstrate professional behaviors required by health professionals

Anatomy and Physiology Courses

Bachelor of Science

Health Sciences Major - Completion

Lucinda Glaser Health and Medical Sciences Articulation and
Post Baccalaureate Programs Advisor

Carroll University offers an opportunity to earn a Bachelor of Science degree in Health Sciences through a unique articulated partnership with Waukesha County Technical College (WCTC).

This major provides depth and breadth within the basic and behavioral sciences to prepare students for the balanced integration of critical thinking, basic science knowledge application, and interpersonal skills necessary to provide the best care in a variety of health science disciplines. To meet the educational missions of the university and of the health science major, students study in a variety of academic and professional disciplines including anatomy and physiology, psychology, chemistry, physics and computational thinking.

Students with a completed associate of applied science degree from WCTC in Dental Hygiene or Surgical Technology are eligible to apply these credits for advanced standing toward a bachelor degree at Carroll. This B.S. degree provides an avenue for professional growth and advancement within each profession.

The remaining required courses will vary based on each individual's unique transcript, but will include the major core courses, Bachelor of Science requirements and elective credits. In order to graduate, students must earn a minimum of 128 credits, with the last 32 credits completed while enrolled at Carroll. One quarter of the major core courses must also be completed at Carroll.

Because students are transferring credits earned through an associate degree, **the health science completion major is not to be used as a stand-alone major.** Additional health related associate degrees from other technical colleges may also be considered for advanced standing. Please contact the Admissions Office for more information.

Major Core Courses (36 Credits)

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 221 - Life-Span Psychology 4 Hour(s)
- PSY 260 - Health Psychology 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Health Sciences Major - Diagnostic Medical Sonography Emphasis

Lucinda Glaser Health and Medical Sciences Articulation and Post Baccalaureate Programs Advisor Carroll University

Laura Sorenson Education Coordinator, School of Diagnostic Medical Sonography, Advocate Aurora Health

Michelle Cordio Program Director, School of Diagnostic Medical Sonography, University of Wisconsin Hospital and Clinics

Carroll University offers an opportunity to earn a Bachelor of Science degree in Health Sciences with an emphasis in Diagnostic Medical Sonography (DMS) through unique partnerships with Advocate Aurora Health in Milwaukee and the University of Wisconsin Hospital and Clinics (UWHC) in Madison. This B.S. degree affords students additional career choices over earning the certificate alone. Students receive the benefits of close, personal attention during their first years at Carroll followed by two years of clinical experiences in each hospital partner's School of Diagnostic Medical Sonography and associated clinical sites. Once admitted to the hospital phase of the program, students complete coursework in a specialized track (general/vascular or cardiac/vascular) and rotate through diverse clinical placements in a small cohort of classmates.

Diagnostic medical sonographers enjoy employment in varied settings, including hospitals, medical and diagnostic laboratories, diagnostic imaging centers and outpatient care centers. Additional opportunities are available in education, management and medical equipment sales related to sonography. Long-term employment prospects in this area are forecast to be excellent.

The DMS partnership program provides the approved education needed for students to be eligible to sit for their required national exam. Passing the exam is required in order to practice. While many students complete their registry exams while in the program, they must seek licensure (if required) individually. Currently, New Hampshire, New Mexico, North Dakota, and Oregon (NOT WI) are the only states with approved legislation mandating the licensure of sonographers.

For more information on DMS licensure: <https://www.ardms.org/discover-ardms/about-ardms/legislation/>

ARDMS certification: <https://www.ardms.org/discover-ardms/examinations-and-credentials/>

Entry into each hospital's professional phase is highly competitive. Acceptance of students into the professional phase of the program is determined solely by the admissions committee at each hospital's independent School of Diagnostic Medical Sonography. **Meeting the minimum requirements does not guarantee acceptance into the hospital phase and there are typically more applicants than seats available in the program.** It is strongly recommended that students enrolled in this program have a parallel plan in the event clinical phase admission is not attained. This program requires students to attend class year-round. Courses completed in summer or winter terms will incur additional tuition fees. See the Admissions section of the catalog or contact the Health and Medical Sciences Advisor for more details.

Accepted students transitioning into the clinical phase of the program must adhere to all policies and maintain all progression standards outlined and provided by their cooperating hospital partner. See the College of Health Science Progression Standards section of the catalog for more details. Students in the partnership program for Diagnostic Medical Sonography must adhere to the policies and requirements outlined by both Carroll University and their hospital program.

Required Carroll University Courses

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)

- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
 - CHE 101 - General Chemistry 4 Hour(s)
 - CHE 101L - General Chemistry Laboratory 0 Hour(s)
 - CHE 102 - Biological Chemistry 4 Hour(s)
 - CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
 - CMP 112 - Computational Thinking I 4 Hour(s)
 - CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
 - COM 207 - Intercultural Communication 4 Hour(s)
 - ENG 170 - Writing Seminar 4 Hour(s)
 - NRS 230 - Health Assessment 4 Hour(s)
 - NRS 230L - Health Assessment Laboratory 0 Hour(s)
 - NRS 236 - Human Pathophysiologic Responses 4 Hour(s)
-
- PHI 194 - Bioethics 4 Hour(s) **or**
 - REL 220 - Health and Religion 4 Hour(s)
-
- PHY 101 - Introductory Physics I 4 Hour(s)
 - PHY 101L - Introductory Physics Laboratory 0 Hour(s)
 - PSY 101 - Introductory Psychology 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 or PBH 114 in place of CMP 114. BUS 114 or PBH 114 can satisfy the CMP 114 requirement for the major and CMP 112 and CMP 114 or BUS 114 or PBH 114 will satisfy the Bachelor of Science requirement.

Required Support Courses

- PSY 221 - Life-Span Psychology 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
 - CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
 - MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
 - CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
-
- ENG 170 - Writing Seminar 4 Hour(s)
 - Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Health Sciences Major - Radiologic Technology Emphasis

Breanne Rosenbaum Program Supervisor
Advocate Aurora Health School of Radiologic Technology

Lucinda Glaser Health and Medical Sciences Articulation and
Post Baccalaureate Programs Advisor

Kyle Thine Program Director
Froedtert School of Radiologic Technology

Diane Wingenter Program Director
Ascension-St. Joseph School of Radiologic Technology

Carroll University offers an opportunity to earn a Bachelor of Science degree in Health Sciences with an emphasis in Radiologic Technology through unique partnerships with Ascension-St. Joseph, Advocate Aurora Health, and Froedtert Hospital. This B.S. degree affords students additional career choices over earning the certificate alone. Students receive the benefits of close, personal attention during their first years at Carroll followed by two years of clinical experiences in each hospital partner's School of Radiologic Technology and associated clinical sites.

Radiologic technologists enjoy employment in varied settings, including hospitals, medical and diagnostic laboratories, diagnostic imaging centers and outpatient care centers. Additional opportunities are available in education, management and medical equipment sales related to radiology. Long-term employment prospects in this area are forecast to be favorable.

The Rad Tech partnership program provides the approved education needed for students to be eligible to sit for their required national exam. Passing the exam is required in order to practice. While many students complete their registry exams while in the program, they must seek licensure (if required) individually. Wisconsin currently requires that any person who performs radiography or operates an X-Ray Machine or X-Ray Equipment, and is not exempt from the law, shall obtain a license or permit to perform radiography or limited scope radiographic procedures. <https://dsps.wi.gov/Pages/Professions/RadiographerLicensed/Default.aspx>

For more information on RT licensure: <https://www.arrt.org/about-the-profession/state-licensing>

Entry into the professional phase is highly competitive. Acceptance into the professional phase of the program is determined solely by the admissions committee at each hospital partners' independent School of Radiologic Technology. **Meeting the minimum requirements does not guarantee acceptance into the hospital phase and there are typically more applicants than seats available in the program. It is strongly recommended that students enrolled in this program have a parallel plan in the event clinical phase admission is not attained.** The program requires students to attend class year-round. Courses completed during the summer and winter terms will incur additional tuition fees. See the Admissions section of the catalog or contact the Health and Medical Sciences Advisor for more details.

Accepted students transitioning into the clinical phase of the program must adhere to all policies and maintain all progression standards outlined and provided by their cooperating hospital partner. See the College of Health Science Progression Standards section of the catalog for more details. Students in the partnership program for Radiologic Technology must adhere to the policies and requirements outlined by both Carroll University and their hospital program.

Required Carroll University Courses

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)

- CHE 101 - General Chemistry 4 Hour(s)
 - CHE 101L - General Chemistry Laboratory 0 Hour(s)
 - CHE 102 - Biological Chemistry 4 Hour(s)
 - CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
 - CMP 112 - Computational Thinking I 4 Hour(s)
 - CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
 - COM 207 - Intercultural Communication 4 Hour(s)
 - ENG 170 - Writing Seminar 4 Hour(s)
-
- PHI 194 - Bioethics 4 Hour(s) **or**
 - REL 220 - Health and Religion 4 Hour(s)
-
- PHY 101 - Introductory Physics I 4 Hour(s)
 - PHY 101L - Introductory Physics Laboratory 0 Hour(s)
 - PSY 101 - Introductory Psychology 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 or PBH 114 in place of CMP 114. BUS 114 or PBH 114 can satisfy the CMP 114 requirement for the major and CMP 112 and CMP 114 or BUS 114 or PBH 114 will satisfy the Bachelor of Science requirement.

Required Support Courses

- PSY 221 - Life-Span Psychology 4 Hour(s)
- PSY 260 - Health Psychology 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
 - CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
 - MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
 - CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**
-
- ENG 170 - Writing Seminar 4 Hour(s)
 - Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Neurodiagnostic Technology

Neurodiagnostic Technology

Lucinda Glaser Health and Medical Sciences Articulation and Post Baccalaureate Programs Advisor Carroll University

Tabitha Althoff Program Director - Neurodiagnostic Technology Program, Advocate Aurora Health

Carroll University offers an opportunity to earn a Bachelor of Science degree in Neurodiagnostic Technology (NDT) through a unique partnership with Advocate Aurora Health in Milwaukee. The partnership program will lead to a Carroll Bachelor of Science degree in Neurodiagnostic Technology and prepare the student to sit for national certification through the American Board of Registration of Electroencephalographic and Evoked Potential Technologists (ABRET). Graduates of the program will be prepared to sit for certification examination and credentialing in electroencephalogram (EEG), intraoperative neuromonitoring (IONM) and evoked potential (EP) studies. Students complete their first two years of the program at Carroll fulfilling NDT support courses and the Pioneer Core followed by two years of courses and clinical experiences at Aurora St. Luke's Medical Center with a small cohort of classmates. Advocate Aurora Health in partnership with Carroll University is currently seeking Commission on Accreditation of Allied Health Education Programs (CAAHEP) accreditation for the BS in Neurodiagnostic Technology (NDT) program.

Neurodiagnostic technology professionals prepare patients for procedures, obtain medical histories, record electrical potentials, calculate results, maintain equipment, and work with specific treatment interventions. They develop rapport with patients during the recording procedure, which can last from 20 minutes for a single nerve conduction study, to 8 hours for a sleep study, to multiple-day admission for long-term monitoring. Neurodiagnostic technology professionals understand neurophysiology and recognize normal and abnormal electrical activity. They act as eyes and ears for specially trained physicians who later review and interpret the data. Considerable individual initiative, reasoning skill, and sound judgment are required for electroneurodiagnostic professionals. The most common neurodiagnostic procedures are the electroencephalogram, long-term monitoring, intraoperative neuromonitoring, the polysomnogram, evoked potential studies, and nerve conduction studies. Long-term employment prospects in this area are forecast to be excellent.

The NDT partnership program provides the approved education needed for students to be eligible to sit for their required national exam. Passing the exam is required in order to practice. Professionals must pass ABRET board exams which are recognized worldwide. There are no state licensure requirements at this time for NDT. <https://www.abret.org/candidates/credentials/eeg/>

Entry into the hospitals' professional phase is competitive. Acceptance of students into the professional phase of the program is determined solely by the admissions committee at the hospital. **Meeting the minimum requirements does not guarantee acceptance into the hospital phase and there are typically more applicants than seats available in the program.** It is strongly recommended that students enrolled in this program have a parallel plan in the event clinical phase admission is not attained. See the Admissions section of the catalog or contact the Health and Medical Sciences Advisor for more details.

Accepted students transitioning into the clinical phase of the program must adhere to all policies and maintain all progression standards outlined and provided by their cooperating hospital partner. See the Progression Standards section of the catalog for more details. Students in the partnership program for Neurodiagnostic Technology must adhere to the policies and requirements outlined by both Carroll University and their hospital program.

Required Carroll University Courses

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

- COM 207 - Intercultural Communication 4 Hour(s)
- NDT 275 - Neuroanatomy and Physiology 4 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)

Bachelor of Science

The requirements for a Bachelor of Science degree are:

CMP 112 and CMP 114

OR

MAT 140 or higher and CSC 110 or higher;

ENG 170

Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required support courses" within each major.

Public Health Major

Laila Azam Clinical Assistant

Barbra J. Beck Professor

Pamela Pinahs-Schultz Associate Professor

Professor

The mission of public health is to fulfill society's interest in assuring conditions in which people can be healthy. Public health carries out its mission through organized, interdisciplinary efforts that address the physical, mental, and environmental health concerns of communities and populations at risk for disease and injury. Its mission is achieved through the application of health promotion and disease prevention technologies and interventions designed to improve and enhance quality of life. The core areas of public health include health services administration, biostatistics, epidemiology, behavioral sciences/health education and environmental health sciences.

Students in the Public Health major will also become eligible to sit for the Certified Health Education Specialist exam offered by the National Commission for Health Education Credentialing (NCHEC). NCHEC's voluntary professional certification program establishes a national standard for individual health education practitioners. Health educators are professionals who design, conduct and evaluate activities that help improve the health of all people. These activities can take place in a variety of settings that include schools, communities, health care facilities, businesses, colleges and government agencies. Certified Health Education Specialists (CHES) are those who have met the standards of competence established by NCHEC and have successfully

passed the CHES examination. The CHES designation after a health educator's name is an indication of professional competency and commitment to continued professional development.

Learning Outcomes for the Public Health Program

Public health students will be:

1. Exposed to the science of human health and disease including opportunities for promoting and protecting health across the life course; and able to
2. Articulate the historical and physiological foundations of public health as well as its core values, concepts and functions across the globe and society;
3. Use the basic concepts, methods, and tools of public health data collection in order to apply evidence-based approaches to public health problems;
4. Identify the major health related needs and concerns of the population and address these through the planning, implementation, and evaluation of interventions;
5. Identify soci-economic, behavioral, environmental, and other factors that impact human health and contribute to health disparities;
6. Identify the fundamental characteristic and organizational structures of the U.S. health system as well as differences in the systems of other countries;
7. Address the basic legal, ethical, economic, and regulatory dimensions of public health and the policies, roles and responsibilities of different agencies and branches of government; and
8. Demonstrate public health-specific communication, including technical and professional writing, the use of mass media, and electronic technology.

These learning outcomes are delivered through a focused curriculum in disease prevention, quantitative skills, health service organization and delivery, and community dimensions of practice.

Suggested Minors

1. Health Education
2. Health Care Administration

Admission and Progression Standards

Students will be subject to Carroll University admission and progression standards.

Caregiver Background and Criminal History Check

The student must complete a Background Information Disclosure Form prior to community placements. Certain convictions may prevent or significantly limit the ability of the university to place a student in the field experience and internship courses resulting in the student being unable to meet the university's graduation requirements.

Core Courses (34-40 Credits)

- ANP 100 - Overview of Human Anatomy and Physiology 4 Hour(s)
- ANP 100L - Overview of Human Anatomy and Physiology Laboratory 0 Hour(s)
- HED 206 - Taking Charge of Your Health and Wellbeing 2 Hour(s)
- HED 207 - Gerontology for Healthcare 2 Hour(s)
- PBH 101 - Introduction to Public Health 4 Hour(s)
- PBH 102 - Global Health 4 Hour(s)
- PBH 114 - Biostatistics for Health Sciences 4 Hour(s)
- PBH 210 - Public Health for Communities 4 Hour(s)
- PBH 211 - Public Health Field Experience 2 Hour(s)
- PBH 302 - Environmental Health 2 Hour(s)
- PBH 303 - Occupational Health and Safety 2 Hour(s)
- PBH 312 - Public Health Policy and Administration 4 Hour(s)
- PBH 320 - Principles of Health Behavior 4 Hour(s)
- PBH 324 - Program Development, Assessment, and Evaluation in Public Health 4 Hour(s)
- PBH 421 - Epidemiology 4 Hour(s)
- PBH 480 - Public Health Internship 6 - 12 Hour(s)

Required Supporting Courses

- COM 290 - Intro to Health Communication 4 Hour(s)
- GRC 106 - Intro-Communication Technology 2 Hour(s)

- HED 101 - Intro to Health Care Skills 1 Hour(s) **or**
- Equivalent CPR

Choose 4 credits from the following:

- HED 201 - Nutrition 2 Hour(s)
- HED 204 - Human Sexuality 2 Hour(s)
- HED 205 - Community Mental Health 2 Hour(s)
- HED 206 - Taking Charge of Your Health and Wellbeing 2 Hour(s)
- HED 207 - Gerontology for Healthcare 2 Hour(s)

Pre-Physical Therapy 4 Year Plan

Courses Required to Complete a 4 Year Pre-Physical Therapy Program

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- ANP 402 - Human Anatomy 4 Hour(s)
- ANP 402L - Human Anatomy Laboratory 0 Hour(s)
- ANP 403 - Human Physiology 4 Hour(s)

- ANP 403L - Human Physiology Laboratory 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)

Public Health Bachelor of Science Requirement

The requirement for the Public Health Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
and either
- CMP 113 - Computational Thinking II 4 Hour(s) **or**
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- PBH 114 - Biostatistics for Health Sciences 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
and
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived

Minor

Health and Human Experience Minor

Mission and Program Goals

Mission: The mission of the Health and Human Experience minor is to educate, in an interdisciplinary approach, pre-professional students interested in pursuing graduate study or employment in a healthcare discipline. The American Medical Society has embraced the need for practitioners that are well versed in the many "ways of knowing." This change in philosophy is due to the recognition that there is a growing need for healthcare professionals to work as an interdisciplinary team and to respond to patients more holistically through addressing their social and mental health as well as their physical health. To address this need, this minor has been designed to educate students in interdisciplinary, humanistic, and cultural approaches to the study of health in modern society.

Goals: To educate pre-professional students in an interdisciplinary, humanistic, and cultural approach to the study of health in modern society

Program Learning Outcomes (Student Learning Outcomes)

Health and the Human Experience minor students will be able to study/analyze/make decisions about health and medicine through;

1. Demonstrating a basic knowledge of the human body (at the molecular, biochemical, and organismal levels) that can be applied during subsequent didactic work, as well as in future clinical screening for, evaluation of, decision making regarding, and treatment of disease processes
2. Articulating evidence-based implications at the interpersonal and/or sociological levels.
3. Analyzing multiple ethical, philosophical, and religious positions for use as critical tools for making health decisions.
4. Exhibiting the ability to use literary and/or historical artifacts to examine issues in the health and human experience.

Coursework (25 Credits)

Students must take 6 courses (24 credits) plus capstone (1 credit)

* Students must take at least one course, but no more than two courses, from each category. Students may not enroll in courses that meet requirements for their major (this includes required support courses). Students must take at least one ANP course from the Science category.

Humanities

- ENG 165 - Cultural Explorations of Race, Gender, and Class 4 Hour(s)
- PHI 207 - History and Philosophy of Science 4 Hour(s)
- ENG 199 - Reading and Writing in the Sciences 4 Hour(s)

Sciences

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- ANP 402 - Human Anatomy 4 Hour(s)
- ANP 402L - Human Anatomy Laboratory 0 Hour(s)
- ANP 403 - Human Physiology 4 Hour(s)
- ANP 403L - Human Physiology Laboratory 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)

Social Health

- COM 200 - Interpersonal Communication 4 Hour(s)
- COM 207 - Intercultural Communication 4 Hour(s)
- COM 290 - Intro to Health Communication 4 Hour(s)
- SOC 102 - Sociology of Social Problems 4 Hour(s)
- SOC 215 - Social Gerontology 4 Hour(s)

Values and Ethics

- PHI 106 - Ethics, Values and Judgment 4 Hour(s)
- PHI 194 - Bioethics 4 Hour(s)
- PHI 206 - Ethics 4 Hour(s)
- REL 210 - Suffering and Hope 4 Hour(s)
- REL 220 - Health and Religion 4 Hour(s)

Capstone

- HSC 499 - Health and Human Experience Capstone 1 Hour(s)

Health Education Minor

This minor provides a basic foundation for students desiring preparation in health promotion and disease prevention. The minor in health education may be used in combination with many majors to enhance a student's career opportunities and as preparation to deliver health promotion programs in a variety of settings. . Completion of the minor along with a teaching certifiable major leads to certification in health education.

Required Courses (19 Credits)

- HED 101 - Intro to Health Care Skills 1 Hour(s)
- HED 201 - Nutrition 2 Hour(s)
- HED 202 - Drugs, Society and Human Behavior 2 Hour(s)
- HED 204 - Human Sexuality 2 Hour(s)
- HED 205 - Community Mental Health 2 Hour(s)
- HED 323 - School Health Programs 2 Hour(s)
- HED 353 - Special Methods in Teaching Health Education 4 Hour(s)

Public Health Minor

Core Courses

The Public Health minor will utilize core public health courses while potentially fulfilling some General Education requirements. This minor helps the undergraduate gain an understanding of important local, national, and global public health issues giving additional diversity to their current course of study.

- HED 206 - Taking Charge of Your Health and Wellbeing 2 Hour(s)

- PBH 101 - Introduction to Public Health 4 Hour(s)
- PBH 102 - Global Health 4 Hour(s)
- PBH 210 - Public Health for Communities 4 Hour(s)
- PBH 324 - Program Development, Assessment, and Evaluation in Public Health 4 Hour(s)
- PBH 421 - Epidemiology 4 Hour(s)

Pre-Professional

Pre-Athletic Training Direct-Admit

Curriculum

The entry-level Master of Athletic Training Program is a two-year, five semester program. It is divided into MSAT Year I and MSAT Year II.

During MSAT Year I, course work in athletic training begins at the 5000 level. The 5000-level courses present the basic, behavioral, professional and applied science foundations for the 6000-level courses in MSAT Year II. For students that enter the program with direct admission status bachelor's degrees are awarded to those individuals satisfying all relevant Carroll undergraduate requirements at the conclusion of the senior year/MSAT Year I.

At the conclusion of MSAT Year I, students move into the MSAT Year II, where 6000-level (summer, fall and spring terms of year five) courses in athletic training are offered. Knowledge gained in each course is integrated throughout subsequent courses. Athletic Training Program graduates participate in the University's Commencement ceremony in May.

Year 1

Fall Semester 16 Credits

- ATH 5402 - Athletic Training Seminar I 3 Hour(s)
- ATH 5402L - Athletic Training Seminar I Laboratory 0 Hour(s)
- ATH 5450 - Assessment and Evaluation I 2 Hour(s)
- ATH 5450L - Assessment and Evaluation I Laboratory 0 Hour(s)
- ATH 5460 - Athletic Training Practicum I 1 Hour(s)
- PTH 5401 - Statistical and Research Methods 3 Hour(s)
- PTH 5404 - Biomechanics 2 Hour(s)
- PTH 5404L - Biomechanics Laboratory 0 Hour(s)
- PTH 5406 - Exercise Physiology 2 Hour(s)
- PTH 5406L - Exercise Physiology Laboratory 0 Hour(s)
- PTH 5413 - Clinical Anatomy 3 Hour(s)

Spring Semester 16 Credits

- ATH 5455 - Assessment and Evaluation II 4 Hour(s)
- ATH 5455L - Assessment and Evaluation II Laboratory 0 Hour(s)
- ATH 5461 - Athletic Training Practicum II 2 Hour(s)
- PTH 5412 - Tests & Measures 3 Hour(s)
- PTH 5412L - Tests & Measures Laboratory 0 Hour(s)

- PTH 5414 - Advanced Kinesiology 3 Hour(s)
- PTH 5414L - Advanced Kinesiology Laboratory 0 Hour(s)
- PTH 5416 - Therapeutic Exercise 4 Hour(s)
- PTH 5416L - Therapeutic Exercise Laboratory 0 Hour(s)

Summary of Credits

- Pre-Professional Phase 96 credits
- Professional Year 1 32 credits

Pre-Athletic Training Emphasis with undergraduate major 128 credits.

See the Carroll University Graduate Catalog for descriptions of Master of Athletic Training (ATH) courses in Year 2 of the Entry-level Athletic Training Program.

Pre-Professional Programs

Students planning to pursue a graduate or professional program in a specific career track after earning a Carroll Bachelor degree have the opportunity to participate in pre-professional programming. Pre-programs are NOT majors; they are a declaration of intent to pursue professional school as well as directional paths of study and experience to prepare undergraduates for a specific industry or career.

*While pre-health students are free to select the undergraduate major that best suits them, they must complete the courses associated with the track in order to earn the emphasis at Carroll University. These courses will satisfy some prerequisite requirements for admission to most professional/graduate schools in that area. As these requirements vary by school, it is the student's responsibility to be aware of specific program requirements and to consult with a pre-health advisor for guidance.

Additional prerequisite course requirements may exist.

Specific advising and support in preparation to professional program application is available to students declaring a pre-professional track in one of the following areas:

Pre-Professional Programs

- Pre-Anesthesiologist Assistant
- Pre-Athletic Training
- Pre-Dentistry
- Pre-Exercise Physiology
- Pre-Medicine
- Pre-Occupational Therapy
- Pre-Pharmacy (General)
- Pre-Pharmacy (Medical College of Wisconsin, 3+3 Dual Degree Program)
- Pre-Pharmacy (Rosalind Franklin University, 3+4 Dual Degree Program)
- Pre-Physical Therapy
- Pre-Physician Assistant
- Pre-Podiatry
- Pre-Veterinary

Department of Human Movement Sciences

Chairperson: David MacIntyre

Room PT Building, room 112B

Telephone: 262-524-7667

Fax: 262-524-7690

E-mail: macintyr@carrollu.edu

Name	Faculty Title	Area
Jessica Brown	Assistant Professor of Exercise Science	Exercise Science, Exercise Physiology
Stephen Dannhoff	Director of Physical and Health Education, Senior Lecturer of Physical Education	Physical and Health Education, Sports Administration
Brian Edlbeck	Clinical Assistant Professor of Exercise Science	Exercise Science, Sport Physiology and Performance Coaching
Elaine Gonya	Lecturer of Exercise Science	Exercise Science
Jamie Krzykowski	Director of MS in Athletic Training, Clinical Associate Professor of Athletic Training	Athletic Training
David MacIntyre	Chair of the Department and Clinical Associate Professor of Exercise Science	Exercise Science
Jason Roe	Senior Lecturer in Exercise Science	Exercise Science
Lacey Runyon	Clinical Assistant Professor of Athletic Training	Athletic Training
Daniel Shackelford	Assistant Professor of Exercise Science Director of MS in Exercise Physiology	Exercise Science, Exercise Physiology
Timothy Suchomel	Assistant Professor of Exercise Science Director of MS in Sport Physiology and Performance Coaching	Exercise Science, Sport Physiology and Performance Coaching

Bachelor of Science

Exercise Science Major

Exercise Science

Jessica M. Brown Assistant Professor

Brian P. Edlbeck Clinical Assistant Professor

Elaine Gonya Lecturer

**David B. MacIntyre Chair of Department of Human Movement Sciences
Clinical Associate Professor**

Jason T. Roe Senior Lecturer

Daniel Shackelford Assistant Professor, Director of Master of Science in Exercise Physiology

Timothy J. Suchomel Assistant Professor, Director of Master of Science in Sport Physiology and Performance Coaching

The mission of the Exercise Science Program at Carroll University is to develop entry-level professionals who can perform a range of health/fitness assessments and prescribe evidence-based interventions across various populations and abilities. Students will possess strong critical thinking, communication, and interpersonal skills appropriate for multiple settings. The program will prepare students for professional certification exams (ACSM, NSCA) and postgraduate study in exercise science or other related disciplines.

The exercise science program emphasizes the area's body of knowledge, research, and practice. Constant reinforcement of content through practical experiences occurs through observations, exposure to clients in academic courses, practicum experiences, and full-time internships. Graduates are qualified professionals who are liberally educated and possess the foundations for lifelong learning.

Individuals interested in health/fitness management are prepared to provide exercise and general wellness programs to apparently healthy individuals across the life span in safe and effective environments. Those interested in strength and conditioning are prepared to provide training programs to improve athletic performance across the life span. Students are also well prepared for advanced study in either graduate school or a clinical health field.

Learning Outcomes for Exercise Science

Upon completion of the exercise science program, the student:

- 1) Will be prepared for entry-level employment, relevant professional certifications or advanced degrees in health-related graduate programs.
- 2) Will be able to appropriately screen prospective clients and select, implement, and interpret health and fitness assessments across various populations and abilities.
- 3) Will be able to appropriately select, design, implement, and modify individualized health and fitness interventions for clients across various populations and abilities.
- 4) Will be able to educate, instruct, and motivate individuals in lifestyle modification in diverse settings across various populations and abilities.
- 5) Will possess strong communication and interpersonal skills to interact and collaborate effectively with professionals and peers.
- 6) Will be able to access, read and interpret scientific research and utilize the scientific inquiry process to collect and analyze appropriate data, interpret results and present conclusions in suitable oral, written, and technological formats.

Fees

Specific courses that require use of equipment and disposable supplies are assigned a course fee.

Core Courses

- ESC 100 - Introduction to Exercise Science 2 Hour(s)
- ESC 280 - Exercise Physiology 4 Hour(s)
- ESC 280L - Exercise Physiology Lab 0 Hour(s)
- ESC 300 - Nutrition and Health 4 Hour(s)
- ESC 320 - Exercise Testing and Prescription 4 Hour(s)
- ESC 320L - Exercise Testing & Prescription Lab 0 Hour(s)
- ESC 322 - Kinesiology 4 Hour(s)
- ESC 322L - Kinesiology Lab 0 Hour(s)
- ESC 390 - Strength & Conditioning Theory Across the Lifespan 4 Hour(s)
- ESC 390L - Strength and Conditioning Theory Across the Lifespan Lab 0 Hour(s)
- ESC 420 - Exercise Prescription for Special Populations 4 Hour(s)

Required Support Courses

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

Tracks

- Exercise Science Major - Undergraduate Exercise Science (UG-ESC) Option
- Exercise Science Major - Exercise Science-Master of Science in Exercise Physiology (ESC-MS EXP) Option
- Exercise Science Major - Exercise Science-Doctor of Physical Therapy (ESC-DPT) Option

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
AND
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
OR
- MAT 140 - Calculus and Its Applications 4 Hour(s)
AND
- CSC 110 - Problem Solving through Programming 4 Hour(s)
AND

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Physical and Health Education Major

Stephen J. Dannhoff Senior Lecturer, Director of Physical Education

Pamela Pinahs-Schultz Professor

The physical and health education major and adapted physical education licensure are designed for students who wish to acquire the diverse competencies needed to teach physical education, health education, and adapted physical education at the Pre-K-12 level. This program provides students with competencies necessary to meet Wisconsin Department of Public Instruction (DPI) requirements.

Physical and Health Education (K-12) Major

All physical education majors must be proficient to the intermediate level in swimming; a Water Safety Instructor and/or Lifeguarding certificate is strongly recommended.

Learning Outcomes for Physical and Health Education

Upon graduation and entry into the profession of Physical and Health Education, the individual will:

1. Articulate basic physical education knowledge, central physical education concepts, and pedagogical practices within the field of physical education. Articulate basic health knowledge, central health concepts, health tools of inquiry, and pedagogical practices within the field of health education.
2. Develop a professional philosophy consistent with current National Association for Sport and Physical Education (NASPE) and state physical education standards, developmentally appropriate curriculum and instructional design, assessment, and professional development. Develop a professional philosophy consistent with current research findings and best practices in health education, curriculum and instructional design, assessment and professional development.
3. Identify the role, function, and responsibility of a physical education teacher and physical education program coordinator as part of the K-12 physical education program. Identify the role, function, and responsibility of a health education teacher and health education program coordinator as part of the comprehensive school health program.
4. Assess informally student physical education and health education needs based on a student's prior physical education experiences, physical fitness level, interests and needs in order to implement quality physical education instruction. Assess informally student health needs based on a student's prior knowledge, interests and needs in order to implement quality health instruction.
5. Identify and articulate the concepts and skills contained in the current state and NASPE physical education standards in the development of curriculum and instruction. Identify and articulate current state and national health standards in the development of curriculum and instruction. Identify and articulate the concepts and skills contained in the current state and national health standards in the development of curriculum and instruction.

6. Design and deliver developmentally appropriate instructional programs based on stated goals and objectives contained in the current state and NASPE standards. Design and deliver developmentally appropriate instructional programs based on stated goals and objectives contained in the current state and national health standards, assessment data, utilizing the CDC guidelines for effective school health programs as the major health content organizer.
7. Analyze and articulate the social, cultural, economic and political factors that affect physical education engagement, home-school relations, and classroom strategies in physical and health education.
8. Evaluate commercial physical education programs as well as state, national, and international resources utilizing research-based principles in physical education curriculum, instruction and assessment. Critically evaluate developmentally appropriate commercial health education programs as well as state, national, and international resources utilizing research-based and best practices principles in health education curriculum, instruction, and assessment.
9. Implement effective developmentally appropriate instructional approaches including the use of media and technology, multiple intelligences, differentiated instruction and brain-based learning that will create learning experiences that will meet the diverse needs of pupils, the community and curricular goals.
10. Apply formal and informal assessment strategies to evaluate and ensure continuous intellectual, social, and physical development of the pupil.
11. Reflect and evaluate the impact of their instructional capacity on others (e.g. learners, parents/guardians, and other professionals) as well as their classroom management skills and seek opportunities to grow professionally (i.e. Wisconsin Family and Consumer Educators, and Wisconsin Association for Health, Physical Education, Recreation, and Dance).

Fees

Specific courses that require use of equipment and disposable supplies are assigned a course fee.

Academic Progression Standards

The academic progression standards for the physical and health education major are presented in the Progression Standards section of this catalog.

Courses in the Physical and Health Education Major

- ATH 101 - Athletic Training Seminar I 2 Hour(s)
- ATH 101L - Athletic Training Seminar I Lab 0 Hour(s)
- ESC 280 - Exercise Physiology 4 Hour(s)
- ESC 280L - Exercise Physiology Lab 0 Hour(s)
- ESC 322 - Kinesiology 4 Hour(s)
- ESC 322L - Kinesiology Lab 0 Hour(s)
- HED 101 - Intro to Health Care Skills 1 Hour(s)
- HED 201 - Nutrition 2 Hour(s)
- HED 202 - Drugs, Society and Human Behavior 2 Hour(s)
- HED 204 - Human Sexuality 2 Hour(s)
- HED 205 - Community Mental Health 2 Hour(s)
- HED 323 - School Health Programs 2 Hour(s)
- HED 353 - Special Methods in Teaching Health Education 4 Hour(s)
- PED 103 - Philosophy, Principles & History of Physical Education/Athletics 3 Hour(s)
- PED 110 - Basic Weight Training Instruction 1 Hour(s)
- PED 110L - Basic Weight Training Instruction Laboratory 0 Hour(s)

- PED 120 - Fundamental Motor Development 2 Hour(s)
- PED 208 - Organization and Administration of Physical Activities/Athletics 2 Hour(s)
- PED 214 - Teaching Outdoor Activities in Physical Education 2 Hour(s)
- PED 310 - Elementary Physical Education Activities 3 Hour(s)
- PED 311 - Team Sports and Officiating 3 Hour(s)
- PED 311L - Team Sports and Officiating Laboratory 0 Hour(s)
- PED 312 - Individual/Dual and Lifetime Activities 3 Hour(s)
- PED 312L - Individual/Dual and Lifetime Activities Laboratory 0 Hour(s)
- PED 353 - Capstone: Special Methods in Teaching Physical Education 4 Hour(s)
- PED 411 - Adapted Physical Education and Sport 4 Hour(s)
- PED 421 - Psycho-Social Aspects of Physical Activity 4 Hour(s)

Courses toward the Adapted Physical Education License

- EDU 364 - Collaboration for Academic, Social and Career Development 4 Hour(s)
- PED 120 - Fundamental Motor Development 2 Hour(s)
- PED 411 - Adapted Physical Education and Sport 4 Hour(s)
- PED 412 - Assessment/Program Evaluation in Adapted Physical Education 2 Hour(s)
- PED 414 - Field Experience in Adapted P.E. 1 Hour(s)

Required Support Courses

- ANP 100 - Overview of Human Anatomy and Physiology 4 Hour(s)
- ANP 100L - Overview of Human Anatomy and Physiology Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

Coaching Emphasis

Physical and Health Education Major - Coaching Emphasis

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Sports Administration Major

Stephen Dannhoff Senior Lecturer

The curriculum in sports administration is designed to prepare students for careers of leadership in the field of sports administration. During the course of study, sports administration students gain expertise for multi-faceted sports careers in the fields of facilities management, information technology, and front office administration. The program provides students the opportunity to garner knowledge and develop skills through coursework and mentorship experience within the sport industry.

Bachelor of Science

The Carroll University Sports Administration major will provide students with a knowledge, understanding, and appreciation of the sport industry that will provide career advancement opportunities. The tools and resources provided to the students will occur in a positive learning environment combining both theory and practice. In pursuit of our mission we will: Prepare students to critically analyze issues and problems related to the sports administration field; Ensure students are proficient in the outcome areas of personal and professional decision making, ethical and legal practices, practical and theoretical competence, and professional development; and Require students to acquire significant contact hours in an internship setting to enhance authentic learning.

Program Level Student Learning Outcomes

1. Display an understanding of the managerial considerations involved in sports administration practice within a variety of professional settings.
2. Display an understanding of how marketing principles may be effectively applied in a variety of sports administration settings, particularly as they pertain to ticket and sponsorship sales and customer service.
3. Display an understanding of how public relations tactics such as news releases and community relations may be effectively employed in a variety of sports administration settings,
4. Display an understanding of the financial dimensions of sports administration practice, including resource acquisition and budget considerations,
5. Display an understanding of the economic dimensions of sports administration practice, particularly as it relates to public finance of sport and economic impact evaluations,
6. Display an understanding of the ethical dimensions of sports administration practice and be able to make ethical decisions based on sound professional judgment,
7. Display an understanding of the legal dimensions of sports administration practice and be able to apply legal theory such as contract law and tort law in various sports administration settings,
8. Display an understanding of the key considerations involved in successful sports event and sports facility management,
9. Display sound critical thinking skills that can be employed in sports administration settings,
10. Display effective oral, written and interpersonal communication skills as required for successful sports administration practice,
11. Display proficiency in employing technologies commonly utilized by sports administrators,
12. Display proficiency in applying sports administration knowledge and related skills in an in-depth experiential learning assignment (i.e., internship).

Student Learning Goals

1. Secure an understanding of how relevant administrative, marketing, public relations, economic, and financial theory are applicable to the various facets of sports administration practice
2. Develop an understanding of and an appreciation for the psycho-social dimensions of sport and sports administration practice
3. Gain an understanding of the ethical and legal dimensions of successful sports administration practice
4. Develop critical thinking skills, particularly as they are relevant to successful sports administration practice
5. Advance oral, written and interpersonal communication skills as necessary for successful sports administration practice
6. Develop skills pertaining to the use of technology in sports administration
7. Acquire relevant professional experience in which knowledge secured in sports administration classes is successfully applied in a sports management setting

Internship Requirements

1. A minimum grade point average of 2.0 at the time of application for the internship.
2. A minimum of 480 hours of actual work-related experience, preferably for an entire semester.
3. The intern works under the guidance of experienced individuals/supervisors in the area of interest that has been pre-approved by the program.
4. Periodic and final written reports about the work experiences, by both the intern and his/her supervisors, are submitted to the program.

Fees

Specific courses that require use of equipment and disposable supplies are assigned a course fee.

Core Courses

- PED 103 - Philosophy, Principles & History of Physical Education/Athletics 3 Hour(s)
- PED 208 - Organization and Administration of Physical Activities/Athletics 2 Hour(s)
- PED 311 - Team Sports and Officiating 3 Hour(s)
- PED 311L - Team Sports and Officiating Laboratory 0 Hour(s)
- PED 312 - Individual/Dual and Lifetime Activities 3 Hour(s)
- PED 312L - Individual/Dual and Lifetime Activities Laboratory 0 Hour(s)
- PED 411 - Adapted Physical Education and Sport 4 Hour(s)
- PED 421 - Psycho-Social Aspects of Physical Activity 4 Hour(s)
- SPD 406 - Sports Marketing and Finance 4 Hour(s)
- SPD 408 - Sport Facilities and Event Management 4 Hour(s)
- SPD 410 - Athletic Administration 4 Hour(s)

Capstone Course

- SPAD 480 - Internship in Sports Administration 12 Hour(s)

Preferred Minors Available

Coaching Minor

Film and Television Minor

Graphic Design Minor

Liberal Arts Communication Minor

Management and Leadership Minor

Marketing Minor

Photography Minor

Web Design Minor

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Minor

Coaching Minor

The Coaching Minor emphasizes essential elements for future coaches. These key elements include:

- Human growth and developmental aspects of coaching
- Medical-legal aspects of coaching
- Social and psychological aspects of coaching
- Biomechanical aspects of coaching
- Strategies and technical aspects of coaching
- Professional preparation and practicum in coaching

Mission and Program Goals

The mission of the coaching minor is to respond to the critical need in today's society for quality coaches. The coaching minor is designed to professionally prepare the student to become an effective coach on and off the field of play. The coursework provides

students opportunities to learn and apply the principles and practices of coaching in any athletic or sport setting. The practicum allows the students to actively participate in a coaching experience under the guidance and supervision of a qualified coach.

Program Learning Outcomes

With a strong background in the science and physiology of movement, athletic training, care and prevention of athletic injuries and psychology of coaching, students will possess the knowledge, skills and experience required for services as an athletic coach.

1. Human growth and developmental aspects of coaching
The program will emphasize practices, issues and theories in human growth and development with special attention placed on training, conditioning and nutrition.
2. Medical-legal aspects of coaching
The program will emphasize practices, issues and theories in first aid, care, prevention and recovery from athletic injuries.
3. Social/Psychological aspects of coaching
The program will emphasize practices, issues, and theories involving behavioral aspects of an athlete's relationship with society. Special attention will be focused on the societal role of coaches and the influences they have with their athletes.
4. Biomechanical aspects of coaching
The program will emphasize practices, issues, and theories involving the scientific aspects of athletic performance including anatomy, kinesiology and physiology.
5. Strategies and technical aspects of coaching
The program will emphasize practices, issues, and theories involved in the organization and strategies of sport and the techniques of coaching basic skills of sport.
6. Professional preparation and practicum of coaching
The program will emphasize practices, issues, and theories regarding professional development in the coaching area and will culminate with a semester long practical field experience in their coaching area.

Student Learning Outcomes

1. Formulate a personal coaching philosophy and objectives.
2. Explain the different coaching styles.
3. Adhere to the code of ethics that guides coaches in the profession.
4. Demonstrate an understanding of the communication process involving the coach and players.
5. Plan a season practice and competition program involving an individual or team sport.
6. Demonstrate an understanding of technical and tactical skills in team sports.
7. Explain the nature of physical fitness and nutrition in relationship to enhanced performance.
8. Discuss the physiological, psychological and sociological values of sports participation.
9. Discuss the cultural aspects of sports including leisure purpose and recreation, classification of recreation, sports and education, co-recreation, sports and discrimination, and sportsmanship.
10. Discuss the risk management and legal aspects surrounding coaching.

Required Courses

- ATH 101 - Athletic Training Seminar I 2 Hour(s)
- ATH 101L - Athletic Training Seminar I Lab 0 Hour(s)
- HED 101 - Intro to Health Care Skills 1 Hour(s)
- PED 110 - Basic Weight Training Instruction 1 Hour(s)
- PED 110L - Basic Weight Training Instruction Laboratory 0 Hour(s)

- PED 120 - Fundamental Motor Development 2 Hour(s)
- PED 208 - Organization and Administration of Physical Activities/Athletics 2 Hour(s)
- PED 311 - Team Sports and Officiating 3 Hour(s)
and
- PED 311L - Team Sports and Officiating Laboratory 0 Hour(s) **or**
- PED 312 - Individual/Dual and Lifetime Activities 3 Hour(s)
and
- PED 312L - Individual/Dual and Lifetime Activities Laboratory 0 Hour(s)
- PED 320 - Coaching Theory 2 Hour(s)
- PED 321 - Coaching Practicum 4 Hour(s)
- PED 421 - Psycho-Social Aspects of Physical Activity 4 Hour(s)

Department of Nursing

Chairperson: Teresa Kaul, Chair

Professor(s):

Associate Professor(s):

Assistant Professor(s):

Instructors:

Room

Telephone: 262-650-4924

Fax: 262-574-2618

E-mail: tkaul@carrollu.edu

Kristin Anderson Cronin Clinical Assistant Professor/Nursing Coordinator of Community Health Education Services

Elizabeth Bright	Clinical Assistant Professor
Lori Cronin	Clinical Assistant Professor/Associate Degree Program Direction
Lisa Green	Clinical Assistant Professor/Faulty Development
Jamie Hansen	Clinical Associate Professor
Megan Holz	Clinical Associate Professor/Simulation Director
Afsaneh Jahn-Peyma	Instructional Faculty
Teresa Kaul	Chair of the Nursing Department Clinical Associate Professor
Rachele Mead	Lecturer
James Mikolajczak	Clinical Assistant Professor
Eva Nitka	Instructional Faculty
Sonia Pacheco	UCC/CU Student Health Clinic nurse
Kelly Raether	Lecturer/Clinical Coordinator

Virginia Riggs	Instructional Faculty
Michael Rodrigues	Clinical Assistant Professor
Karie Ruekert Kobiske	Clinical Associate Professor/MSN Program Director
Kathy Sampson	Distinguished Lecturer
Susan M. Schneider	Lecturer
Jill Switalski	Laboratory Coordinator
Pam Ziolkowski	UCC/CU Student Health Clinic Nurse

Carroll University Department of Nursing offers a program leading to a Bachelor of Science in Nursing (BSN) degree. Established in fall of 2002, the baccalaureate degree program in nursing at Carroll University is accredited by the Commission on Collegiate Nursing Education, 655 K Street NW Suite 750, Washington DC 20001, 202.887.6791. The nursing department has ongoing approval of the Wisconsin State Board of Nursing, is a member of the American Association of Colleges of Nursing and the National League for Nursing. Carroll University is accredited by the Higher Learning Commission and is a member of the North Central Association.

The Higher Learning Commission North Central Association 30 North LaSalle St., Suite 2400 Chicago, IL 60602 Phone: 800.621.7440	Wisconsin Department of Safety and Professional Services Wisconsin State Board of Nursing DSPS PO Box 8366 Madison, WI 53708-8366 608-266-2112
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National League for Nursing (NLN) 2600 Virginia Ave, NW Eighth Floor Washington, DC 20037	National League for Nursing Commission for Nursing Education Accrediation (CNEA) 2600 Virginia Ave, NW Eighth floor Washington, DC 20037
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American Association of Colleges Nursing 655 K Street, NW, Suite 750 Washington, DC 20001	The baccalaureate degree program in nursing at Carroll University is accredited by the Commission on Collegiate of Nursing Education, 655 K Street, NW, Suite 750, Washington, DC 20001 202.887.6791
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Mission of the Nursing Program

The Carroll University Nursing Program prepares students, in diverse settings, for professional nursing practice and other global pursuits.

Philosophy and Vision of the Nursing Program

Our philosophy, in preparing professional nurses at the generalist level, is to provide grounding in the liberal arts in addition to career preparation. The educational process must allow for diversity, curiosity, and difference of opinion, but must not allow for indifference or neglect of academic rigor. We expect nursing students to focus on and connect nursing to every general education or liberal studies course. However, it is in clinical practice that the student will demonstrate patterns of professional behaviors that follow the legal and ethical codes of nursing and promote the actual or potential well being of patients. The promotion of health and wellness is a focus of all nursing practice, but nurses, more than any other health care discipline, takes care of the sick; therefore, acute care experience is a necessary background for any generalist practice setting and is a focus of generalist

education. We believe nursing students are best served when they are educated in a variety of settings to provide care to diverse populations across all environments. The promotion of health and wellness, the prevention of injury and restoration of health are accomplished for a diversity of socio-economic, racial and ethnic populations in all settings.

Nursing faculty at Carroll University believe students are individuals who come with learning preferences, different experiences, varied goals, and therefore, have unique learning needs. Active learning is a teaching/learning partnership. The faculty recognizes that learning is a lifelong process and that undergraduate education is the beginning of the progression from novice to expert nurse. The baccalaureate program prepares the student to enter professional nursing practice as a beginning provider of nursing care in a variety of settings, cultivates a commitment to professional development, and provides the foundation for graduate study.

Curriculum

Our philosophy requires that the curriculum be responsive to the community of interest. To accomplish our mission, we consider it necessary to be flexible, to change quickly as society needs and technology changes. The program has been designed to be flexible in progression and sequencing, without sacrificing academic rigor. The conceptual framework, developed by nursing faculty, organizes the curriculum in a logical progression over the length of the program. The overviews in each course syllabus will illustrate how the essential components of professional nursing education are used in that course to prepare students to take on the characteristics that will allow them to function in the professional nursing role. Course objectives will demonstrate the achievement necessary for the student, at each level of the curriculum, to evidence competency as they progress.

Vision of the Carroll University Nursing Program

Be a leader of Baccalaureate nursing education.

Program Outcomes

At the completion of the Bachelor of Science Nursing program, the graduate nurse will:

- I. Value a solid base in liberal education as the cornerstone of nursing practice and education.
- II. Operationalize knowledge and skills in leadership, quality improvement and patient safety to provide high quality healthcare.
- III. Model professional nursing practice that is grounded in the translation of current evidence into practice.
- IV. Integrate knowledge and skills in information management and patient care technology in the delivery of quality patient care.
- V. Recognize and distinguish healthcare policies, including financial and regulatory, which influence the nature and functioning of the healthcare system.
- VI. Effectively communicate and collaborate to deliver high quality and safe patient care.
- VII. Incorporate the concepts of health promotion and disease prevention at the individual and population level.
- VIII. Internalize professionalism and the inherent values of altruism, autonomy, human dignity, integrity and social justice.
- IX. Practice as a baccalaureate-graduate nurse
 - a. prepared to deliver care to individuals, families, groups, communities and populations across the lifespan and across the continuum of healthcare environments.
 - b. understanding and respecting the variations of care, the increased complexity and the increased use of healthcare resources inherent in caring for patients.

Academic Progression Standards

The academic progression standards for the nursing program are presented in the Academic Program and Policies section of this Catalog. Or, [click here](#) for a direct link.

Reapplication Policy for Dismissed or Withdrawn Students

Please see Academic and Program Policies to view the policy.

Technical Standards for Admission to and Progression in the Carroll University Bachelor of Science in Nursing Program

Successful participation in the Carroll University Bachelor of Science in Nursing Program requires that a candidate possess the ability to meet the requirements of the program. Though the program may modify certain course requirements in order to provide a handicapped person with an equivalent opportunity to achieve results equal to those of a non-handicapped person, there are no substitutes for the following essential skills. The applicant/candidate must initially meet these requirements to gain admission to the program and must also continue to meet them throughout participation in the program.

General Ability: The student is expected to possess functional use of the senses of vision, touch, hearing and smell so that data received by the senses is integrated, analyzed and synthesized in a consistent and accurate manner. The student is expected to possess the ability to perceive pain, pressure, temperature, position, vibration and movement in order to effectively evaluate patients. A student must be able to respond promptly to urgent situations.

Observational Ability: The student must have the ability to make accurate visual observations and interpret them in the context of clinical/laboratory activities and patient care experiences. The student must be able to document these observations accurately.

Communication Ability: The student must communicate effectively verbally and non-verbally to obtain information and explain that information to others. Each student must have the ability to read, write, comprehend and speak the English language to facilitate communication with patients, family members and other members of the health care team. The student must be able to document and maintain accurate records, present information in a professional manner and provide patient instruction to effectively care for patients and their families.

Motor Ability: The student must be able to perform gross and fine motor movements with sufficient coordination needed to provide complete physical assessments and provide safe effective care for patients. The student is expected to have psychomotor skills necessary to perform or assist with procedures, treatments, administration of medication and emergency interventions including CPR if necessary. The student must have sufficient levels of neuromuscular control and eye-to-hand coordination as well as possess the physical and mental stamina to meet the demands associated with extended periods of sitting, standing, moving and physical exertion required for safe patient care. Students must be able to bend, squat, reach, kneel or balance. Clinical settings may require that students have the ability to carry and lift loads from the floor, from 12 inches from the floor, to shoulder height and overhead. The student must be able to occasionally lift 50 pounds, frequently lift 25 pounds and constantly lift 10 pounds. The student is expected to be able to maintain consciousness and equilibrium and have the physical strength and stamina to perform satisfactorily in clinical settings.

Intellectual: Conceptual Ability: The student must have the ability to develop problem-solving skills essential to professional nursing practice. Problem solving skills include the ability to measure, calculate, reason, analyze, synthesize objective and subjective data, and to make decisions in a timely manner that reflects thoughtful deliberation and sound clinical judgment. The student must demonstrate application of these skills and possess the ability to incorporate new information from peers, instructors and the nursing/healthcare literature to formulate sound judgment to establish care plans and priorities in patient care activities.

Behavioral and Social Attributes: The student is expected to have the emotional stability required to exercise sound judgment, complete assessment and intervention activities. Compassion, integrity, motivation and concern for others are personal attributes required of those in the nursing program. The student must fully utilize intellectual capacities that facilitate prompt completion of all responsibilities in the classroom and clinical settings; the development of mature, sensitive and effective relationship with patients and other members of the healthcare team. The ability to establish rapport and maintain interpersonal relationships with individuals, families and groups from a variety of social, emotional, cultural and intellectual backgrounds is critical for practice as a nurse. Each student must be able to adapt to changing environments; display flexibility; accept and integrate constructive criticism given in the classroom and clinical settings; and effectively collaborate in the clinical setting with other members of the healthcare team.

Ability to Manage Stressful Situations: The student must be able to adapt to and function effectively in relation to stressful situations encountered in both the classroom and clinical settings, including emergency situations. Students will encounter multiple stressors while in the nursing program. These stressors may be (but are not limited to) personal, patient care/family, faculty/peer and/or program related.

Background Check: Clinical facilities require that Carroll University perform background checks on all students before they are allowed to participate in clinical experiences. Therefore, students will be required to have a background check performed before being allowed into clinical practice

Evaluation: Carroll University may require that the applicant/student undergo a physical examination and/or an occupational skills evaluation. The University will endeavor to select and administer evaluations which accurately reflect the applicant's/candidate's aptitude or achievement level rather than the applicant's/candidate's handicap. A handicapped applicant/candidate shall not, on the basis of his or her handicap (except those which would preclude the essential skills outlined above) be excluded from participation in, denied the benefits of, nor be subjected to discrimination in the program.

¹. Handicapped as defined by the federal government pursuant to SS 504 of the Rehabilitation Act of 1973.

Caregiver Background Check

The applicant/candidate/student must complete a Background Information Disclosure Form prior to clinical placement in the program. The university intends to fully comply with the requirements of the Wisconsin Caregiver Background Check Law which requires hospitals and other health care and treatment entities to perform background checks on all persons who have direct, regular contact with clients. Certain convictions may prevent or significantly limit the ability of the university to place a student in a clinical program resulting in the student being unable to meet the university's graduation requirements. The university reserves the right to reject the application of a candidate or remove a student from the program if the university determines that the results of the caregiver background check demonstrate that the applicant/student does not exhibit behavior and social attributes consistent with the program's Technical Standards.

Carroll University Health Policy for Nursing Students

Policy:

Prior to the first clinical placement each student must show evidence that they are able to meet the clinical requirements of the nursing program. These requirements include current health history, immunization and physical examination data. In addition, all students must have on file current CPR certification and a caregiver background check. The nursing student handbook lists all health and immunization clinical requirements. If an exception to the immunization requirements is approved, the University cannot guarantee that its affiliated hospitals and clinics will allow the student to participate in patient care, which is a fundamental requirement of the clinical education component of the Nursing Program. Students manage clinical requirements through CastleBranch, a certified, confidential profile system that students will use well into their nursing careers.

Procedure:

- Evidence of the completed history and exam and immunization record must be on file before the onset of the first clinical experience. The University Health History and Physical Examination form meets the history and exam clinical experience requirement.
- Clinical partners require the History and physical exam be completed and signed by a physician or nurse practitioner. The physical exam can be completed at the Carroll University Health Center.
- It is not necessary to repeat the physical exam every year if there is no change in the student's health status.
- Before your first clinical placement one of the following is required: Two step TB skin test (1-3 weeks apart) or QuantiFERON Gold blood test or if you have a history of a positive TB skin test, provide a negative Chest XRay report. An annual Tuberculosis screening questionnaire is used when a student has a positive TB screening and a negative CXR on file.
- Some clinical partners require a urine drug screen. The urine drug screen can be completed at the Carroll University Health Center. • Cost of the physical exam, immunizations, and drug screen is the responsibility of the student.
- Students who have not complied with the health policy will not be allowed in any clinical site.

Time Commitment

The Nursing Program is rigorous, labor intensive, and requires more time and commitment than many other areas of study. Clinical nursing courses require a minimum of 3 hours of direct clinical experience per semester credit hour. This does not include time that is required for travel, clinical preparation at the assigned clinical agency or study prior to or after the clinical experience. Therefore, it is strongly recommended that students in the Nursing Program limit their employment and/or involvement in non-student related activities. Students are expected to be available Monday through Friday throughout the academic year. Students will be expected to participate in clinical experiences that occur on weekends and on shifts other than day shifts (0700-1530). Students in the capstone experience must understand that their clinical experience may be evenings or night shifts and/or weekend shifts.

Bachelor of Science in Nursing

Nursing Major

Department of Nursing

Clinical Nursing Core Requirements

All applicants must be in good health and free from communicable diseases and be able to carry out the functions of a professional nurse as specified in the Technical Standards. Students must maintain current immunizations and CPR certification. Additional tests may be required by specific agencies in which the student has clinical experiences. The program will notify students when such tests are required. Students who fail to comply will not be allowed in clinical. All costs associated with clinical requirements is the responsibility of the student.

Nursing courses begin during the freshman year allowing early participation in clinical service learning activities. Students will have diverse service learning experiences in a variety of clinical settings.

The number of hours spent in laboratory (including clinical) experience varies from semester to semester and is based on one (1) semester credit being equal to three (3) hours of clinical per week.

Approximate time commitment for clinical courses:

200 level - 6 hours/week for one semester
300 level Junior year - 15 hours/week during one semester
400 level Senior year - 15 hours/week during both semesters

Policy Statement on Student Attendance at Clinical

The university reserves the right to require a student to repeat all or any part of a clinical course when, in the student evaluation by the course instructor, the time that the student has been absent from clinical/practicum makes it impossible to evaluate the student's level of achieving the course objectives. Make up time is not guaranteed and is dependent upon faculty and clinical availability. The student is responsible for any costs involved in repeating the course and/or making up time lost.

Learning and Study Resources

Learning resource centers for student learning and testing are available. The nursing laboratory provides space and resources for students to practice and test their mastery of psychomotor skills used in patient care. The Carroll Library Learning Commons has a range of resources to support the nursing curriculum. The Walter Young Center provides personal counseling and the Study Center offers students opportunities to strengthen academic skills. All students should work closely with their advisor in planning their progression in the program.

Fees

Undergraduate tuition and other fees apply to nursing students. A program fee of \$750.00 per year is also assessed for proficiency testing, disposable supplies, and equipment maintenance.

Licensure Examination

Upon completion of all program requirements, the graduate is eligible to sit for the National Council Licensure Examination for Registered Nurses (NCLEX-RN). A graduate must pass this examination to be licensed and practice as a registered nurse (RN).

Although, no nursing program can guarantee success on the NCLEX-RN examination, the Carroll nursing curriculum integrates preparation for the licensure exam through-out the nursing program.

Bachelor of Science in Nursing Major (57 Credits)

Nursing courses build on the knowledge gained from liberal arts background in humanities, fine arts, social sciences, and natural sciences. The overall program outcome is to prepare professional nurses at the generalist level, with a grounding in the liberal arts, in addition to professional career preparation.

Preparing students to function as:

1. Providers of direct and indirect care to individuals, groups, communities, and populations.
2. Designers, managers, and coordinators of care.
3. Members of a profession.

Courses in the Major

- NRS 100 - Health Care and Nursing 4 Hour(s)
- NRS 100L - Health Care and Nursing Laboratory 0 Hour(s)
- NRS 230 - Health Assessment 4 Hour(s)
- NRS 230L - Health Assessment Laboratory 0 Hour(s)
- NRS 233 - Foundations of Nursing Practice 4 Hour(s)
- NRS 234 - Foundations - Practicum 2 Hour(s)
- NRS 236 - Human Pathophysiologic Responses 4 Hour(s)
- NRS 300 - Critical Inquiry in Nursing Research 2 Hour(s)
- NRS 300H - Critical Inquiry in Nursing Research Honors 2 Hour(s)
- NRS 301 - Pharmacology 3 Hour(s)
- NRS 310 - Mental Health Nursing Care 3 Hour(s)
- NRS 316 - Introduction to Medical Surgical Nursing 4 Hour(s)
- NRS 317 - Medical Surgical Nursing Practicum 5 Hour(s)
- NRS 322 - Family-Centered Maternal Child Care 4 Hour(s)
- NRS 415 - Community Health Practicum 2 Hour(s)
- NRS 416 - Community Health Nursing Care 3 Hour(s)
- NRS 417 - Advanced Medical Surgical Nursing 3 Hour(s)
- NRS 419 - Advanced Medical Surgical Practicum 5 Hour(s)
- NRS 429 - Health Policy and Administration 3 Hour(s)
- NRS 431 - Capstone 4 Hour(s)
- NRS 432 - Professional Practice Preparation 1 Hour(s)

Note:

Nursing electives in specialty clinical areas may be offered occasionally. If these courses are elected the nursing student may accomplish a nursing major of 62 or 66 credits.

Required Support Courses

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- BIO 212 - Microbiology for the Health Sciences 4 Hour(s)
- BIO 212L - Microbiology for the Health Sciences Laboratory 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 221 - Life-Span Psychology 4 Hour(s)

Bachelor of Science in Nursing Requirement

- Students must take CMP 112 and CMP 114

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Department of Physical Therapy

Chairperson: Sara Deprey

Professor(s):

Associate Professor(s):

Assistant Professor(s):

Instructors:

Room PT112 A

Telephone: 262-951-3051

Fax:

E-mail: sdeprey@carrollu.edu

Senior Lecturer in Physical Therapy

Vickie Ericson

Laboratory Coordinator

Abigail Fredrickson Clinical Assistant Professor of Athletic Training and Physical Therapy

Associate Vice President for Partnerships and Innovation

Jane F. Hopp

Associate Professor of Physical Therapy

Ashley B. Knuth Clinical Assistant Professor of Physical Therapy

Amy E. McQuade Clinical Assistant Professor of Physical Therapy

Clinical Assistant Professor of Physical Therapy

Lindsey Palmen

Director of Clinical Education

Lenny Ramsey Assistant Professor of Physical Therapy

Melissa Strzelinski Clinical Assistant Professor of Physical Therapy

The mission of the Doctor of Physical Therapy Department at Carroll University is to educate students to become licensed physical therapists who are prepared to provide compassionate, respectful care in a dynamic health care environment and contribute to the profession and community. Education is grounded in evidence-based practice that includes consideration of diverse patient/client values, relevant research, and clinical experiential reasoning.

The Entry-level Doctor of Physical Therapy Program is fully accredited by the Higher Learning Commission of the North Central Association. The Doctor of Physical Therapy Program at Carroll University is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: accreditation@apta.org; website: <http://www.capteonline.org>.

Curriculum

The Carroll University Entry-level Physical Therapy Program consists of a six-year course of study, divided into pre-professional and professional phases. During the pre-professional phase (freshman, sophomore and junior years), students complete their undergraduate course work while fulfilling the requirements to enter the professional phase. Pre-physical therapy education at Carroll University is grounded in the humanities and the natural, behavioral and social sciences. For pre-Physical Therapy students pursuing an undergraduate degree at Carroll University, a Bachelor of Science or Arts degree in Sociology, Psychology, Exercise Science, Biology, Health Care Administration, Business Administration, Communications, Public Health, History or Spanish is typically used to complete the Physical Therapy Program in six years.

The professional phase begins the senior year, lasts eight semesters, and is subdivided into two phases, DPT Year 1 and DPT Year 2. During Year 1 of the professional program, fall and spring terms of senior year, course work in physical therapy begins at the 5400 level. The 5400 level courses present the basic, behavioral, professional, and applied science foundations that are subsequently applied in the 6500 and 7600 level courses taken during Year 2 of the professional program. Bachelor's degrees are awarded at the conclusion of the senior year to those individuals satisfying all Carroll undergraduate requirements.

Immediately following Commencement, students begin the graduate segment of DPT Year 2 course work within the professional program. Here the 6500 and 7600 level courses in physical therapy are offered in a developmental sequence that integrates knowledge throughout the student's professional education. Upon successful completion of Year 1 and Year 2 of the professional curriculum, an Entry-level Doctor of Physical Therapy degree is awarded. Graduates participate in the University's Commencement ceremony in May of year six.

Admission

See the Admissions section of this catalog.

Academic Progression

The Academic Progression standards for the Pre-Physical Therapy Program are presented in the Academic Program and Policies section of this catalog.

NOTE: See the Carroll University Graduate Catalog for descriptions of Physical Therapy (PTH) courses in Year 2 and 3 of the Entry-level Physical Therapy Program.

Optional Minors: Biology, Business, Chemistry, Psychology, Public Health, Sociology

Professional Program

Senior Year for Direct Admission and Transfer Students (30 credits).

Pre-Professional

Pre-Physical Therapy Direct-Admit

Curriculum

The entry-level Doctor of Physical Therapy program is a three year, eight semesters program. It is divided into DPT Year I, DPT Year II, and III.

During DPT Year I, course work in physical therapy begins at the 5000 level. The 5000-level courses present the basic, behavioral, professional and applied science foundations for the 6000- and 7000-level courses in DPT Year II and III. For students

that enter the program with direct admission status Bachelor's degrees are awarded to those individuals satisfying all relevant Carroll undergraduate requirements at the conclusion of the senior year/DPT Year I.

At the conclusion of DPT Year I, students move into the graduate phase of the program, DPT Year II, where 6000-level (summer, fall and spring terms of year five) and 7000-level (summer, fall and spring terms of year six) courses in physical therapy are offered. Knowledge gained in each course is integrated throughout subsequent courses. Physical Therapy Program graduates participate in the University's Commencement ceremony in May.

Year I

Fall Semester 15 Credits

- PTH 5400 - Foundations of Professional Practice 2 Hour(s)
- PTH 5401 - Statistical and Research Methods 3 Hour(s)
- PTH 5404 - Biomechanics 2 Hour(s)
- PTH 5404L - Biomechanics Laboratory 0 Hour(s)
- PTH 5406 - Exercise Physiology 2 Hour(s)
- PTH 5408 - Introduction to Patient Management 3 Hour(s)
- PTH 5408L - Introduction to Patient Management Laboratory 0 Hour(s)

Spring Semester 15 Credits

- PTH 5405 - Neuroscience 3 Hour(s)
- PTH 5412 - Tests & Measures 3 Hour(s)
- PTH 5413 - Clinical Anatomy 3 Hour(s)
- PTH 5414 - Advanced Kinesiology 3 Hour(s)
- PTH 5414L - Advanced Kinesiology Laboratory 0 Hour(s)
- PTH 5416 - Therapeutic Exercise 4 Hour(s)
- PTH 5416L - Therapeutic Exercise Laboratory 0 Hour(s)
- PTH 5460 - Clinical Pathology 2 Hour(s)

Summary of Credits

- Pre-Professional Phase 98 credits
- Professional Year 1 30 credits

Pre-Physical Therapy Emphasis with undergraduate major 128 credits

See the Carroll University Graduate Catalog for descriptions of Physical Therapy (PTH) courses in Year 2 and 3 of the Entry-level Physical Therapy Program.

School of Business

Hamid Akbari, Dean

- Majors: Accounting, Business Administration, Business Economics, Finance, Health Care Administration, Management and Leadership, Marketing
- Minors: Accounting, Economics, Finance, Health Care Administration, Management and Leadership, Marketing

- Graduate degree: Master of Business Administration

Chairperson: Hamid Akbari

Professor(s):

Associate Professor(s):

Assistant Professor(s):

Instructors:

Room

Telephone:

Fax: 262-524-7397

E-mail:

Faculty

<u>Name</u>	<u>Title</u>	<u>Area</u>
Hamid Akbari	Dean, School of Business	
Steve Brewer	Program Advisor	
Dennis Debrecht	Associate Professor	Economics
Sarah Esveldt	Senior Lecturer	Health Care Administration
Gregory Kuhlemeyer	Professor	Finance
Michael Levas	Assistant Professor	Marketing
Canchu Lin	Assistant Professor	Management & Leadership
Carol Tallarico	Professor	Economics
Wayne Wendling	Senior Lecturer	Analytics
Mary Ann Wisniewski	Professor	Management & Leadership
Lisa A. Zajc	Visiting Lecturer	Accounting

Bachelor of Science

Accounting Major

Program Advisors

Lisa Zajc, Visiting Lecturer of Accounting (lzajc@carrollu.edu)

The Accounting program provides superior educational opportunities that increase students' professional effectiveness and career success in complex business environments. Carroll University offers three options for students interested in preparing for a position of leadership and responsibility in accounting, whether it is in the public, private or governmental sectors of our economy.

Assurance of Learning Goals

1. **Demonstrate Global Awareness**

To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.

2. **Analyze Critically**

To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.

3. **Plan Strategically**

To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.

4. **Communicate Effectively**

To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Option 1: Accounting Major is designed for students wishing to complete an accounting major that will enable them, upon graduation, to obtain a position in a corporate or not-for-profit organization.

Option 2: Accounting major / CPA is designed for students interested in obtaining a Certified Public Accountant (CPA) designation. The CPA designation requires the completion of 150 credit hours. Students wishing to meet the requirements to "sit" for the CPA exam can do so in four years by following a specified curriculum. Through careful planning additional competencies can be gained that will allow the student to consider other certifications.

Option 3: Accounting major / CPA / MBA is designed for students wishing to major in accounting, obtain the CPA designation, and complete the MBA program within a four year period.

Transfer Students

Transfer students must complete 20 hours of accounting courses required for the major at Carroll University.

Students transferring in accounting courses required for the Accounting major must have completed the course within 4 years of the transfer date to Carroll University. The transfer date is defined as the start date of courses at Carroll.

Any 300 or 400 level accounting courses applied to the Accounting major requirements must have been completed within 5 years of completion of the undergraduate degree. Credits that do not meet this requirement must be approved by the program faculty.

Required Courses: (80 Credits)

- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 207 - Intermediate Accounting I 4 Hour(s)
- ACC 208 - Intermediate Accounting II 4 Hour(s)
- ACC 210 - Accounting Information Systems 2 Hour(s)
- ACC 305 - Advanced Accounting I 4 Hour(s)
- ACC 306 - Advanced Accounting II 4 Hour(s)
- ACC 310 - Advanced Cost Accounting and Budgeting 4 Hour(s)

- ACC 324 - Advanced Business Law 4 Hour(s)
- ACC 375 - Pre-internship Seminar 2 Hour(s)
- ACC 405 - Tax Accounting I 4 Hour(s)
- ACC 406 - Tax Accounting II 4 Hour(s)
- ACC 407 - Auditing 4 Hour(s)
- ACC 414 - Accounting Theory 4 Hour(s)
- ACC 480 - Internship in Accounting 1 - 12 Hour(s) *
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- CSC 220 - Information Systems 4 Hour(s)
- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)

Note:

* A minimum of 2 hours in ACC 480 is required for the major.

Recommended Courses for the CPA Exam

Recommended Courses for students who wish to sit for the CPA Exam

- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- MAT 130 - Elementary Functions 4 Hour(s)
- or Other higher level course of the same subject

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP 114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required support courses" within each major

Business Administration Major

Program Advisor

Dennis Debrecht, Associate Professor (ddebrech@carrollu.edu)

A Carroll University Business Administration degree facilitates integration of knowledge, development of lifelong skills, career preparation, and formulation of enduring personal values. Students who major in Business Administration are prepared for a variety of fulfilling and challenging careers with domestic and international organizations. These organizations need articulate, well-reasoning, effective leaders to manage business environments that are dynamic and increasingly complex.

Assurance of Learning Goals

- 1. Demonstrate Global Awareness**
To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.
- 2. Analyze Critically**
To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.
- 3. Plan Strategically**
To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.
- 4. Communicate Effectively**
To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Required Courses (44 credits)

- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 496 - Business Policies 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP 114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are (NOTE: choose either CMP112 and CMP114 **OR** MAT140 or higher and CSC110 or higher):

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Business Economics Major

Program Advisor

Dennis Debrecht, Associate Professor (ddebrech@carrollu.edu)

Carol Tallarico, Professor (ctallari@carrollu.edu)

Students who major in Business Economics complete coursework in all of the functional areas of business and then specialize in economics by taking upper division courses in microeconomics, macroeconomics, money and banking, international economics, and econometrics. Students in this major will use quantitative skills and economic theory to analyze varying economic problems. Business Economics prepares students for careers in both the private and public sectors of our economy.

Assurance of Learning Goals

1. **Demonstrate Global Awareness**
To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.
2. **Analyze Critically**
To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.
3. **Plan Strategically**
To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.

4. **Communicate Effectively**

To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Required Courses (64 Credits)

- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 496 - Business Policies 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- ECO 306 - Microeconomic Theory 4 Hour(s)
- ECO 307 - Macroeconomic Theory 4 Hour(s)
- ECO 314 - Econometrics 4 Hour(s)
- ECO 343 - Money and Banking 4 Hour(s)
- ECO 363 - International Economics 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Finance Major

Program Advisor

Gregory Kuhlemeyer, Professor (gkuhleme@carrollu.edu)

The Finance major teaches managers how to make the best long-term decisions for their organizations. Students learn how to plan, manage, analyze, interpret and present information with the goal of maximizing the wealth of business owners. A finance major should be good with numbers, a team player, a creative problem solver and an effective communicator.

Assurance of Learning Goals

1. **Demonstrate Global Awareness**
To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.
2. **Analyze Critically**
To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.
3. **Plan Strategically**
To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.
4. **Communicate Effectively**
To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Required Courses (64 Credits)

- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 321 - Careers in Finance 2 Hour(s)
- BUS 341 - Applied Risk Management 4 Hour(s)
- BUS 342 - Investment Management 4 Hour(s)
- BUS 344 - Management of Financial Institutions 4 Hour(s)
- BUS 356 - Applied Financial Management 4 Hour(s)
- BUS 480 - Internship in Business 1 - 12 Hour(s)
- BUS 496 - Business Policies 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

Note:

A minimum of 2 hours in BUS 480 is required for the major.

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP 114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Health Care Administration Major

Program Advisor

Sarah Esveldt, Senior Lecturer (sesveldt@carrollu.edu)

Carroll University's Healthcare Administration major will prepare students to lead and manage in the contemporary health care market. The HCA program will prepare graduates for entry-level positions in the health care industry. Graduates will have an understanding of the health care delivery system, the factors that influence the health care system, the knowledge to apply health care management concepts, and the skills and abilities that are necessary to be successful in health care management and leadership roles.

Assurance of Learning Goals

1. **Demonstrate Global Awareness**
To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.
2. **Analyze Critically**
To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.

3. **Plan Strategically**

To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.

4. **Communicate Effectively**

To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Required Courses (46 Credits)

- ACC 205 - Financial Accounting 4 Hour(s)
- BUS 101 - Introduction to Business 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- COM 290 - Intro to Health Communication 4 Hour(s)
- HCA 100 - Health Care Terminology 2 Hour(s)
- HCA 150 - Introduction to Health Care 4 Hour(s)
- HCA 200 - Health Care Economics and Policy 4 Hour(s)
- HCA 300 - Health Care Management 4 Hour(s)
- HCA 350 - Health Care Law and Ethics 4 Hour(s)
- HCA 400 - Health Care Financial Management 4 Hour(s)
- HCA 450 - Health Care Information Management 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP 114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Management and Leadership Major

Program Advisor

Mary Ann Wisniewski, Professor (mwisniew@carrollu.edu)

A major in Management and Leadership prepares students to work in a variety of organizations, from small businesses, to nonprofit organizations, to multinational companies. Students will develop skills in setting compelling organizational goals and in leading others to effectively and efficiently use resources to achieve those goals. A degree in Management and Leadership can be applied to practically every industry and organization, including department managers, team managers, project managers, to CEOs.

Assurance of Learning Goals

- 1. Demonstrate Global Awareness**
To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.
- 2. Analyze Critically**
To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.
- 3. Plan Strategically**
To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.
- 4. Communicate Effectively**
To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Required Courses (64 hours)

- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- BUS 265 - Human Resource Management 4 Hour(s)
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 479 - Consulting Management 4 Hour(s)
- BUS 496 - Business Policies 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- LEA 190 - Leadership and Personal Effectiveness 4 Hour(s)
- LEA 302 - Leadership Theory and Practice 4 Hour(s)
- LEA 499 - Leading Change 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP 114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor of Science Requirements

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Marketing Major

Program Advisors:

Michael Levas, Associate Professor (mlevas@carrollu.edu)

Steve Brewer, Program Advisor (sbrewer@carrollu.edu)

A Carroll University Marketing major allows students to study all of the functional areas of business and then specialize further within the field of marketing. Students will take courses in business to business marketing, promotion management, and market research as well as additional elective courses in marketing. Students who major in Marketing are prepared for a variety of fulfilling and challenging careers with domestic and international organizations. These organizations need articulate, well-reasoning, effective leaders to help build their brands as they compete in a global environment.

Assurance of Learning Goals

1. **Demonstrate Global Awareness**
To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.
2. **Analyze Critically**
To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.
3. **Plan Strategically**
To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.

4. **Communicate Effectively**

To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Required Courses (60 Credits)

- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 320 - Promotion Management 4 Hour(s)
- BUS 327 - Business to Business Marketing 4 Hour(s)
- BUS 400 - Digital and Social Media Marketing 4 Hour(s)
- BUS 435 - Marketing Research 4 Hour(s)
- BUS 496 - Business Policies 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)

Choose 4 Credit Hours from the Following:

- BUS 360 - Career Development 4 Hour(s)
- BUS 480 - Internship in Business 1 - 12 Hour(s)
- COM 208 - Introduction to Public Relations 4 Hour(s)
- GRC 106 - Intro-Communication Technology 2 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 360 - Interactive Media 4 Hour(s)
- PSY 228 - Consumer Behavior 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP 114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor Of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each Major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each Major.

Minor

Accounting Minor

Requirements

- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 207 - Intermediate Accounting I 4 Hour(s)
- ACC 208 - Intermediate Accounting II 4 Hour(s)

Choose 4 or More Hours from the Following:

- ACC 206 - Managerial Accounting 2 Hour(s)
- ACC 210 - Accounting Information Systems 2 Hour(s)
- ACC 305 - Advanced Accounting I 4 Hour(s)
- ACC 310 - Advanced Cost Accounting and Budgeting 4 Hour(s)
- ACC 324 - Advanced Business Law 4 Hour(s)
- ACC 405 - Tax Accounting I 4 Hour(s)
- ACC 406 - Tax Accounting II 4 Hour(s)

Note:

Transfer credit for accounting courses required for the accounting minor will only be accepted if the course was taken in four years prior to the date of transfer to Carroll University. The transfer date is defined as the date of the start of courses at Carroll.

Applied Business Analytics Minor

Becoming an "analytics enabled" professional is the goal of the business analytics minor. Regardless of students' majors, this minor provides the tools necessary to use and understand analytics in their daily work. This is a particularly important addition to any major, however it is particularly useful for marketing, finance, management, and accounting. The minor builds on the foundation of BUS114 and CMP114 and explores data visualization and predictive analytics. Students finish the minor with a capstone project that uses data to address a business problem.

Required Courses

The Applied Business Analytics Minor consists of 18 credits focusing on analytic practice, analysis, visualization, and description.

- BUS 280 - Fundamentals of Applied Analytics 4 Hour(s)
- BUS 307 - Data Visualization Tools and Techniques 4 Hour(s)
- BUS 399 - Applied Business Analytics Projects 2 Hour(s)

Electives

Must take any 2 courses from any of these areas:

Business

- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 435 - Marketing Research 4 Hour(s)
- ECO 314 - Econometrics 4 Hour(s)

Methodology

- COM 150 - Research Methodology 4 Hour(s)
- ENV 367 - Geographic Information Systems 4 Hour(s)
- POL 266 - Methods of Social Science Research 4 Hour(s)
- OR
- SOC 266 - Methods of Social Science Research 4 Hour(s)

Design and Communications

- COM 201 - Presentational Speaking 4 Hour(s)
- COM 227 - Technical Writing in Organizations 4 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 290 - Digital Design Studio 4 Hour(s)

Ethics

- COM 370 - Communication Technology and Society 4 Hour(s)
- PHI 106 - Ethics, Values and Judgment 4 Hour(s)
- PHI 210 - Philosophy, Politics, and Economics 4 Hour(s)

Business Analytics Minor

The Business Analytics Minor consists of 18 credits focusing on analytic practice, analysis, visualization, and description.

Core - Must take all of these courses

- BUS 280 - Fundamentals of Applied Analytics 4 Hour(s)
- BUS 307 - Data Visualization Tools and Techniques 4 Hour(s)
- BUS 399 - Applied Business Analytics Projects 2 Hour(s)

Electives - Must take any 2 courses from any of these areas

Business

- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 435 - Marketing Research 4 Hour(s)
- ECO 314 - Econometrics 4 Hour(s)

Methodology

- COM 150 - Research Methodology 4 Hour(s)
- ENV 367 - Geographic Information Systems 4 Hour(s)
- POL 266 - Methods of Social Science Research 4 Hour(s)
- SOC 266 - Methods of Social Science Research 4 Hour(s)

Design and Communication

- COM 201 - Presentational Speaking 4 Hour(s)
- COM 227 - Technical Writing in Organizations 4 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 290 - Digital Design Studio 4 Hour(s)
- GRC 390 - Advanced Design Thinking 4 Hour(s)

Ethics

- COM 370 - Communication Technology and Society 4 Hour(s)
- PHI 106 - Ethics, Values and Judgment 4 Hour(s)
- PHI 210 - Philosophy, Politics, and Economics 4 Hour(s)

Economics Minor

Contact People

Dennis Debrecht, Associate Professor (ddebrech@carrollu.edu)

Carol Tallarico, Professor (ctallari@carrollu.edu)

Required Courses (16 Credits)

- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- ECO 306 - Microeconomic Theory 4 Hour(s)
- ECO 307 - Macroeconomic Theory 4 Hour(s)

Choose 4 or More Credit Hours from the Following:

- ECO 314 - Econometrics 4 Hour(s)
- ECO 343 - Money and Banking 4 Hour(s)
- ECO 363 - International Economics 4 Hour(s)

Finance Minor

Contact Person

Gregory Kuhlemeyer, Professor (gkuhleme@carrollu.edu)

Required Courses (8 Credits)

- BUS 101 - Introduction to Business 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)

Choose 8 or More Credit Hours from the Following:

- BUS 341 - Applied Risk Management 4 Hour(s)
- BUS 342 - Investment Management 4 Hour(s)
- BUS 344 - Management of Financial Institutions 4 Hour(s)

Healthcare Administration Minor

Contact Person

Sarah Esveldt, Senior Lecturer (sesveldt@carrollu.edu)

Required Courses (14 Credits)

- BUS 101 - Introduction to Business 4 Hour(s)
- HCA 100 - Health Care Terminology 2 Hour(s)
- HCA 150 - Introduction to Health Care 4 Hour(s)
- HCA 300 - Health Care Management 4 Hour(s)

Choose Two Courses from the Following:

- HCA 200 - Health Care Economics and Policy 4 Hour(s)
- HCA 350 - Health Care Law and Ethics 4 Hour(s)
- HCA 400 - Health Care Financial Management 4 Hour(s)
- HCA 450 - Health Care Information Management 4 Hour(s)

- COM 290 - Intro to Health Communication 4 Hour(s)

Management and Leadership Minor

Contact Person

Mary Ann Wisniewski, Professor (mwisniew@carrollu.edu)

Required Courses (8 Credits)

- BUS 101 - Introduction to Business 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)

Choose 8 or More Credit Hours from the Following:

- BUS 265 - Human Resource Management 4 Hour(s)
- BUS 479 - Consulting Management 4 Hour(s)
- LEA 190 - Leadership and Personal Effectiveness 4 Hour(s)
- LEA 302 - Leadership Theory and Practice 4 Hour(s)
- LEA 499 - Leading Change 4 Hour(s)

Marketing Minor

Contact People

Michael Levas, Associate Professor (mlevas@carrollu.edu)

Shaoqiong (Annie) Zhao, Assistant Professor (szhao@carrollu.edu)

Required Courses (8 Hours)

- BUS 101 - Introduction to Business 4 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)

Choose 8 or More Credit Hours from the Following:

- BUS 320 - Promotion Management 4 Hour(s)
- BUS 327 - Business to Business Marketing 4 Hour(s)
- BUS 400 - Digital and Social Media Marketing 4 Hour(s)
- BUS 435 - Marketing Research 4 Hour(s)

School of Education and Human Services

Kathrine Kramer, Interim Dean

Telephone: 262-650-4917

Fax: 262-524-7571

E-mail: kkramer@carrollu.edu

Department of Education

- Majors: Elementary Education, Educational Studies, Secondary Education
- Graduate degree: Master of Arts in Teaching, Master of Education
- Master of Science degree: Educational Leadership

Bachelor of Science

Educational Studies Major

The Educational Studies major provides students with a foundation in preparation for possible education-related careers outside of the field of traditional K-12 classrooms. Through course selection and possible minors, students design a focus relative to their career interests. This non-licensure major is also appropriate for those who desire an educational foundation to supplement their other majors or professional fields of study.

Using education as a lens, this major facilitates the development of the 21st century skills necessary for success in a variety of professions. Through the program students will:

1. Explore and analyze issues faced by professionals working in various traditional and non-traditional educational settings.
2. Understand the cultural influences of family, class, religion, language, race/ethnicity, sexual orientation and school community on an individual's educational opportunity.
3. Identify personal and professional perspectives in multicultural and intercultural education.
4. Understand and implement the methodological approaches used in educational research.
5. Articulate the interrelationship between cognitive, social, emotional, and physical development.

The Educational Studies major provides students with an opportunity to gain a foundation in education. This major will also benefit students whose future careers require working with children, adolescents, young adults, and adults outside of a traditional K-12 setting.

This 34-credit major provides a marketable complement to many majors and minors across campus. Educational Studies affords students who are interested in education an opportunity to enroll in foundational coursework. Please note that students who complete this major will not meet the competencies necessary to be endorsed for a Wisconsin teaching license. In the event that students decide to pursue a major in Elementary Education or Secondary Education, coursework from the major is applicable.

Required Courses

- EDU 102 - Exploration in Education and Society 4 Hour(s)
- EDU 202 - Intercultural Context in Education 4 Hour(s)

- EDU 203 - Educational Psychology 4 Hour(s) **or**
- PSY 221 - Life-Span Psychology 4 Hour(s)

- EDU 395 - Design, Development and Delivery of Educational Programs 4 Hour(s)
- EDU 400 - Capstone in Elementary Educational Studies 4 Hour(s)

- EDU 405 - Educational Studies Internship 2 Hour(s)

Electives

(Select a minimum of 12 credits from the following):

- EDU 249 - Development, Observation, and Assessment 4 Hour(s)
- EDU 261 - Introduction to Inclusive Education 4 Hour(s)
- EDU 290 - Instructional Design for the Early Adolescent/Adolescent Learner 2 Hour(s)
- EDU 302 - Educational Advocacy 4 Hour(s)
- EDU 306 - Literacy in the Disciplines 4 Hour(s)

- EDU 323 - Literacy I: Early Childhood - Middle Childhood 4 Hour(s)
and
- EDU 326 - Mathematics in the Elementary/Middle School 4 Hour(s)

- EDU 360 - Teaching and Learning with English Language Learners 2 Hour(s)
- EDU 364 - Collaboration for Academic, Social and Career Development 4 Hour(s)

Note:

For BS/Math/Computational requirements, students may complete:

- CMP 112 - Computational Thinking I 4 Hour(s)
and
- MAT 104 - Foundations of Elementary Mathematics I 4 Hour(s)
and
- MAT 201 - Foundations of Elementary Mathematics II 4 Hour(s) **or**
- CMP 112 - Computational Thinking I 4 Hour(s)
and
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

Elementary Education Major

Department of Education

Courses in the Major

- EDU 102 - Exploration in Education and Society 4 Hour(s)
- EDU 202 - Intercultural Context in Education 4 Hour(s)
- EDU 203 - Educational Psychology 4 Hour(s)
- EDU 210 - Field Experience in Education I 1 Hour(s)
- EDU 249 - Development, Observation, and Assessment 4 Hour(s)
- EDU 261 - Introduction to Inclusive Education 4 Hour(s)
- EDU 302 - Educational Advocacy 4 Hour(s)
- EDU 311 - Field Experience in Education II 1 Hour(s)
- EDU 323 - Literacy I: Early Childhood - Middle Childhood 4 Hour(s)

- EDU 324 - Literacy II: Middle Childhood - Early Adolescence 4 Hour(s)
- EDU 325 - Science and Social Studies in the Elementary/Middle School 4 Hour(s)
- EDU 326 - Mathematics in the Elementary/Middle School 4 Hour(s)
- EDU 360 - Teaching and Learning with English Language Learners 2 Hour(s)
- EDU 408 - edTPA development 1 Hour(s)
- EDU 419 - Early Childhood/Elementary Student Teaching 6 Hour(s)
- EDU 420 - Early Childhood/Elementary Student Teaching 6 Hour(s)

Required Support Courses

- MAT 104 - Foundations of Elementary Mathematics I 4 Hour(s)
- MAT 201 - Foundations of Elementary Mathematics II 4 Hour(s)
- Must complete Physical/Health Education online module.
- Must complete Arts Integration online module.

Bachelor of Science for Elementary Education

The requirements for the Bachelor of Science Degree in Elementary Education are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- MAT 104 - Foundations of Elementary Mathematics I 4 Hour(s)
- MAT 201 - Foundations of Elementary Mathematics II 4 Hour(s)

Required Core and General Education Program Area Courses

*Students should consult with their Education advisor/mentor to select courses that meet the GE1 and GE 2 course sequence requirements, the Cross-Cultural Development course and Cross-Cultural Experience.

Special Education Dual Certification

The Teacher Education Program offers Cross Categorical Special Education (K-12) with two certification tracks: 1) Special Education/Elementary Education and 2) Special Education/Secondary Education. The program focuses on research-based models, including effective strategies and interventions to meet the academic, social and emotional needs of all students.

Emphasis in Dual Certification:

- EDU 234 - Language Development and Disorders of the Exceptional Child 4 Hour(s)
- EDU 312 - Field Experience-Adaptive Education 1 Hour(s)
- EDU 330 - Introduction to Diagnostic Assessment of Students with Exceptional Needs 4 Hour(s)
- EDU 364 - Collaboration for Academic, Social and Career Development 4 Hour(s)
- EDU 372 - Instructional Design and Methodology for Students with Mild to Moderate Learning Disabilities 4 Hour(s)
- EDU 373 - Instructional Design and Methodology for Students with Emotional/Behavioral Disabilities 4 Hour(s)
- EDU 423 - Special Education Student Teaching 6 Hour(s)

English as a Second Language Dual Licensure Program

The English as a Second Language (ESL) undergraduate program at Carroll University is an emphasis that can be added to an Elementary Education major or a Secondary Education major. Students who successfully complete the requirements for this emphasis and are endorsed for an initial teaching license through their grades K-9 (Elementary) or grades 4-12 (Secondary) program will be endorsed for the English as a Second Language #1395 as an additional license.

The ESL program is 20 credits in coursework and 7 credits in clinical experiences; of these 27 credits, candidates already complete 6 credits of this coursework and 7 credits of clinical experiences in their Elementary or Secondary Education major. Therefore, to complete the ESL program and be eligible for this additional license through the WI-DPI, students complete an additional 14 credits of coursework in addition to their Education major.

The following courses in the Elementary Education and Secondary Education majors apply to the ESL emphasis:

- EDU 202 - Intercultural Context in Education 4 Hour(s)
- EDU 311 - Field Experience in Education II 1 Hour(s)

Students complete the following coursework for the ESL emphasis:

- EDU 216 - Foundations of Multilingual Education 4 Hour(s)
- EDU 220 - Applied Linguistics for Educators 4 Hour(s)
- EDU 335 - Methods of Teaching and Learning with Emergent Bilingual Students 4 Hour(s)
- EDU 340 - Multiple Literacies and Multilingualism in Education 4 Hour(s)
- EDU 422 - Special Student Teaching Practicum 1 - 5 Hour(s)

NOTES:

*EDU 335 replaces the requirement for completing EDU 360 Teaching and Learning with English Language Learners (2 credits) in the Elementary Education or Secondary Education program

**Elementary Education majors adding the ESL emphasis complete EDU 422 as their second student teaching course rather than completing EDU 420; Secondary Education majors adding the ESL emphasis will complete EDU 422 as their second student teaching course rather than completing EDU 410

In order to successfully meet the standards for the English as a Second Language program and be eligible for licensure, students must meet the following requirements in addition to successfully completing the required coursework:

- Students meet the content knowledge assessment by earning a 3.0 in the coursework or passing the Praxis II exam in this content area
 - Students do not have to complete Praxis II exam if they earn a 3.0 in the ESL coursework
- Students must earn a C or better in each of the ESL courses
- Students must receive a satisfactory evaluation from their cooperating teacher in the ESL clinical placements

Minor

Educational Studies Minor

The Educational Studies minor introduces education, in a broad sense, as a significant cultural function in society. Using education as a lens, this minor facilitates the development of the 21st century skills necessary for success in a variety of professions. Students develop knowledge, skills, and dispositions to be effective in a wide-range of careers that require strong interpersonal communication, understanding of development and learning, and a multicultural and global perspective on society. This minor provides a marketable complement to many majors across campus.

Students completing the Educational Studies minor are able to apply the coursework toward the Educational Studies major or an Elementary Education major or Secondary Education major, if they choose to complete one of these programs. Please note that students who complete this minor will not meet the competencies necessary to be endorsed for a Wisconsin teaching license.

Required Courses:

- EDU 102 - Exploration in Education and Society 4 Hour(s)
- EDU 202 - Intercultural Context in Education 4 Hour(s)
- EDU 203 - Educational Psychology 4 Hour(s)
- EDU 395 - Design, Development and Delivery of Educational Programs 4 Hour(s)

Electives

(Select a minimum of 4 credits)

- EDU 249 - Development, Observation, and Assessment 4 Hour(s)
- EDU 261 - Introduction to Inclusive Education 4 Hour(s)
- EDU 302 - Educational Advocacy 4 Hour(s)
- EDU 290 - Instructional Design for the Early Adolescent/Adolescent Learner 2 Hour(s)
- EDU 360 - Teaching and Learning with English Language Learners 2 Hour(s)

Other Degrees

Secondary Education Major

Department of Education

Students complete the Secondary Education Major with one of the approved majors listed for licensure in the early adolescence through adolescence level. This qualifies the student to teach school subjects related to their major in grades 4 to 12. Students who complete the Secondary Education Major with an approved major in art, music, physical and health education, or Spanish and who have placements in both elementary and secondary school settings during the student teaching semester are eligible for licensure in their subject area in pre-kindergarten through grade 12.

Courses in the Major

- EDU 102 - Exploration in Education and Society 4 Hour(s)
- EDU 202 - Intercultural Context in Education 4 Hour(s)
- EDU 203 - Educational Psychology 4 Hour(s)
- EDU 210 - Field Experience in Education I 1 Hour(s)
- EDU 249 - Development, Observation, and Assessment 4 Hour(s)
- EDU 261 - Introduction to Inclusive Education 4 Hour(s)
- EDU 290 - Instructional Design for the Early Adolescent/Adolescent Learner 2 Hour(s)

- EDU 302 - Educational Advocacy 4 Hour(s)
- EDU 306 - Literacy in the Disciplines 4 Hour(s)
- EDU 353 - Instruction and Assessment for Disciplinary Content 4 Hour(s)
- EDU 360 - Teaching and Learning with English Language Learners 2 Hour(s)
- EDU 408 - edTPA development 1 Hour(s)
- EDU 409 - Secondary and K-12 Student Teaching 6 Hour(s)
- EDU 410 - Secondary and K-12 Student Teaching 6 Hour(s)

Required Core and General Education Program Area Courses

Students should consult with their Education advisor to select courses that meet the GE1 and GE 2 course sequence requirements, the Cross-Cultural Development course and Cross-Cultural Experience. Students seeking licensure in Science or Social Studies should enroll in ENV 120 or ENV 252 as part of their General Education Program.

Special Education Dual Certification

The Teacher Education Program offers Cross Categorical Special Education (K-12) with two certification tracks: 1) Special Education/Elementary Education and 2) Special Education/Secondary Education. The program focuses on research-based models, including effective strategies and interventions to meet the academic, social and emotional needs of all students.

Emphasis in Dual Certification: Cross-Categorical Special Education (K-12)

- EDU 234 - Language Development and Disorders of the Exceptional Child 4 Hour(s)
- EDU 312 - Field Experience-Adaptive Education 1 Hour(s)
- EDU 330 - Introduction to Diagnostic Assessment of Students with Exceptional Needs 4 Hour(s)
- EDU 364 - Collaboration for Academic, Social and Career Development 4 Hour(s)
- EDU 372 - Instructional Design and Methodology for Students with Mild to Moderate Learning Disabilities 4 Hour(s)
- EDU 373 - Instructional Design and Methodology for Students with Emotional/Behavioral Disabilities 4 Hour(s)
- EDU 423 - Special Education Student Teaching 6 Hour(s)

English as a Second Language Dual Licensure Program

The English as a Second Language (ESL) undergraduate program at Carroll University is an emphasis that can be added to an Elementary Education major or a Secondary Education major. Students who successfully complete the requirements for this emphasis and are endorsed for an initial teaching license through their grades K-9 (Elementary) or grades 4-12 (Secondary) program will be endorsed for the English as a Second Language #1395 as an additional license.

The ESL program is 20 credits in coursework and 7 credits in clinical experiences; of these 27 credits, candidates already complete 6 credits of this coursework and 7 credits of clinical experiences in their Elementary or Secondary Education major. Therefore, to complete the ESL program and be eligible for this additional license through the WI-DPI, students complete an additional 14 credits of coursework in addition to their Education major.

The following courses in the Elementary Education and Secondary Education majors apply to the ESL emphasis:

- EDU 202 - Intercultural Context in Education 4 Hour(s)
- EDU 311 - Field Experience in Education II 1 Hour(s)

Students complete the following coursework for the ESL emphasis:

- EDU 216 - Foundations of Multilingual Education 4 Hour(s)
- EDU 220 - Applied Linguistics for Educators 4 Hour(s)
- EDU 335 - Methods of Teaching and Learning with Emergent Bilingual Students 4 Hour(s)
- EDU 340 - Multiple Literacies and Multilingualism in Education 4 Hour(s)
- EDU 422 - Special Student Teaching Practicum 1 - 5 Hour(s)

NOTES:

*EDU 335 replaces the requirement for completing EDU 360 Teaching and Learning with English Language Learners (2 credits) in the Elementary Education or Secondary Education program.

**Elementary Education majors adding the ESL emphasis complete EDU 422 as their second student teaching course rather than completing EDU 420; Secondary Education majors adding the ESL emphasis will complete EDU 422 as their second student teaching course rather than completing EDU 410.

In order to successfully meet the standards for the English as a Second Language program and be eligible for licensure, students must meet the following requirements in addition to successfully completing the required coursework:

- Students meet the content knowledge assessment by earning a 3.0 in the coursework or passing the Praxis II exam in this content area.
 - Students do not have to complete Praxis II exam if they earn a 3.0 in the ESL coursework
- Students must earn a C or better in each of the ESL courses.
- Students must receive a satisfactory evaluation from their cooperating teacher in the ESL clinical placements.

Department of Education

Chairperson: Kathrine Kramer

Telephone: 262-650-4917

Fax: 262-524-7571

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Department Faculty

Name	Title	Area
RoseAnn Donovan	Assistant Professor	Education
Kimberly Hofkamp	Assistant Professor, Director of Clinical Experience	Education
Andrew Hurie	Lecturer in Education	Education

Kathrine Kramer	Interim Dean of the School of Education and Human Services Graduate Program Director	Education
Kerry Kretchmar	Associate Professor	Education
Colleen Pennell	Assistant Professor	Education
Rachel Stickles	Senior Lecturer in Education	Education
Amy Toson	Assistant Professor	Education
Kimberly White	Undergraduate Program Director Associate Professor	Education

Undergraduate Program in Education

The Teacher Education Program (TEP) at Carroll University develops professional educators who use their knowledge, skills, and dispositions to serve diverse communities of learners. Our program fosters in candidates a commitment to the understanding that all children, adolescents, and adults can learn, and we further encourage our candidates to dedicate themselves to be advocates for learning. Using developmentally appropriate and educationally effective approaches and guided by state and national standards, our candidates create environments that prepare learners to contribute to a democratic and equitable society in an increasingly interdependent and global world.

Throughout the Teacher Education Program, candidates develop the essential knowledge, skills, and dispositions as described in the Interstate Teacher Assessment and Support Consortium (InTASC) Model Core Teaching Standards (CCSSO, 2011). These standards are used as a resource when reflecting upon teaching practice, professional growth, and when constructing program assessments. Students are expected to demonstrate proficiency in the following teaching standards:

- Learner development
- Learning differences
- Learning environments
- Content knowledge
- Application of content
- Assessment
- Planning for instruction
- Instructional strategies
- Professional learning and ethical practice
- Leadership and collaboration

Furthermore, the School of Education and Human Services at Carroll University strives to model and facilitate the development of core values that will help candidates transform from their previous role as students in yesterday's classrooms to tomorrow's educational leaders. Four core values that are integral to preparing candidates to be excellent educators and collaborative colleagues include: Constructivist Perspective; Critical Consciousness; Educational Advocacy; and, Professional Integrity.

The Wisconsin Department of Public Instruction (DPI) approves the Teacher Education Program at Carroll. Because the DPI may revise its requirements for teacher licensing at any time, the Teacher Education Programs are subject to change. Students must maintain contact with their education advisor/mentor to learn about changes related to licensure requirements.

Admission and Retention in the Teacher Education Program (TEP)¹

The Wisconsin Department of Public Instruction requires all teacher education candidates in the state of Wisconsin to meet certain standards to be admitted and retained in a teacher education program (TEP) and to be admitted to a student teaching semester. Admission to the Carroll University TEP requires formal application by all students seeking licensure. Full-time Carroll undergraduate students are encouraged to apply in the spring of their sophomore year. All other students should apply as soon as they have completed 40 credits, including at least 12 credits in Carroll University courses. An appointment should be made with an Education advisor/mentor to obtain information regarding policies, procedures, and timelines for the application process. Students are cautioned that careful planning is necessary to avoid additional semesters or summer course work to finish the program.

¹ Admission, retention and student teaching requirements are summarized here. The Teacher Education Handbook, available from the Undergraduate Education Program Canvas page or the Education Office, contains all specific requirements.

Program Admission

To be eligible for program admission, students need to have completed at least 40 undergraduate credits (with at least 12 taken at Carroll) with a minimum grade point average of 2.75. Students will need 150 hours of interaction with children as well as a grade of C or better in English 170 and all education major and minor courses. Students submit their Phase I assessment to provide initial evidence of their development as a teacher and learner. Students are admitted to the TEP before enrolling in upper-level 300-level education courses. Students who leave the University for one year or more are required to reapply for admission to the TEP. The criteria for re-admission will be those in effect at the time of reapplication. Application deadlines are September 25 or January 25 each year.

Students not admitted to the Teacher Education Program on their first attempt are eligible to reapply. If students are denied on their second application, however, they may not reapply to the Teacher Education Program. Students who are unsuccessful in admission to, or continuation in, any part of the TEP have the right of appeal, using the grade appeal procedure contained in the Student Handbook. All students who are unsuccessful in the TEP have access to alternative career counseling through their Education advisor/mentor and through Career Services.

Program Guidelines

Students who plan to enter and complete the TEP are expected to demonstrate appropriate ethical and professional behavior throughout their university years, and particularly during their course work, fieldwork, and other professional experiences in education. A pattern of ethical lapses may affect admission to or retention in the TEP in respective stages. In their Phase I assessment, submitted upon application to enter the TEP, students are asked to demonstrate evidence of their existing commitments to the field of education.

This is accomplished, in part, by documenting high school and/or university experiences with children prior to entering the TEP. One hundred fifty clock hours of involvement are required. Experiences may include teaching, coaching, tutoring, or other forms of educational service to children or to schools. Volunteer and service work that is done to benefit children is also considered evidence of existing commitment. The TEP Handbook contains further information on this requirement and its documentation.

All students are expected to:

- Engage in formal or informal experiences, service work with children or in schools prior to applying to the TEP
- Present all required program application materials by established deadlines
- Submit satisfactory Phase I, Phase II and edTPA assessments, each with a maximum of one revision
- Successfully complete EDU 210 and EDU 311 or EDU 312 or EDU 353 . Students may only retake a practicum course once.
- Undergo a background and criminal history check in EDU 102 (or when receiving transfer credit for EDU 102), when applying to the Teacher Education Program, and when applying to Student Teach

- Demonstrate punctuality, dependability, and professional integrity in the completion of courses and course assignments, and in all field placements
- Follow university rules pertaining to social conduct, classroom conduct, and academic integrity
- Maintain ethical, professional, and respectful behavior in all contacts with school children, school personnel, university peers and faculty, and professional colleagues

Program Retention

The TEP requires that students demonstrate knowledge, skills and dispositions toward teaching. All Elementary Education major and Secondary Education major course work must be completed with a grade of C or better. In addition to a minimum overall GPA of 2.75, students must demonstrate professional behavior throughout their university years. Reference to these criteria can be found in the Teacher Education Handbook. The Education Department reserves the right to counsel students out of the program when appropriate.

Due to the complexities of both university and state requirements, students need to meet with an Education advisor/mentor very early in their university programs in order to develop a workable program plan of coursework. Carroll University coursework for the Teacher Education Program may be completed in four years only with very careful and early planning. Winter and/or summer attendance may be necessary. Because education students engage in significant amounts of fieldwork in conjunction with the coursework in education, the planning process is also extremely important to permit scheduling of fieldwork. Students need to maintain continual contact with an Education advisor/mentor in order to update their plans and to ensure that any changes in the DPI requirements are incorporated into the student's program.

Student Teaching Admission

Admission to the student teaching semester requires a grade of C or better in all Education major and minor courses and a minimum overall GPA of 3.0. Candidates must demonstrate their content knowledge by earning a GPA of 3.0 in coursework related to licensure area(s) or successfully complete the required Praxis II test(s) in the appropriate licensure area(s). Language candidates must successfully complete ACTFL to demonstrate oral proficiency. A list of major courses required for the 3.0 GPA (including designated support courses related to the major) can be found on the Undergraduate Education Program Information Canvas page. All Elementary Education majors seeking licensure are required to successfully complete the Foundations of Reading Test. Students applying for student teaching must submit their Phase II assessment. Application deadlines are November 15 or April 15 each year. Those students who are not accepted into student teaching have the option to complete a degree in Educational Studies; no teaching license is granted with this major.

The student teaching semester is a full-time, 18-20 week semester-length experience, which follows the semester calendar used by the school in which the student is placed. School calendars are frequently very different from the university calendar. Fall student teachers may begin as early as mid-August, and finish their placement in late January. These students will receive their degrees when student teaching is completed and participate in the commencement ceremony in May following the student teaching semester. Students who complete their student teaching during the spring semester are required to begin mid-January and teach into June to be endorsed for a Wisconsin teaching license. These students will participate in the commencement ceremony in May and receive their degrees when student teaching is completed.

One K-12 semester in the senior year must be reserved solely for student teaching. All required coursework for the major and minor must be completed prior to student teaching. No other courses may be taken during any part of the student teaching semester, unless approved by the Director of Clinical Experience. The Education Program Coordinator arranges student teaching assignments in schools within approximately a 30 mile radius of the campus. Students must provide their own transportation to the placement site(s). During the student teaching semester, candidates will complete the edTPA performance based assessment required for licensure in the state of Wisconsin. Candidates must submit an edTPA portfolio for external review and receive a passing score (which is set by the Wisconsin DPI) in order to qualify for licensure.

To obtain a Wisconsin teaching license, students must meet all applicable DPI requirements, including any new requirements, which may be introduced by the DPI while the student is enrolled in a Carroll University program. Any substitutions of courses

or variations in a student's program must be approved by the Registrar and by the Department Chair to assure eligibility for a teaching license. Students must complete all TEP requirements and all university degree requirements to receive any teaching license.

Majors and Minors

Major

Accounting Major

Program Advisors

Lisa Zajc, Visiting Lecturer of Accounting (lzajc@carrollu.edu)

The Accounting program provides superior educational opportunities that increase students' professional effectiveness and career success in complex business environments. Carroll University offers three options for students interested in preparing for a position of leadership and responsibility in accounting, whether it is in the public, private or governmental sectors of our economy.

Assurance of Learning Goals

1. **Demonstrate Global Awareness**

To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.

2. **Analyze Critically**

To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.

3. **Plan Strategically**

To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.

4. **Communicate Effectively**

To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Option 1: Accounting Major is designed for students wishing to complete an accounting major that will enable them, upon graduation, to obtain a position in a corporate or not-for-profit organization.

Option 2: Accounting major / CPA is designed for students interested in obtaining a Certified Public Accountant (CPA) designation. The CPA designation requires the completion of 150 credit hours. Students wishing to meet the requirements to "sit" for the CPA exam can do so in four years by following a specified curriculum. Through careful planning additional competencies can be gained that will allow the student to consider other certifications.

Option 3: Accounting major / CPA / MBA is designed for students wishing to major in accounting, obtain the CPA designation, and complete the MBA program within a four year period.

Transfer Students

Transfer students must complete 20 hours of accounting courses required for the major at Carroll University.

Students transferring in accounting courses required for the Accounting major must have completed the course within 4 years of the transfer date to Carroll University. The transfer date is defined as the start date of courses at Carroll.

Any 300 or 400 level accounting courses applied to the Accounting major requirements must have been completed within 5 years of completion of the undergraduate degree. Credits that do not meet this requirement must be approved by the program faculty.

Required Courses: (80 Credits)

- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 207 - Intermediate Accounting I 4 Hour(s)
- ACC 208 - Intermediate Accounting II 4 Hour(s)
- ACC 210 - Accounting Information Systems 2 Hour(s)
- ACC 305 - Advanced Accounting I 4 Hour(s)
- ACC 306 - Advanced Accounting II 4 Hour(s)
- ACC 310 - Advanced Cost Accounting and Budgeting 4 Hour(s)
- ACC 324 - Advanced Business Law 4 Hour(s)
- ACC 375 - Pre-internship Seminar 2 Hour(s)
- ACC 405 - Tax Accounting I 4 Hour(s)
- ACC 406 - Tax Accounting II 4 Hour(s)
- ACC 407 - Auditing 4 Hour(s)
- ACC 414 - Accounting Theory 4 Hour(s)
- ACC 480 - Internship in Accounting 1 - 12 Hour(s) *
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- CSC 220 - Information Systems 4 Hour(s)
- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)

Note:

* A minimum of 2 hours in ACC 480 is required for the major.

Recommended Courses for the CPA Exam

Recommended Courses for students who wish to sit for the CPA Exam

- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- MAT 130 - Elementary Functions 4 Hour(s)
- or Other higher level course of the same subject

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP 114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required support courses" within each major

Actuarial Science Major

John Symms Associate Professor of Mathematics

Broadly speaking, actuaries are professionals who analyze financial risks of future events. Trained in mathematics, statistics, economics and finance, actuaries quantify these risks by building and evaluating mathematical models. Such analyses are essential for the success of businesses in areas such as insurance, investment, and employee benefits. The Carroll University Actuarial Science Major gives students a broad and in-depth background in these core disciplines in preparation for entry into the actuarial science profession.

Carroll University has actuarial science internship programs with Northwestern Mutual, Assurant, Milliman, and Oliver-Wyman. Each year, representatives select interns from among Carroll University Actuarial Science majors for full-time (or part-time) paid internships. Selected student interns receive an authentic experience in the actuary profession while earning Carroll University credit. The full-time internships also include 100 hours of paid study time for the intern's next actuarial sciences exam.

Learning Outcomes for Actuarial Science

Students majoring in actuarial science are expected to:

1. Develop an understanding of the actuarial profession, what actuaries do, and how they do it.
2. Develop a knowledge base and proficiency in the core subjects needed for entry into the profession.
3. Develop an appreciation for the linkages between these core subjects.
4. Develop the critical and analytical thinking skills necessary for success in the profession.
5. Develop the communication skills that are essential in the business environment.
6. Develop the learning skills necessary for continued success in the profession.

Requirements

- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- ASC 301 - Financial Mathematics 4 Hour(s)
- ASC 302 - Probability 4 Hour(s)
- ASC 401 - Investment and Financial Markets 4 Hour(s)
- ASC 402 - Long-Term Actuarial Mathematics 4 Hour(s)

- BUS 304 - Principles of Finance 4 Hour(s)
- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 207 - Calculus III 4 Hour(s)
- MAT 208 - Linear Algebra 4 Hour(s)
- MAT 412 - Mathematical Statistics 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CSC 110 - Problem Solving through Programming 4 Hour(s)
- CSC 220 - Information Systems 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Animal Behavior Major

Susan E. Lewis Professor of Biology

Matthew H. Scheel Associate Professor of Psychology

Joshua Wolf Assistant Professor of Psychology

The interdisciplinary major in Animal Behavior supports the mission of Carroll University and the College of Arts and Sciences. The program is designed to give students a thorough knowledge of Animal Behavior within the domains of comparative psychology, behavioral ecology, and behavioral neuroscience. It will also enrich students' ability to apply scientific methods to understand the behavior of animals. The major will provide a foundation for those who wish to pursue graduate studies or professional careers in animal behavior or a related field, including veterinary medicine.

Learning Outcomes for Animal Behavior

As students progress through the animal behavior major, they will strengthen their abilities to:

1. Define and describe animal behavior-related terminology and concepts.

2. Understand experimental design.
3. Execute empirical procedures.
4. Demonstrate multiple effective communication skills.

Core Courses

- ANB 101 - The Science of Animal Behavior 4 Hour(s)
- ANB 101L - The Science of Animal Behavior Laboratory 0 Hour(s)
- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- BIO 417 - Behavioral Ecology 4 Hour(s)
- BIO 417L - Behavioral Ecology Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 240 - Biopsychology 4 Hour(s)
- PSY 314 - Learning and Animal Behavior 4 Hour(s)
- PSY 401 - Behavioral Neuroscience 4 Hour(s)
- PSY 414 - Research Methods in Behavior Analysis 2 Hour(s)
- ANB 380 - Internship in Animal Behavior 2 - 4 Hour(s)

Required Support Courses (4 Credits)

- ENG 199 - Reading and Writing in the Sciences 4 Hour(s)

Bachelor of Science Requirements

(Animal Behavior and Psychology majors only)

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Applied Physics Major

Greg Gabrielsen Distinguished Lecturer

Tate Wilson Senior Lecturer

Applied Physics majors may complete their degree at Carroll University, the University of Wisconsin-Platteville, or the University of Wisconsin-Milwaukee in accordance with the pre-engineering program. For details on this program see a member

of the Physics faculty or Department Chair. In either case, the Applied Physics major provides a strong foundation for further studies in physics, engineering, computers, law and medicine. Applied Physics majors can find jobs after graduation in a variety of technologically demanding careers, including engineering positions with local and national firms. Other graduates have chosen to work towards an advanced degree in Engineering.

Physics minors are encouraged to select additional supporting courses in the other sciences. The minor provides excellent preparation for a career in many fields including mathematics, chemistry, biology, medicine and physical therapy.

A certification program to teach physics at the secondary level, with a minor in physics, is available. Details of this program can be obtained from either the physics or the education faculty.

Learning Outcomes for the Applied Physics

Upon completion of the major and degree requirements the successful graduate will have:

1. a robust understanding of classical physics theories, including Newtonian mechanics, classical electrodynamics, thermodynamics, and 20th century physics, as well as some current topics in physics and engineering;
2. the ability to work independently to describe a problem within a physical system and create a plan to solve that problem;
3. the ability to apply physical theories to practical problems using both analytical and numerical techniques;
4. an understanding and appreciation of the interdisciplinary nature of physics, particularly in relation to chemistry and mathematics;
5. an understanding and appreciation of the historical development of physics and the role of physics in modern technology.
6. an understanding and appreciation of the basic physical principles underlying the universe.

Fees

Specific courses that require use of equipment and disposable supplies are assigned a course fee.

Core

- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s) **or**
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)

- PHY 301 - Electricity and Magnetism 4 Hour(s)
- PHY 301L - Electricity and Magnetism Laboratory 0 Hour(s)
- PHY 303 - Modern Physics 4 Hour(s)
- PHY 303L - Modern Physics Laboratory 0 Hour(s)
- PHY 304 - Classical Mechanics 4 Hour(s)
- PHY 320 - Thermodynamics 4 Hour(s)
- PHY 450 - Advanced Experimental Physics 4 Hour(s)

- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 207 - Calculus III 4 Hour(s)
- GEN 100 - Engineering Seminar I 1 Hour(s)
- GEN 101 - Engineering Seminar II 1 Hour(s)

Required Support Courses

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CSC 110 - Problem Solving through Programming 4 Hour(s)
- MAT 216 - Engineering Mathematics II 4 Hour(s) **or**
- MAT 309 - Differential Equations 4 Hour(s)
- 12 hours of electives in the Mathematics and Physics programs.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Applied Physics/Engineering Dual Degree Program Major

Greg Gabrielsen Distinguished Lecturer

Aimee Hubiak Lecturer in Engineering

Tate Wilson Senior Lecturer

Carroll University, the University of Wisconsin Platteville and the University of Wisconsin Milwaukee offer an inter-university program that allows students to earn two degrees: a B.S. in Applied Physics from Carroll University, and a B.S. in Engineering from the UW-Platteville or UW-Milwaukee. There is also an option to earn a B.S. in Applied Physics from Carroll University and an M.S. in Engineering from UW- Milwaukee. The Carroll University portion of these 3+2 programs consists of an intensive integrated experience in general engineering, physical science, applied mathematics, computation, and liberal studies. Upon

completing the 3 year program at Carroll University, students transfer to the UW-Platteville or UW-Milwaukee for 2 years to complete an engineering degree in any one of the following disciplines: Civil Engineering, Electrical Engineering, Engineering Physics, Industrial Engineering, Mechanical Engineering, or Materials Science. Students receive an Applied Physics degree from Carroll University after the successful completion of their first year at UWP or UWM.

Learning Outcomes for Applied Physics/Engineering

1. Prepare students to successfully complete an intensive 2-year engineering curriculum at UW-Platteville or UW-Milwaukee.
2. Introduce students to the engineering profession, including engineering problem solving, judgment and practice.
3. Begin development of student awareness of the impact of their work on society, locally, nationally and globally.

Core Courses

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CSC 110 - Problem Solving through Programming 4 Hour(s)
- GEN 105 - Engineering Graphics 4 Hour(s)
- GEN 320 - Advanced Circuits and Electronics 2 Hour(s)
- GEN 320L - Advanced Circuits and Electronics Laboratory 0 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 207 - Calculus III 4 Hour(s)
- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s)
- PHY 301 - Electricity and Magnetism 4 Hour(s)
- PHY 301L - Electricity and Magnetism Laboratory 0 Hour(s)
- PHY 303 - Modern Physics 4 Hour(s)
- PHY 303L - Modern Physics Laboratory 0 Hour(s)
- PHY 304 - Classical Mechanics 4 Hour(s)
- PHY 320 - Thermodynamics 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) *or higher*
- CSC 110 - Problem Solving through Programming 4 Hour(s) *or higher*

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Courses offered by the program

- GEN 100 - Engineering Seminar I 1 Hour(s)
- GEN 101 - Engineering Seminar II 1 Hour(s)
- GEN 105 - Engineering Graphics 4 Hour(s)
- GEN 210 - Statics and Dynamics 4 Hour(s)
- GEN 310 - Strengths of Materials 4 Hour(s)
- GEN 320 - Advanced Circuits and Electronics 2 Hour(s)
- GEN 320L - Advanced Circuits and Electronics Laboratory 0 Hour(s)
- GEN 380 - Engineering Internship 4 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- PHY 105 - Astronomy 4 Hour(s)
- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s)
- PHY 301 - Electricity and Magnetism 4 Hour(s)
- PHY 301L - Electricity and Magnetism Laboratory 0 Hour(s)
- PHY 303 - Modern Physics 4 Hour(s)
- PHY 303L - Modern Physics Laboratory 0 Hour(s)
- PHY 304 - Classical Mechanics 4 Hour(s)
- PHY 320 - Thermodynamics 4 Hour(s)
- PHY 380 - Engineering Internship 4 Hour(s)
- PHY 396 - Special Problems and Research 4 Hour(s)
- PHY 398 - Independent Study in Physics 1 - 4 Hour(s)
- PHY 450 - Advanced Experimental Physics 4 Hour(s)
- PHY 450L - Advanced Experimental Physics Laboratory 0 Hour(s)
- PHY 480 - Work-Oriented Experience 4 Hour(s)
- PHY 496 - Special Problems and Research 4 Hour(s)

Art Major

Amy A. Cropper Professor of Art

Peggy Thurston Farrell Associate Professor of Art

Phillip L. Krejcarek Professor of Art

Pacia Sallomi Professor of Art

The art major offers several directions for the student who has an interest and talent in the visual arts. Individualized advising helps the student choose a major with one of the following two emphases:

1. Fine arts which prepares students for careers in gallery/museum or arts administration, or for graduate work in studio art, commercial art, art therapy, or art history.
2. Art education which prepares students for K-12 teaching certification.

All majors are encouraged to attend art exhibition openings and/or workshops and field trips sponsored or approved by the art faculty. A Sophomore Review is required of all students who declare an Art Major by their Sophomore year. Transfer students and students who declare the major later are encouraged to participate in the Sophomore Review as Juniors. Art Majors are also required to complete a senior show and career portfolio to be approved by the art faculty.

Learning Outcomes for Art

Upon graduation, the art student will be able to demonstrate:

1. Mastery of skills in his/her chosen area of emphasis.
2. Familiarity with the history of art and the ability to discuss it within the context of their work.
3. Ability to write articulately about art.
4. Ability to present self and work professionally.
5. Ability to develop a cohesive body of work.

Core Courses

- ART 106 - Drawing and Composition 4 Hour(s)
- ART 107 - Beginning Design 2D and 3D 4 Hour(s)
- ART 200 - Early Modernism to Present-Art History Survey 4 Hour(s)
- ART 213 - Themes in Art History - Prehistory to Baroque 4 Hour(s)
- ART 206 - Intermediate Drawing 4 Hour(s)
- ART 490 - Capstone in Art 4 Hour(s)

Fine Arts Emphasis

Core Courses, Plus

- ART 201 - Painting I 4 Hour(s)
- ART 209 - Photography I 4 Hour(s) **or**
- ART 230 - Printmaking I 4 Hour(s)
- ART 220 - Sculpture I 4 Hour(s)
- ART 225 - Ceramics I 4 Hour(s) **or**
- ART 235 - Art Metals 4 Hour(s)
- ART 301 - Painting II 4 Hour(s) **or**
- ART 320 - Sculpture II 4 Hour(s) **or**

- ART 325 - Ceramics II 4 Hour(s) **or**
 - ART 330 - Printmaking II 4 Hour(s) **or**
 - ART 306 - Advanced and Life Drawing 4 Hour(s)
- One elective in ART, 4 credits

In Addition:

Fine Arts students interested in gallery/museum, art therapy, arts administration or commercial art should plan to take an internship in the field. Those interested in graduate work in studio art or art history should work to fit in extra studio or art history courses, respectively, as time allows.

Students planning to go on for Art Therapy should consider adding a Psychology Minor.

Double majoring or minoring in Business or Graphic Communication may also be of interest to Fine Art students.

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- ****International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.**
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Art Education Emphasis

Core Courses, Plus

- ART 209 - Photography I 4 Hour(s)
- ART 201 - Painting I 4 Hour(s)
- ART 211 - Gallery/Museum Experience 1 - 2 Hour(s)
- ART 220 - Sculpture I 4 Hour(s)
- ART 225 - Ceramics I 4 Hour(s)
- ART 230 - Printmaking I 4 Hour(s)
- ART 235 - Art Metals 4 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)

Bachelor Of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s)
- CSC 110 - Problem Solving through Programming 4 Hour(s)

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Biochemistry Major

Timothy C. Flewelen Lecturer

Tanya Katzman Lecturer

Kevin McMahon Chair of Department of Computational & Physical Sciences
Associate Professor

Joseph J. Piatt Professor

Michael D. Schuder Associate Professor

Gail M. Vojta Distinguished Lecturer

The Biochemistry Program is approved by the Committee on Professional Training of the American Chemical Society. This approval means that the program has the faculty, curriculum and instrumentation necessary to provide a quality education for undergraduate students.

Learning Outcomes for Biochemistry

Upon successful completion of the biochemistry major, students will:

1. Understand the basic definitions, concepts and relationships of chemistry.
2. Develop advanced skills in evaluating library searches for primary literature.
3. Understand fundamental laboratory analyses and safety protocols.
4. Perform quantitative and qualitative scientific analyses.
5. Understand the basic theory and use of modern instrumentation.
6. Use computers for chemical applications including technical writing, modeling, data collecting and processing, and database searching.
7. Prepare effective written scientific reports and oral presentations for professional audiences.
8. Work cooperatively in problem solving situations.
9. Understand the benefits and problems of modern chemistry for our society.

Recognizing the individuality of students and that chemistry can be a strong preparation for a variety of careers, the program offers two majors, chemistry and biochemistry, each with multiple emphases. Each of these majors offers courses in the basic areas of inorganic, organic, analytical, physical, and biochemistry, and can be supplemented by special opportunities such as

industrial internships and independent research. Modern scientific instrumentation is available and incorporated into all courses of the curriculum. Students are encouraged to consult with chemistry and biochemistry faculty about the various emphases and opportunities associated with each. Students must complete core courses, required support courses and the requirements for the emphasis.

Core Courses

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CHE 201 - Analytical Chemistry 4 Hour(s)
- CHE 201L - Analytical Chemistry Laboratory 0 Hour(s)
- CHE 203 - Organic Chemistry I 4 Hour(s)
- CHE 203L - Organic Chemistry I Laboratory 0 Hour(s)
- CHE 204 - Organic Chemistry II 4 Hour(s)
- CHE 204L - Organic Chemistry II Laboratory 0 Hour(s)
- CHE 308 - Biochemistry I 4 Hour(s)
- CHE 308L - Biochemistry I Laboratory 0 Hour(s)
- CHE 309 - Biochemistry II 4 Hour(s)
- CHE 401 - Advanced Chemical Analysis and Instrumentation 4 Hour(s)
- CHE 401L - Advanced Chemical Analysis and Instrumentation Laboratory 0 Hour(s)
- CHE 402 - Capstone - Modern Chemistry 2 Hour(s)
- CHE 402L - Capstone - Modern Chemistry Laboratory 0 Hour(s)

Required Support Courses

- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)
- BIO 220 - Genetics 4 Hour(s)
- BIO 220L - Genetics Laboratory 0 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)

- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s) **or**

- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s)

Choose one of the two emphases below:

Students must complete all core requirements and one of the emphases below.

- Liberal Arts Emphasis
- American Chemistry Society Approved Emphasis

Bachelor of Science Requirements

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) or
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Biology Major

Roberto Brenes Assistant Professor

Cynthia J. Horst Associate Professor

Todd D. Levine Senior Lecturer

Susan E. Lewis Professor

Christine L. Schneider Associate Professor

The Biology program is committed to transforming students into Biologists with enhanced skills in critical thinking and scientific reasoning. Students will learn in an environment that fosters creativity, independent thinking, and the application of knowledge in the biological sciences. When Biology students graduate from Carroll University they will have the confidence and skills necessary to be successful professionals in a dynamic global work force.

The biology major is designed to give students excellent preparation for graduate study or professional careers in life science areas such as molecular biology, physiology, field biology, research, teaching, dentistry, medicine, physical therapy, physician assistant, or veterinary medicine. All students have opportunities to develop excellent research skills throughout the core courses and upper-level biology electives, and many students collaborate with biology faculty on their current scholarly research.

Learning Outcomes for Biology

After completing the Biology major, students will:

- Understand foundational principles across ecological, organismal, and cellular/molecular fields in biology
- Be able to apply foundational knowledge to solve biological problems
- Interpret and generate scientific data (graphical or other formats)

- Develop hypotheses, design controlled experiments, and perform data analyses
- Understand the theoretical basis of fundamental laboratory techniques
- Communicate scientific information through written or oral formats
- Develop informational research skills by reading scientific textbooks, articles, and searching peer-reviewed databases

Students in the Biology program may be considered for graduation with program honors if they complete the following requirements: GPA, Biology courses: 3.6 or higher GPA, Overall: 3.4 or higher

Presentation of research project results at a regional or national meeting (e.g., BBB or a disciplinary society) or submission of a manuscript to a peer-reviewed journal Demonstrated commitment to the biology profession, broadly defined, above and beyond that of the average student. Evidence of such commitment will come from one or more of the following:

- Active membership in Beta Beta Beta, the Biological Honor Society.
- Active membership in a professional/scholarly organization related to biology (e.g., Ecological Society of America, American Society for Microbiology, etc.).
- Significant educational activity/outreach (e.g., tutoring, mentoring) at the university or other level.
- Consistent and sustained volunteer activity in an organization working on environmental, health, or other issues relevant to biology.
- Significant research activity separate from or above and beyond the capstone.
- Sustained activity in science-related policy/consulting in communication, journalism, government, public policy, business, industry or education.

The Biology faculty will review these requirements for all graduating seniors in the spring semester of each year.

Fees

Specific courses that require use of transportation, equipment or disposable supplies are assigned a course fee.

Core Courses

- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)
- BIO 220 - Genetics 4 Hour(s)
- BIO 220L - Genetics Laboratory 0 Hour(s)
- BIO 225 - Organismal Physiology 4 Hour(s)
- BIO 225L - Organismal Physiology Laboratory 0 Hour(s)
- BIO 395 - Professional Readiness in the Biological Sciences 2 Hour(s)
- BIO 495 - Integrating Biological Sciences 2 Hour(s)

Required Support Courses

(*Required for primary majors only)

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CHE 203 - Organic Chemistry I 4 Hour(s)

- CHE 203L - Organic Chemistry I Laboratory 0 Hour(s)

Four Elective Courses

Including at least one course from each area listed below:

Ecological

- BIO 333 - Ecology 4 Hour(s)
and
- BIO 333L - Ecology Laboratory 0 Hour(s)

- BIO 360 - Aquatic Ecology 4 Hour(s)
and
- BIO 360L - Aquatic Ecology Laboratory 0 Hour(s)

- BIO 417 - Behavioral Ecology 4 Hour(s)
and
- BIO 417L - Behavioral Ecology Laboratory 0 Hour(s)

- BIO 462 - Conservation Biology 4 Hour(s)

Organismal

- BIO 322 - Comparative Vertebrate Zoology 4 Hour(s)

- BIO 322L - Comparative Vertebrate Zoology Laboratory 0 Hour(s)

- BIO 350 - Endocrinology 4 Hour(s)

- ANP 403 - Human Physiology 4 Hour(s)
and
- ANP 403L - Human Physiology Laboratory 0 Hour(s)

Cellular/Molecular

- BIO 332 - Gene Manipulation and Genomics 4 Hour(s)
- BIO 332L - Gene Manipulation and Genomics Lab 0 Hour(s)
- BIO 412 - Microbiology 4 Hour(s)
- BIO 412L - Microbiology Laboratory 0 Hour(s)
- BIO 452 - Cell Biology 4 Hour(s)
- BIO 452L - Cell Biology Laboratory 0 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) or
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Business Administration Major

Program Advisor

Dennis Debrecht, Associate Professor (ddebrech@carrollu.edu)

A Carroll University Business Administration degree facilitates integration of knowledge, development of lifelong skills, career preparation, and formulation of enduring personal values. Students who major in Business Administration are prepared for a variety of fulfilling and challenging careers with domestic and international organizations. These organizations need articulate, well-reasoning, effective leaders to manage business environments that are dynamic and increasingly complex.

Assurance of Learning Goals

1. **Demonstrate Global Awareness**
To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.
2. **Analyze Critically**
To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.
3. **Plan Strategically**
To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.
4. **Communicate Effectively**
To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Required Courses (44 credits)

- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)

- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 496 - Business Policies 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP 114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are (NOTE: choose either CMP112 and CMP114 **OR** MAT140 or higher and CSC110 or higher):

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Business Economics Major

Program Advisor

Dennis Debrecht, Associate Professor (ddebrech@carrollu.edu)

Carol Tallarico, Professor (ctallari@carrollu.edu)

Students who major in Business Economics complete coursework in all of the functional areas of business and then specialize in economics by taking upper division courses in microeconomics, macroeconomics, money and banking, international economics, and econometrics. Students in this major will use quantitative skills and economic theory to analyze varying economic problems. Business Economics prepares students for careers in both the private and public sectors of our economy.

Assurance of Learning Goals

1. **Demonstrate Global Awareness**
To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.
2. **Analyze Critically**
To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.
3. **Plan Strategically**
To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.
4. **Communicate Effectively**
To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Required Courses (64 Credits)

- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 496 - Business Policies 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- ECO 306 - Microeconomic Theory 4 Hour(s)
- ECO 307 - Macroeconomic Theory 4 Hour(s)
- ECO 314 - Econometrics 4 Hour(s)
- ECO 343 - Money and Banking 4 Hour(s)
- ECO 363 - International Economics 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Chemistry Major

Timothy C. Flewelen Lecturer

Tanya Katzman Lecturer

Kevin McMahon Chair of Department of Computational & Physical Sciences
Associate Professor

Joseph J. Piatt Professor

Michael D. Schuder Associate Professor

Gail M. Vojta Distinguished Lecturer

The Chemistry Program is approved by the Committee on Professional Training of the American Chemical Society. This approval means that the program has the faculty, curriculum and instrumentation necessary to provide a quality education for undergraduate students.

Learning Outcomes for Chemistry

Upon successful completion of the chemistry major, students will:

1. Understand the basic definitions, concepts and relationships of chemistry.
2. Develop advanced skills in evaluating library searches for primary literature.
3. Understand fundamental laboratory analyses and safety protocols.
4. Perform quantitative and qualitative scientific analyses.
5. Understand the basic theory and use of modern instrumentation.
6. Use computers for chemical applications including technical writing, modeling, data collecting and processing, and database searching.
7. Prepare effective written scientific reports and oral presentations for professional audiences.
8. Work cooperatively in problem solving situations.
9. Understand the benefits and problems of modern chemistry for our society.

Recognizing the individuality of students and that chemistry can be a strong preparation for a variety of careers, the program offers two majors, chemistry and biochemistry, each with multiple emphases. Each of these majors offers courses in the basic areas of inorganic, organic, analytical, physical, and biochemistry, and can be supplemented by special opportunities such as industrial internships and independent research. Modern scientific instrumentation is available and incorporated into all courses of the curriculum. Students are encouraged to consult with chemistry and biochemistry faculty about the various emphases and opportunities associated with each. Students must complete core courses, required support courses and the requirements for the emphasis.

Core Courses

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CHE 201 - Analytical Chemistry 4 Hour(s)
- CHE 201L - Analytical Chemistry Laboratory 0 Hour(s)
- CHE 203 - Organic Chemistry I 4 Hour(s)
- CHE 203L - Organic Chemistry I Laboratory 0 Hour(s)
- CHE 204 - Organic Chemistry II 4 Hour(s)
- CHE 204L - Organic Chemistry II Laboratory 0 Hour(s)
- CHE 303 - Quantum Mechanics and Spectroscopy 4 Hour(s)
- CHE 303L - Quantum Mechanics and Spectroscopy Laboratory 0 Hour(s)
- CHE 304 - Thermodynamics and Kinetics 4 Hour(s)
- CHE 304L - Thermodynamics and Kinetics Laboratory 0 Hour(s)
- CHE 308 - Biochemistry I 4 Hour(s)
- CHE 308L - Biochemistry I Laboratory 0 Hour(s)
- CHE 401 - Advanced Chemical Analysis and Instrumentation 4 Hour(s)
- CHE 401L - Advanced Chemical Analysis and Instrumentation Laboratory 0 Hour(s)
- CHE 301 - Capstone - Modern Chemistry I 2 Hour(s)
- CHE 402 - Capstone - Modern Chemistry 2 Hour(s)
- CHE 402L - Capstone - Modern Chemistry Laboratory 0 Hour(s)

Required Support Courses:

- MAT 160 - Calculus I 4 Hour(s)
- MAT 160L - Calculus I - Laboratory 0 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 161L - Calculus II - Laboratory 0 Hour(s)
- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)

Emphasis

Students must complete all core requirements and one of the emphases below.

- Liberal Arts Emphasis
- American Chemistry Society Approved Emphasis
- Forensic Science Emphasis
- Forensic Science Professional Emphasis

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher

- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Communication BA Major

Program Faculty

Jon Gordon, Distinguished Lecturer in Communication (jgordon@carrollu.edu)

Jennifer Huck, Chair of Communication and Sociology (jhuck@carrollu.edu)

Rebecca Imes, Associate Professor of Communication (rimes@carrollu.edu)

Barbara King, Associate Professor of Communication (bking@carrollu.edu)

The Communication program offers a major in communication, as well as minors in liberal arts communication and secondary education speech communication. The goal of the program is to develop graduates who possess communication competence, in both theory and practice.

The communication major prepares students for careers in journalism, public relations, advertising, teaching, management, human resources and for advanced education in graduate school. The curriculum follows a sequence for student development. As freshmen, students learn the principles of, and have experiences in, various contexts of communication. They also become familiar with the methods of communication research (100-level courses). As sophomores, students become acquainted with specialized subject matters and hone skills in research, writing and critical thinking (200-level courses). As juniors, students engage in deeper exploration of theoretical and ethical perspectives (300-level courses). As seniors, students participate in advanced research and work-oriented experiences.

Learning Outcomes for Communication

Upon successful completion of major requirements, students are expected to demonstrate:

1. An understanding of the theories and principles of human communication that will facilitate their professional and personal effectiveness.
2. Skill in responsible and sensitive communication with diverse others.
3. The ability to conduct systematic inquiry skillfully.
4. The ability to develop and convey oral and written messages effectively.

Core Courses

- COM 101 - Principles of Communication 4 Hour(s)
- COM 150 - Research Methodology 4 Hour(s)

- COM 207 - Intercultural Communication 4 Hour(s)
- COM 499 - Senior Capstone Seminar 4 Hour(s)

Communication Major B.A. (40 Credit Hours)

Core courses plus four additional 4-credit 100- or 200-level courses in Communication

Two of the Following 300-Level Courses in Communication

- COM 317 - Communication Criticism 4 Hour(s)
- COM 319 - Communication Theory 4 Hour(s)
- COM 350 - Communication Law 4 Hour(s)
- COM 370 - Communication Technology and Society 4 Hour(s)

Completion of a Modern Language Through 202

For primary majors, this Modern Language requirement is in addition to the minimal Bachelor of Arts language requirement.

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- ****International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.**
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each Major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each Major.

Suggested Tracks

- Journalism Track
- Public Relations Track
- Relational Track

Communication BS Major

Program Faculty

Jon Gordon, Distinguished Lecturer in Communication (jgordon@carrollu.edu)

Jennifer Huck, Chair of Communication and Sociology (jhuck@carrollu.edu)

Rebecca Imes, Associate Professor of Communication (rimes@carrollu.edu)

Barbara King, Associate Professor of Communication (bking@carrollu.edu)

The Communication program offers a major in communication, as well as minors in liberal arts communication and secondary education speech communication. The goal of the program is to develop graduates who possess communication competence, in both theory and practice.

The communication major prepares students for careers in journalism, public relations, advertising, teaching, management, human resources and for advanced education in graduate school. The curriculum follows a sequence for student development. As freshmen, students learn the principles of, and have experiences in, various contexts of communication. They also become familiar with the methods of communication research (100-level courses). As sophomores, students become acquainted with specialized subject matters and hone skills in research, writing and critical thinking (200-level courses). As juniors, students engage in deeper exploration of theoretical and ethical perspectives (300-level courses). As seniors, students participate in advanced research and work-oriented experiences.

Learning Outcomes for Communication

Upon successful completion of major requirements, students are expected to demonstrate:

1. An understanding of the theories and principles of human communication that will facilitate their professional and personal effectiveness.
2. Skill in responsible and sensitive communication with diverse others.
3. The ability to conduct systematic inquiry skillfully.
4. The ability to develop and convey oral and written messages effectively.

Core Courses

- COM 101 - Principles of Communication 4 Hour(s)
 - COM 150 - Research Methodology 4 Hour(s)
 - COM 207 - Intercultural Communication 4 Hour(s)
 - COM 499 - Senior Capstone Seminar 4 Hour(s)
- Core courses plus four additional 4-credit 100- or 200-level courses in Communication**
- CMP 112 - Computational Thinking I 4 Hour(s)
 - CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

Two of the Following 300-Level Courses in Communication

- COM 317 - Communication Criticism 4 Hour(s)
- COM 319 - Communication Theory 4 Hour(s)
- COM 350 - Communication Law 4 Hour(s)
- COM 370 - Communication Technology and Society 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each Major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each Major.

Cross Cultural Development

For a complete list of CCD courses, [click here](#).

Suggested Tracks in the Communication Major

- Journalism Track
- Public Relations Track
- Relational Track

Computer Science and Information Technology Majors

Chenglie Hu **Professor**

Michael G. Konemann Associate Professor

Marie S. Schwerm **Senior Lecturer**

Mission Statement

In accordance with the mission of Carroll University, the Computer Science and IT Programs provide an excellent and state-of-the-art educational opportunity for students based on their individual skill sets, interests and career goals in the areas of modern software development, business problem solving, and IT problem solving and support. Both programs enable students to combine their theoretical and technical understanding with their broad-based liberal-arts education to think analytically and critically when designing and implementing software or IT solutions.

General

The Computer Science and IT programs are grounded in the liberal arts tradition, balance theory and practice, and focus on the problem-solving skills necessary for life-long learning in a field characterized by rapid change in technology. We succeed in our

mission by preparing our students through classroom work and appropriate external internships to secure fulfilling careers in the field of their choosing.

The world has been in an era of rapid technological advancement. The Internet, World Wide Web, and Mobile Computing have increasingly become critically important in corporate strategies, people's social lives and personal development. We recognize this by integrating the latest technologies into the curricula. The curricula are designed to emphasize problem solving, multiple programming paradigms, and higher order thought processes that will always be needed by corporate America under any business models.

Students interested in Gaming are encouraged also pursue a Video Game Studies minor, an interdisciplinary minor housed in the English program. This minor provides solid foundations in creativity and strategic design for game development, which complements the technical skills developed as a Computer Science major.

Computer science and information technology students at Carroll work on state-of-the-art computing facilities with the latest software application packages. They have access to Microsoft, Macintosh, and Unix/Linux computing platforms, and Oracle or Microsoft SQL Server Database Management Systems via the campus-wide network. There is equipment exclusively available for the use of computer science and information technology majors.

Learning Outcomes for Computer Science Major

Graduates of the Computer Science Program are able to:

1. Problem-solve (for business, scientific, Web, and recreational problems) through programming using multiple programming paradigms, enterprise resources, different software development frameworks, sound software design techniques and software engineering practices.
2. Successfully work in or be adapted to an organization in any business setting to meet technology challenges.
3. Further their academic pursuits and meet challenges in graduate schools by having the necessary body of theory that underpins the discipline of computer science.
4. Demonstrate an understanding of ethics as it applies to the discipline of computer science.
5. Work effectively as part of a team.

Learning Outcomes for Information Technology Major

Graduates of the Information Technology Program are able to:

1. Think creatively and analytically in technological problem-solving.
2. Problem-solve using productivity software and through computer programming.
3. Demonstrate an understanding of information system and technology evaluation and management.
4. Demonstrate an understanding of the application of new and developing technologies with sensitivity for security and ethical issues at global, societal, organizational, and personal levels.
5. Work effectively as part of a team.

Programs

- Computer Science Major
- Computer Science Minor
- Information Technology Major
- Information Technology Minor

Criminal Justice Major

Jennifer L. Huck	Chair of Department of Communication and Sociology Associate Professor of Criminal Justice
Kelly Pinter	Lecturer of Sociology and Criminal Justice

The criminal justice major is designed to meet the needs of students considering a career in the criminal justice system, including law enforcement, law and the courts and corrections. The major has an interdisciplinary liberal arts focus, emphasizing social science knowledge as well as basic communication and intellectual skills. We offer courses to help students understand the structure and philosophy of the American criminal justice system including the dimensions and causes of crime and delinquency, theories of crime prevention and control, the history, nature and theories of law enforcement, the basis and operation of criminal courts, and the philosophies and practices of various correctional institutions and programs, including corrections in the community.

Learning Outcomes for Criminal Justice

Students successfully completing the major are expected to:

1. Demonstrate an understanding of the structure, philosophy and administration of the criminal justice system and its components of law enforcement, courts, and corrections.
2. Describe and apply criminological theory to understand why individuals engage in crime, how criminals are created, and how policies connect to theoretical underpinnings.
3. Utilize and evaluate appropriate research and analytical methods in criminal justice.
4. Demonstrate the ability to develop and convey oral and written messages effectively in a professional manner.

Core Courses

- CRJ 103 - Introduction to Criminal Justice 4 Hour(s)
- CRJ 212 - Criminology 4 Hour(s)
- CRJ 499 - Capstone - What works in criminal justice policy 2 Hour(s)
- SOC 102 - Sociology of Social Problems 4 Hour(s)
- SOC 266 - Methods of Social Science Research 4 Hour(s)

Two Electives from the Following:

- CRJ 204 - Criminal Law 4 Hour(s)
- CRJ 213 - Race and Ethnicity Studies in Criminal Justice 4 Hour(s) **or**
- SOC 213 - Race and Ethnicity Studies in Sociology 4 Hour(s)

- CRJ 224 - Dynamics of Terrorism 4 Hour(s)
- CRJ 229 - Understanding Violence 4 Hour(s)
- CRJ 250 - Dissecting Truths of the Criminal Justice System 4 Hour(s)
- CRJ 252 - Law Enforcement and Justice 4 Hour(s)
- CRJ 291 - Special Topics in Criminal Justice 4 Hour(s)

Two Electives from the Following:

- CRJ 307 - Corrections, Policy and Justice 4 Hour(s)
- CRJ 319 - Juvenile Delinquency 4 Hour(s)
- CRJ 323 - Court processes, decisions, and ethics 4 Hour(s)
- CRJ 332 - White Collar and Environmental Crime 4 Hour(s)
- CRJ 340 - Victims and Victimology 4 Hour(s)
- CRJ 345 - Women, Gender, and Crime 4 Hour(s)
- CRJ 391 - Special Topics in Criminal Justice 4 Hour(s)
- CRJ 480 - Internship in Criminal Justice 2 or 4 Hour(s)

Required Support Courses

- IDS 200 - Career and Job Placement 2 Hour(s)
- POL 141 - Intro to American Politics 4 Hour(s)
- ENG 199 - Reading and Writing in the Sciences 4 Hour(s)

Note:

Bachelor requirements for this major may take SOC 114 instead of CMP 114.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
and
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
and
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Double Major in Business Administration and Music

Students interested in the field of music business may double-major in Business Administration and Music Liberal Arts and/or minor in Arts Management.

Core Business Administration Courses

- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 496 - Business Policies 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)

Core Music Courses

- MUS 105 - Class Piano I 1 Hour(s)
- MUS 106 - Class Piano II 1 Hour(s)
- MUS 111 - Music Theory I 3 Hour(s)
- MUS 112 - Music Theory II 3 Hour(s)
- MUS 113 - Musicianship I 1 Hour(s)
- MUS 114 - Musicianship II 1 Hour(s)
- MUS 260 - Music as Culture 4 Hour(s)
- MUS 303 - Conducting I 2 Hour(s)
- MUS 311 - Music History I - Classical Antiquity to the Classical Period 4 Hour(s)
- MUS 312 - Music History II - Nineteenth Century to the Present 4 Hour(s)
- MUS 471 - Senior Recital 0 Hour(s)
- MUS 499 - Music Capstone 2 Hour(s)

Applied Music Requirement (7 Credits)

Ensemble Requirement

8 semesters in

- MUS 185 - Concert Choir 0 - 1 Hour(s) **or**
- MUS 188 - Wind Ensemble 0 - 1 Hour(s) **or**
- MUS 191 - Chamber Orchestra 0 - 1 Hour(s)

Electives

Four credits of elective VPA coursework outside of music.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
 - CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) or
 - MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
 - CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
-
- ENG 170 - Writing Seminar 4 Hour(s)
 - Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Educational Studies Major

The Educational Studies major provides students with a foundation in preparation for possible education-related careers outside of the field of traditional K-12 classrooms. Through course selection and possible minors, students design a focus relative to their career interests. This non-licensure major is also appropriate for those who desire an educational foundation to supplement their other majors or professional fields of study.

Using education as a lens, this major facilitates the development of the 21st century skills necessary for success in a variety of professions. Through the program students will:

1. Explore and analyze issues faced by professionals working in various traditional and non-traditional educational settings.
2. Understand the cultural influences of family, class, religion, language, race/ethnicity, sexual orientation and school community on an individual's educational opportunity.
3. Identify personal and professional perspectives in multicultural and intercultural education.
4. Understand and implement the methodological approaches used in educational research.
5. Articulate the interrelationship between cognitive, social, emotional, and physical development.

The Educational Studies major provides students with an opportunity to gain a foundation in education. This major will also benefit students whose future careers require working with children, adolescents, young adults, and adults outside of a traditional K-12 setting.

This 34-credit major provides a marketable complement to many majors and minors across campus. Educational Studies affords students who are interested in education an opportunity to enroll in foundational coursework. Please note that students who complete this major will not meet the competencies necessary to be endorsed for a Wisconsin teaching license. In the event that students decide to pursue a major in Elementary Education or Secondary Education, coursework from the major is applicable.

Required Courses

- EDU 102 - Exploration in Education and Society 4 Hour(s)
 - EDU 202 - Intercultural Context in Education 4 Hour(s)
-
- EDU 203 - Educational Psychology 4 Hour(s) or
 - PSY 221 - Life-Span Psychology 4 Hour(s)
-
- EDU 395 - Design, Development and Delivery of Educational Programs 4 Hour(s)
 - EDU 400 - Capstone in Elementary Educational Studies 4 Hour(s)
 - EDU 405 - Educational Studies Internship 2 Hour(s)

Electives

(Select a minimum of 12 credits from the following):

- EDU 249 - Development, Observation, and Assessment 4 Hour(s)
- EDU 261 - Introduction to Inclusive Education 4 Hour(s)
- EDU 290 - Instructional Design for the Early Adolescent/Adolescent Learner 2 Hour(s)
- EDU 302 - Educational Advocacy 4 Hour(s)
- EDU 306 - Literacy in the Disciplines 4 Hour(s)

- EDU 323 - Literacy I: Early Childhood - Middle Childhood 4 Hour(s)
and
- EDU 326 - Mathematics in the Elementary/Middle School 4 Hour(s)

- EDU 360 - Teaching and Learning with English Language Learners 2 Hour(s)
- EDU 364 - Collaboration for Academic, Social and Career Development 4 Hour(s)

Note:

For BS/Math/Computational requirements, students may complete:

- CMP 112 - Computational Thinking I 4 Hour(s)
and
- MAT 104 - Foundations of Elementary Mathematics I 4 Hour(s)
and
- MAT 201 - Foundations of Elementary Mathematics II 4 Hour(s) **or**
- CMP 112 - Computational Thinking I 4 Hour(s)
and
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

Elementary Education Major

Department of Education

Courses in the Major

- EDU 102 - Exploration in Education and Society 4 Hour(s)
- EDU 202 - Intercultural Context in Education 4 Hour(s)
- EDU 203 - Educational Psychology 4 Hour(s)
- EDU 210 - Field Experience in Education I 1 Hour(s)
- EDU 249 - Development, Observation, and Assessment 4 Hour(s)
- EDU 261 - Introduction to Inclusive Education 4 Hour(s)
- EDU 302 - Educational Advocacy 4 Hour(s)
- EDU 311 - Field Experience in Education II 1 Hour(s)
- EDU 323 - Literacy I: Early Childhood - Middle Childhood 4 Hour(s)
- EDU 324 - Literacy II: Middle Childhood - Early Adolescence 4 Hour(s)
- EDU 325 - Science and Social Studies in the Elementary/Middle School 4 Hour(s)

- EDU 326 - Mathematics in the Elementary/Middle School 4 Hour(s)
- EDU 360 - Teaching and Learning with English Language Learners 2 Hour(s)
- EDU 408 - edTPA development 1 Hour(s)
- EDU 419 - Early Childhood/Elementary Student Teaching 6 Hour(s)
- EDU 420 - Early Childhood/Elementary Student Teaching 6 Hour(s)

Required Support Courses

- MAT 104 - Foundations of Elementary Mathematics I 4 Hour(s)
- MAT 201 - Foundations of Elementary Mathematics II 4 Hour(s)
- Must complete Physical/Health Education online module.
- Must complete Arts Integration online module.

Bachelor of Science for Elementary Education

The requirements for the Bachelor of Science Degree in Elementary Education are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- MAT 104 - Foundations of Elementary Mathematics I 4 Hour(s)
- MAT 201 - Foundations of Elementary Mathematics II 4 Hour(s)

Required Core and General Education Program Area Courses

*Students should consult with their Education advisor/mentor to select courses that meet the GE1 and GE 2 course sequence requirements, the Cross-Cultural Development course and Cross-Cultural Experience.

Special Education Dual Certification

The Teacher Education Program offers Cross Categorical Special Education (K-12) with two certification tracks: 1) Special Education/Elementary Education and 2) Special Education/Secondary Education. The program focuses on research-based models, including effective strategies and interventions to meet the academic, social and emotional needs of all students.

Emphasis in Dual Certification:

- EDU 234 - Language Development and Disorders of the Exceptional Child 4 Hour(s)
- EDU 312 - Field Experience-Adaptive Education 1 Hour(s)
- EDU 330 - Introduction to Diagnostic Assessment of Students with Exceptional Needs 4 Hour(s)
- EDU 364 - Collaboration for Academic, Social and Career Development 4 Hour(s)
- EDU 372 - Instructional Design and Methodology for Students with Mild to Moderate Learning Disabilities 4 Hour(s)
- EDU 373 - Instructional Design and Methodology for Students with Emotional/Behavioral Disabilities 4 Hour(s)
- EDU 423 - Special Education Student Teaching 6 Hour(s)

English as a Second Language Dual Licensure Program

The English as a Second Language (ESL) undergraduate program at Carroll University is an emphasis that can be added to an Elementary Education major or a Secondary Education major. Students who successfully complete the requirements for this emphasis and are endorsed for an initial teaching license through their grades K-9 (Elementary) or grades 4-12 (Secondary) program will be endorsed for the English as a Second Language #1395 as an additional license.

The ESL program is 20 credits in coursework and 7 credits in clinical experiences; of these 27 credits, candidates already complete 6 credits of this coursework and 7 credits of clinical experiences in their Elementary or Secondary Education major. Therefore, to complete the ESL program and be eligible for this additional license through the WI-DPI, students complete an additional 14 credits of coursework in addition to their Education major.

The following courses in the Elementary Education and Secondary Education majors apply to the ESL emphasis:

- EDU 202 - Intercultural Context in Education 4 Hour(s)
- EDU 311 - Field Experience in Education II 1 Hour(s)

Students complete the following coursework for the ESL emphasis:

- EDU 216 - Foundations of Multilingual Education 4 Hour(s)
- EDU 220 - Applied Linguistics for Educators 4 Hour(s)
- EDU 335 - Methods of Teaching and Learning with Emergent Bilingual Students 4 Hour(s)
- EDU 340 - Multiple Literacies and Multilingualism in Education 4 Hour(s)
- EDU 422 - Special Student Teaching Practicum 1 - 5 Hour(s)

NOTES:

*EDU 335 replaces the requirement for completing EDU 360 Teaching and Learning with English Language Learners (2 credits) in the Elementary Education or Secondary Education program

**Elementary Education majors adding the ESL emphasis complete EDU 422 as their second student teaching course rather than completing EDU 420; Secondary Education majors adding the ESL emphasis will complete EDU 422 as their second student teaching course rather than completing EDU 410

In order to successfully meet the standards for the English as a Second Language program and be eligible for licensure, students must meet the following requirements in addition to successfully completing the required coursework:

- Students meet the content knowledge assessment by earning a 3.0 in the coursework or passing the Praxis II exam in this content area
 - Students do not have to complete Praxis II exam if they earn a 3.0 in the ESL coursework
- Students must earn a C or better in each of the ESL courses
- Students must receive a satisfactory evaluation from their cooperating teacher in the ESL clinical placements

English and Writing Major

Timothy Galow Associate Professor of English and Writing

Lara Karpenko Associate Professor of English and Writing

B. J. Best Department Chair and Associate Professor of English and Writing

Barbara J. Kilgust Lecturer in English and Writing

We offer a combined major in English and Writing and minors in English, Creative Writing and Professional Writing. See sample four year plan.

The English and Writing major also serves as a valuable and practical double major with any program including the health sciences, social sciences, business, and education. See below our sample four-year plans for English and Writing with Business, Communication, Occupational Therapy, and Psychology.

English and Writing Major Goals:

1. To provide students with a body of knowledge about literature and other forms of representation that will allow them to recognize the interrelationship among ideas and provide them with the skills to be lifelong learners.
2. To teach students the critical and creative reading, writing and thinking skills that enable them to develop a personal value system and that will inform their understanding of their impact on the world around them.

Learning Outcomes for English and Writing

Students graduating with a degree in English and Writing will be able to

1. Develop strategies for originating and answering questions about literature.
2. Use language specific to the discourses of poetry, drama, fiction and nonfiction.
3. Analyze and respond critically to texts using research and bibliographic materials appropriate to the discipline.
4. Demonstrate the ability to synthesize and organize ideas.
5. Demonstrate knowledge of a writing process that includes reading, research, drafting, editing, and revising, and be able to analyze that process in their own writing and the writing of others.

Core Courses

British and American Literature Survey

Students must complete the following three survey courses. (12 credits)

- ENG 240 - British Literature I - Medieval to 1700 4 Hour(s)
- ENG 241 - British Literature II - 1700 to Contemporary 4 Hour(s)
- ENG 242 - American Literature - 1620 to Contemporary 4 Hour(s)

Visual Literacy

students must complete one of the following courses:

- ENG 214 - Global Film Theory and Criticism 4 Hour(s)
- ENG 288 - Images that Speak: Visual Culture before "talking films" 4 Hour(s)

Diversity/World Literature

students must complete one of the following courses: (4 credits)

- ENG 165 - Cultural Explorations of Race, Gender, and Class 4 Hour(s)
- ENG 210 - African American Literature 4 Hour(s)

- ENG 255 - Postcolonial Literature and Theory 4 Hour(s) **or**
- ENG 255H - Postcolonial Literature and Theory 4 Hour(s)

- ENG 262 - Introduction to Gender Studies 4 Hour(s)
- ENG 264 - American Indian Literature and Spirituality 4 Hour(s)

Professional English Requirement

Students must complete one of the following courses (4 credits):

- ENG 120 - Introduction to Professional Writing 4 Hour(s)
- ENG 199 - Reading and Writing in the Sciences 4 Hour(s)
- ENG 230 - Grant Writing 4 Hour(s)
- ENG 260 - Professional Writing in the Public Sphere 4 Hour(s)

Creative English Requirement

Students must complete one of the following courses (4 credits):

- ENG 205 - Interactive Fiction Writing: Stories and Games for Online Environments 4 Hour(s)
- ENG 206 - Fiction Writing 4 Hour(s)
- ENG 207 - Poetry Writing 4 Hour(s)
- ENG 333 - Advanced Creative Writing 4 Hour(s)
- ENG 350 - Literary Magazine Publishing 4 Hour(s)

Upper Division Literature Requirement

Students must complete two of the following courses (8 credits):

- ENG 300 - Great Authors I: Medieval to 1700 4 Hour(s)
- ENG 302 - Great Authors II: 1700 to Contemporary 4 Hour(s)
- ENG 303 - Milton and Moral Choice - His Age and Ours 4 Hour(s)
- ENG 304 - Shakespeare: From Stage to Screen 4 Hour(s)
- ENG 305 - Advanced Exposition and the Rhetorical Tradition 4 Hour(s)
- ENG 309 - Romantic and Victorian Literature 4 Hour(s)
- ENG 312 - Modernism 4 Hour(s)
- ENG 323 - Early Modern British Literature 4 Hour(s)

Senior capstone experience

- ENG 499 - English Major Capstone-Advanced Literature Seminar 4 Hour(s)

Modern Language Through 202

English and Writing primary majors are required to complete a Modern Language through 202

This Modern Language requirement is in addition to the minimal Bachelor of Arts language requirement.

Note:

Students majoring in English and Writing may not receive General Education(F1) credit for writing courses.

Required Support Courses

(Required for primary majors only)

Students seeking education certification must take the following courses;

- ENG 219 - Introduction to Linguistics 4 Hour(s)
- ENG 240 - British Literature I - Medieval to 1700 4 Hour(s) **or**
- ENG 304 - Shakespeare: From Stage to Screen 4 Hour(s)

- ENG 305 - Advanced Exposition and the Rhetorical Tradition 4 Hour(s)

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- ****International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.**
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Environmental Science Major

Kelly J. LaBlanc Senior Lecturer of Environmental Science

Joseph J. Piatt Professor of Chemistry and Environmental Science

The Environmental Science program offers a major and 3 related minors: Earth Science, Environmental Studies, and Natural Resource Management.

The environmental science major is an interdisciplinary science program which explores the interactions and relationships between human and natural systems. Through core classes, students integrate geologic, atmospheric, chemical and biological knowledge to address natural resource management and environmental issues. The environmental science program allows the student to tailor the curriculum to his or her professional goals.

Environmental science is a growing field which requires only a bachelor's degree in most job sectors. The environmental science major prepares students for careers in natural resource management, environmental protection, conservation, environmental consulting, government, and air, water, and soil quality.

The Environmental Science program helps manage a 63-acre field station. Located in the beautiful Kettle Moraine region just west of campus, the Greene Field Station features a trout stream, cold-water springs, extensive wetlands, and an on-site teaching and research facility. This site provides students with many opportunities for outdoor laboratory and research activities.

In addition, students in the program can earn a master's degree in environmental science via our 3+2 partnerships with Alaska Pacific University (APU) in Anchorage or with the School of Freshwater Sciences (SFS) at the University of Wisconsin-Milwaukee. Students who enroll at Carroll for three years and then transfer to APU or UW-Milwaukee earn both a bachelor's degree from Carroll University and a master's degree from APU or UW-Milwaukee.

Core Learning Outcomes

The Bachelors of Science degree in Environmental Science is designed so that students...

- Develop a scientific understanding of the biological, chemical, and physical aspects of environmental systems.
- Understand the interrelationships between human and environmental systems.
- Acquire laboratory and field skills for measuring environmental systems.
- Analyze environmental data and issues using quantitative and qualitative methods.
- Develop skills necessary to communicate scientific and resource management information.

Fees

Specific courses that require use of equipment and disposable supplies are assigned a course fee.

Core Requirements

- ENV 105 - Earth Science 4 Hour(s)
- ENV 105L - Earth Science Laboratory 0 Hour(s)
- ENV 150 - Climate Science 4 Hour(s)
- ENV 150L - Climate Science Laboratory 0 Hour(s)
- ENV 201 - Problem Solving in Environmental Systems 4 Hour(s)
- ENV 277 - Natural Resource Management 4 Hour(s)
- ENV 325 - Soils and Hydrology 4 Hour(s)
- ENV 367 - Geographic Information Systems 4 Hour(s)
- ENV 370 - Earth Surface Processes 4 Hour(s)
- ENV 370L - Earth Surface Processes Laboratory 0 Hour(s)
- ENV 455 - Watershed Management 4 Hour(s)

Required Supporting Courses

- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Graduate Degree in Freshwater Science

After completing three years of coursework at Carroll University, students transfer to the University of Wisconsin-Milwaukee and enter either the Professional or Thesis Track of the Master of Science program at the School of Freshwater Sciences (SFS). Coursework from UW-Milwaukee then transfers back to Carroll University to complete the Bachelor of Science degree in Environmental Science.

In preparation for this graduate program, students must have a minimum GPA of 3.30 and meet all of UW-Milwaukee and the SFS graduate admission requirements. Before transferring to SFS, students must complete a minimum of 110 credits for the Professional Track and 115 credits for the Thesis Track at Carroll University including the required core and support courses for the Environment Science major, the Pioneer Core Program, and the following additional course requirements:

Professional Track

- PHI 192 - Environmental Ethics 4 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)

Thesis Track

- PHI 192 - Environmental Ethics 4 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)

- MAT 160L - Calculus I - Laboratory 0 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 161L - Calculus II - Laboratory 0 Hour(s)
- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s)

Exercise Science Major

Exercise Science

Jessica M. Brown **Assistant Professor**

Brian P. Edlbeck **Clinical Assistant Professor**

Elaine Gonya **Lecturer**

David B. MacIntyre **Chair of Department of Human Movement Sciences
Clinical Associate Professor**

Jason T. Roe **Senior Lecturer**

Daniel Shackelford **Assistant Professor, Director of Master of Science in Exercise Physiology**

Timothy J. Suchomel **Assistant Professor, Director of Master of Science in Sport Physiology and Performance Coaching**

The mission of the Exercise Science Program at Carroll University is to develop entry-level professionals who can perform a range of health/fitness assessments and prescribe evidence-based interventions across various populations and abilities. Students will possess strong critical thinking, communication, and interpersonal skills appropriate for multiple settings. The program will prepare students for professional certification exams (ACSM, NSCA) and postgraduate study in exercise science or other related disciplines.

The exercise science program emphasizes the area's body of knowledge, research, and practice. Constant reinforcement of content through practical experiences occurs through observations, exposure to clients in academic courses, practicum experiences, and full-time internships. Graduates are qualified professionals who are liberally educated and possess the foundations for lifelong learning.

Individuals interested in health/fitness management are prepared to provide exercise and general wellness programs to apparently healthy individuals across the life span in safe and effective environments. Those interested in strength and conditioning are prepared to provide training programs to improve athletic performance across the life span. Students are also well prepared for advanced study in either graduate school or a clinical health field.

Learning Outcomes for Exercise Science

Upon completion of the exercise science program, the student:

- 1) Will be prepared for entry-level employment, relevant professional certifications or advanced degrees in health-related graduate programs.
- 2) Will be able to appropriately screen prospective clients and select, implement, and interpret health and fitness assessments across various populations and abilities.
- 3) Will be able to appropriately select, design, implement, and modify individualized health and fitness interventions for clients across various populations and abilities.
- 4) Will be able to educate, instruct, and motivate individuals in lifestyle modification in diverse settings across various populations and abilities.
- 5) Will possess strong communication and interpersonal skills to interact and collaborate effectively with professionals and peers.
- 6) Will be able to access, read and interpret scientific research and utilize the scientific inquiry process to collect and analyze appropriate data, interpret results and present conclusions in suitable oral, written, and technological formats.

Fees

Specific courses that require use of equipment and disposable supplies are assigned a course fee.

Core Courses

- ESC 100 - Introduction to Exercise Science 2 Hour(s)
- ESC 280 - Exercise Physiology 4 Hour(s)
- ESC 280L - Exercise Physiology Lab 0 Hour(s)
- ESC 300 - Nutrition and Health 4 Hour(s)
- ESC 320 - Exercise Testing and Prescription 4 Hour(s)
- ESC 320L - Exercise Testing & Prescription Lab 0 Hour(s)
- ESC 322 - Kinesiology 4 Hour(s)
- ESC 322L - Kinesiology Lab 0 Hour(s)
- ESC 390 - Strength & Conditioning Theory Across the Lifespan 4 Hour(s)
- ESC 390L - Strength and Conditioning Theory Across the Lifespan Lab 0 Hour(s)
- ESC 420 - Exercise Prescription for Special Populations 4 Hour(s)

Required Support Courses

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

Tracks

- Exercise Science Major - Undergraduate Exercise Science (UG-ESC) Option
- Exercise Science Major - Exercise Science-Master of Science in Exercise Physiology (ESC-MS EXP) Option
- Exercise Science Major - Exercise Science-Doctor of Physical Therapy (ESC-DPT) Option

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
AND
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
OR
- MAT 140 - Calculus and Its Applications 4 Hour(s)
AND
- CSC 110 - Problem Solving through Programming 4 Hour(s)
AND
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Finance Major

Program Advisor

Gregory Kuhlemeyer, Professor (gkuhleme@carrollu.edu)

The Finance major teaches managers how to make the best long-term decisions for their organizations. Students learn how to plan, manage, analyze, interpret and present information with the goal of maximizing the wealth of business owners. A finance major should be good with numbers, a team player, a creative problem solver and an effective communicator.

Assurance of Learning Goals

1. **Demonstrate Global Awareness**
To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.
2. **Analyze Critically**
To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.

3. **Plan Strategically**

To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.

4. **Communicate Effectively**

To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Required Courses (64 Credits)

- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 321 - Careers in Finance 2 Hour(s)
- BUS 341 - Applied Risk Management 4 Hour(s)
- BUS 342 - Investment Management 4 Hour(s)
- BUS 344 - Management of Financial Institutions 4 Hour(s)
- BUS 356 - Applied Financial Management 4 Hour(s)
- BUS 480 - Internship in Business 1 - 12 Hour(s)
- BUS 496 - Business Policies 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

Note:

A minimum of 2 hours in BUS 480 is required for the major.

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP 114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Global Studies Major

Dennis Debrecht Master of Business Administration Director
Associate Professor of Economics

Pascale Engelmajer Assistant Professor of Religious Studies

Lilly Goren Chair of Department of History, Political Science and Religious Studies
Professor of Political Science

Kevin Guilfooy Professor of Philosophy

Kimberly Redding Associate Professor of History

Patricia Rodda Assistant Professor of International Relations

Carol Tallarico Professor of Business Administration

Global studies is an interdisciplinary major that gives students a global perspective on political and economic problems, preparing them for careers in government, business and the nonprofit sector. Students are encouraged to become fluent in a modern foreign language, and the faculty works to arrange for students to spend a semester or year of study abroad.

Learning Outcomes for Global Studies

Upon completing the global studies major students should:

1. View global challenges from a perspective that integrates political, historical, economic, cultural and normative perspectives.
2. Be able to articulate the primary theoretical frameworks used to understand the global arena.
3. Understand the role of important state and non-state actors (international and non-governmental groups and organizations) in the global arena.
4. Demonstrate strong communications skills (reading, writing and listening) as well as analytical and critical skills that enable them to dissect and solve complex problems effectively.
5. Demonstrate the capacity to conduct independent research (identify and develop a research question, design research strategies based on the application of quantitative and/or qualitative methodologies, access and interpret information from print and electronic sources, write and present a critical and analytical argument).

Core Courses

- POL 103 - Politics of the World's Nations 4 Hour(s)
- POL 155 - Contemporary Global Politics 4 Hour(s)
- POL 266 - Methods of Social Science Research 4 Hour(s)
- POL 276 - Democracy, Globalization, and International Governance 4 Hour(s)
- POL 399 - Capstone in Political Science and Global Studies 4 Hour(s)

Elective Courses: (7 Courses or 28 Credits)

Students must complete at least one course from each track below. In addition, students select a track of concentration taking an additional four courses within that track. Of those four courses within that track, at least two courses must be at the 200 or 300 level and one course must be a 200 or 300 level course coming from History, Religious Studies or Philosophy.

- Regional Track
- Issues Track
- Economics Track

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
**International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Graphic Design Major

Daniel M. Becker Associate Professor of Graphic Design

Michael Mortensen Distinguished Lecturer of Graphic Design

Julie VonDerVellen Assistant Professor of Graphic Design

Preparing Professionals One Student at a Time

Graphic Design at Carroll University is an interdisciplinary major from the graphic communication, art, business, and computer science programs. This major is offered in conjunction with a required 120-hour internship and a capstone experience in which students independently create real world projects. The two minors offered within Graphic Design are aimed toward students who plan to major in other academic programs and acknowledge the integrated usefulness of Graphic Communication within their major area of study.

Learning Outcomes for Graphic Design

Upon graduation, the graphic design student will be able to:

1. Measurably demonstrate and apply a high competency working knowledge of various digital software applications and equipment.
2. Measurably demonstrate and apply industry-standard graphic design principles as they pertain to various digital media vehicles.
3. Apply learning outcome skill sets to produce digital media projects for the purpose of communication on behalf of client/audience objectives.
4. Create communication-based creative solutions to effectively broadcast specific messages that utilize typography, color, digital photography, images, digital video and print.
5. Utilizing historical documentation for reference, case studies for application, and examples of industry trends, students will apply their skill set to create messages that communicate across a variety of media.
6. Utilizing "real world" strategy, concept and application, students will implement their skill set of technology, understanding of design theory, identification with audience, and association with various delivery methods to produce graphic communication materials that best represent client goals.
7. Participate in the writing of creative briefs, apply the dynamics of communication practices, as well as investigate and understand the role of branding, marketing, and advertising.
8. Utilize website construction software and apply the appropriate skill set to develop online portfolios and client-based solutions.
9. Develop the ability to think critically, to problem solve, and to generate creative solutions.

The graphic design industry rapidly and continuously changes. This major has progressive offerings that teach students the use of myriad tools and methodologies needed to succeed in the industry for the 21st century. The graphic design, art, business, and computer science programs combine to provide students with the latest advancements, information, and methodologies.

Requirements

- ART 106 - Drawing and Composition 4 Hour(s)
- ART 107 - Beginning Design 2D and 3D 4 Hour(s)
- GRC 106 - Intro-Communication Technology 2 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 200 - Color and Typography 4 Hour(s)
- GRC 210 - History of Graphic Design 2 Hour(s)
- GRC 290 - Digital Design Studio 4 Hour(s)
- GRC 295 - 3-D Digital Design 4 Hour(s)
- GRC 320 - Intro to Multimedia Production 4 Hour(s)
- GRC 330 - Video and Motion Graphics 4 Hour(s)
- GRC 390 - Advanced Design Thinking 4 Hour(s)
- GRC 395 - Advanced Design Application 4 Hour(s)
- GRC 450 - Capstone-Projects for Graphic Communication Majors 4 Hour(s)
- GRC 480 - Internship-Graphic Communication 1 - 12 Hour(s)

Recommended Support Courses

- ART 209 - Photography I 4 Hour(s)
- ART 230 - Printmaking I 4 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 320 - Promotion Management 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
 - CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) or
 - MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
 - CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
-
- ENG 170 - Writing Seminar 4 Hour(s)
 - Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Health Care Administration Major

Program Advisor

Sarah Esveldt, Senior Lecturer (sesveldt@carrollu.edu)

Carroll University's Healthcare Administration major will prepare students to lead and manage in the contemporary health care market. The HCA program will prepare graduates for entry-level positions in the health care industry. Graduates will have an understanding of the health care delivery system, the factors that influence the health care system, the knowledge to apply health care management concepts, and the skills and abilities that are necessary to be successful in health care management and leadership roles.

Assurance of Learning Goals

1. **Demonstrate Global Awareness**
To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.
2. **Analyze Critically**
To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.
3. **Plan Strategically**
To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.
4. **Communicate Effectively**
To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Required Courses (46 Credits)

- ACC 205 - Financial Accounting 4 Hour(s)
- BUS 101 - Introduction to Business 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

- COM 290 - Intro to Health Communication 4 Hour(s)
- HCA 100 - Health Care Terminology 2 Hour(s)
- HCA 150 - Introduction to Health Care 4 Hour(s)
- HCA 200 - Health Care Economics and Policy 4 Hour(s)
- HCA 300 - Health Care Management 4 Hour(s)
- HCA 350 - Health Care Law and Ethics 4 Hour(s)
- HCA 400 - Health Care Financial Management 4 Hour(s)
- HCA 450 - Health Care Information Management 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP 114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Health Sciences Major - Completion

Lucinda Glaser Health and Medical Sciences Articulation and
Post Baccalaureate Programs Advisor

Carroll University offers an opportunity to earn a Bachelor of Science degree in Health Sciences through a unique articulated partnership with Waukesha County Technical College (WCTC).

This major provides depth and breadth within the basic and behavioral sciences to prepare students for the balanced integration of critical thinking, basic science knowledge application, and interpersonal skills necessary to provide the best care in a variety of health science disciplines. To meet the educational missions of the university and of the health science major, students study in a variety of academic and professional disciplines including anatomy and physiology, psychology, chemistry, physics and computational thinking.

Students with a completed associate of applied science degree from WCTC in Dental Hygiene or Surgical Technology are eligible to apply these credits for advanced standing toward a bachelor degree at Carroll. This B.S. degree provides an avenue for professional growth and advancement within each profession.

The remaining required courses will vary based on each individual's unique transcript, but will include the major core courses, Bachelor of Science requirements and elective credits. In order to graduate, students must earn a minimum of 128 credits, with the last 32 credits completed while enrolled at Carroll. One quarter of the major core courses must also be completed at Carroll.

Because students are transferring credits earned through an associate degree, **the health science completion major is not to be used as a stand-alone major.** Additional health related associate degrees from other technical colleges may also be considered for advanced standing. Please contact the Admissions Office for more information.

Major Core Courses (36 Credits)

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 221 - Life-Span Psychology 4 Hour(s)
- PSY 260 - Health Psychology 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Health Sciences Major - Diagnostic Medical Sonography Emphasis

Laura Sorenson Education Coordinator, School of Diagnostic Medical Sonography, Advocate Aurora Health

Michelle Cordio Program Director, School of Diagnostic Medical Sonography, University of Wisconsin Hospital and Clinics

Carroll University offers an opportunity to earn a Bachelor of Science degree in Health Sciences with an emphasis in Diagnostic Medical Sonography (DMS) through unique partnerships with Advocate Aurora Health in Milwaukee and the University of Wisconsin Hospital and Clinics (UWHC) in Madison. This B.S. degree affords students additional career choices over earning the certificate alone. Students receive the benefits of close, personal attention during their first years at Carroll followed by two years of clinical experiences in each hospital partner's School of Diagnostic Medical Sonography and associated clinical sites. Once admitted to the hospital phase of the program, students complete coursework in a specialized track (general/vascular or cardiac/vascular) and rotate through diverse clinical placements in a small cohort of classmates.

Diagnostic medical sonographers enjoy employment in varied settings, including hospitals, medical and diagnostic laboratories, diagnostic imaging centers and outpatient care centers. Additional opportunities are available in education, management and medical equipment sales related to sonography. Long-term employment prospects in this area are forecast to be excellent.

The DMS partnership program provides the approved education needed for students to be eligible to sit for their required national exam. Passing the exam is required in order to practice. While many students complete their registry exams while in the program, they must seek licensure (if required) individually. Currently, New Hampshire, New Mexico, North Dakota, and Oregon (NOT WI) are the only states with approved legislation mandating the licensure of sonographers.

For more information on DMS licensure: <https://www.ardms.org/discover-ardms/about-ardms/legislation/>

ARDMS certification: <https://www.ardms.org/discover-ardms/examinations-and-credentials/>

Entry into each hospitals' professional phase is highly competitive. Acceptance of students into the professional phase of the program is determined solely by the admissions committee at each hospital's independent School of Diagnostic Medical Sonography. **Meeting the minimum requirements does not guarantee acceptance into the hospital phase and there are typically more applicants than seats available in the program.** It is strongly recommended that students enrolled in this program have a parallel plan in the event clinical phase admission is not attained. This program requires students to attend class year-round. Courses completed in summer or winter terms will incur additional tuition fees. See the Admissions section of the catalog or contact the Health and Medical Sciences Advisor for more details.

Accepted students transitioning into the clinical phase of the program must adhere to all policies and maintain all progression standards outlined and provided by their cooperating hospital partner. See the College of Health Science Progression Standards section of the catalog for more details. Students in the partnership program for Diagnostic Medical Sonography must adhere to the policies and requirements outlined by both Carroll University and their hospital program.

Required Carroll University Courses

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- COM 207 - Intercultural Communication 4 Hour(s)
- ENG 170 - Writing Seminar 4 Hour(s)

- NRS 230 - Health Assessment 4 Hour(s)
- NRS 230L - Health Assessment Laboratory 0 Hour(s)
- NRS 236 - Human Pathophysiologic Responses 4 Hour(s)
- PHI 194 - Bioethics 4 Hour(s) **or**
- REL 220 - Health and Religion 4 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 or PBH 114 in place of CMP 114. BUS 114 or PBH 114 can satisfy the CMP 114 requirement for the major and CMP 112 and CMP 114 or BUS 114 or PBH 114 will satisfy the Bachelor of Science requirement.

Required Support Courses

- PSY 221 - Life-Span Psychology 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Health Sciences Major - Radiologic Technology Emphasis

Breanne Rosenbaum Program Supervisor
Advocate Aurora Health School of Radiologic Technology

Lucinda Glaser Health and Medical Sciences Articulation and
Post Baccalaureate Programs Advisor

Kyle Thine Program Director
 Froedtert School of Radiologic Technology

Diane Wingenter Program Director
 Ascension-St. Joseph School of Radiologic Technology

Carroll University offers an opportunity to earn a Bachelor of Science degree in Health Sciences with an emphasis in Radiologic Technology through unique partnerships with Ascension-St. Joseph, Advocate Aurora Health, and Froedtert Hospital. This B.S. degree affords students additional career choices over earning the certificate alone. Students receive the benefits of close, personal attention during their first years at Carroll followed by two years of clinical experiences in each hospital partner's School of Radiologic Technology and associated clinical sites.

Radiologic technologists enjoy employment in varied settings, including hospitals, medical and diagnostic laboratories, diagnostic imaging centers and outpatient care centers. Additional opportunities are available in education, management and medical equipment sales related to radiology. Long-term employment prospects in this area are forecast to be favorable.

The Rad Tech partnership program provides the approved education needed for students to be eligible to sit for their required national exam. Passing the exam is required in order to practice. While many students complete their registry exams while in the program, they must seek licensure (if required) individually. Wisconsin currently requires that any person who performs radiography or operates an X-Ray Machine or X-Ray Equipment, and is not exempt from the law, shall obtain a license or permit to perform radiography or limited scope radiographic procedures. <https://dps.wi.gov/Pages/Professions/RadiographerLicensed/Default.aspx>

For more information on RT licensure: <https://www.arrt.org/about-the-profession/state-licensing>

Entry into the professional phase is highly competitive. Acceptance into the professional phase of the program is determined solely by the admissions committee at each hospital partners' independent School of Radiologic Technology. **Meeting the minimum requirements does not guarantee acceptance into the hospital phase and there are typically more applicants that seats available in the program. It is strongly recommended that students enrolled in this program have a parallel plan in the event clinical phase admission is not attained.** The program requires students to attend class year-round. Courses completed during the summer and winter terms will incur additional tuition fees. See the Admissions section of the catalog or contact the Health and Medical Sciences Advisor for more details.

Accepted students transitioning into the clinical phase of the program must adhere to all policies and maintain all progression standards outlined and provided by their cooperating hospital partner. See the College of Health Science Progression Standards section of the catalog for more details. Students in the partnership program for Radiologic Technology must adhere to the policies and requirements outlined by both Carroll University and their hospital program.

Required Carroll University Courses

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- COM 207 - Intercultural Communication 4 Hour(s)
- ENG 170 - Writing Seminar 4 Hour(s)

- PHI 194 - Bioethics 4 Hour(s) **or**
- REL 220 - Health and Religion 4 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 or PBH 114 in place of CMP 114. BUS 114 or PBH 114 can satisfy the CMP 114 requirement for the major and CMP 112 and CMP 114 or BUS 114 or PBH 114 will satisfy the Bachelor of Science requirement.

Required Support Courses

- PSY 221 - Life-Span Psychology 4 Hour(s)
- PSY 260 - Health Psychology 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

History Major

Lilly Goren Chair of History, Political Science and Religious Studies

Scott Hendrix Associate Professor of History

Abigail M. Markwyn Professor of History

Kimberly A. Redding Associate Professor of History

The History Program offers a major in history and a minor in history. The History Program also offers a Carroll3 Plan, certification in Broadfields education (grades 7-12), and a pre-PT program that includes both a B.A. and all prerequisites for the graduate level Physical Therapy Program.

The nine-course history major serves students who not only seek an education in the liberal arts, but also realize the value of history for understanding themselves and their world. Because Carroll's history program prioritizes analytical, communicative and critical thinking skills, and because our courses often encourage interdisciplinary thinking, a history major prepares students for careers in public service, education, business, and management, while also offering a strong foundation for advanced study in library science, law and other disciplines.

Learning Outcomes for History

Upon successful completion of major requirements students will be able to:

1. Employ tools of historical analysis such as cause and effect, sequence and change over time to explain past experiences and developments.
2. Define a historical question and use appropriate methodologies to develop and evaluate possible answers.
3. Find evidence and evaluate primary and secondary sources to form sustainable conclusions in a well-argued paper.
4. Articulate and/or resolve conflicting interpretations and explain the changing nature of historical inquiry.
5. Communicate original, convincing ideas in well-organized oral and written formats.
6. Identify and explain central themes and problems of the Western World.
7. Identify and explain central themes and problems of a non-western culture.

Core Courses

One Course in Each Area

Three courses, with one course in each area, from the following:

A

- HIS 103 - Roots of the Western World 4 Hour(s)
- HIS 104 - Europe and the Modern World 4 Hour(s)
- HIS 109 - Kilts and Castles: The Middle Ages in the Movies 4 Hour(s)

B

- HIS 105 - America to 1877 4 Hour(s)
- HIS 106 - America since 1877 4 Hour(s)
- HIS 120 - Coming to America: Immigrants in U.S. History 4 Hour(s)
- HIS 122 - The End of the World: Foretelling Endtimes in American History 4 Hour(s)

C

- HIS 107 - Understanding the Premodern World 4 Hour(s)
- HIS 108 - Understanding Our Contemporary World 4 Hour(s)
- HIS 110 - History of Modern China 4 Hour(s)
- HIS 112 - Intro to Latin America History 4 Hour(s)

- HIS 121 - Comparative Genocide 4 Hour(s)

History 200, Workshop for Historians

- HIS 200 - Workshop for Historians 4 Hour(s)

Two Courses at the 200 Level from the Following:

- HIS 203 - The American Civil War 4 Hour(s)
- HIS 210 - Hist-American Foreign Relations 4 Hour(s)
- HIS 213 - Women in American History 4 Hour(s)
- HIS 215 - American Encounters: Natives, Africans, and Europeans in the Americas, 1350-1750 4 Hour(s)
- HIS 217 - Renaissance and Reformation Europe 4 Hour(s)
- HIS 218 - American Indian History 4 Hour(s)
- HIS 225H - Medieval Europe, China, and the Islamic Crescent 4 Hour(s)
- HIS 254 - Scholars, Saints, and other Medieval Ne'er Do Wells 4 Hour(s)
- HIS 257 - Europe's Civil War: 1900-1950 4 Hour(s)
- HIS 291 - Topics in History 2 - 4 Hour(s)
- HIS 298 - Independent Study in History 2 - 4 Hour(s)

Other Pre-approved Courses

Two Courses at the 300 Level from the Following:

- HIS 301 - The Forging of a Nation - The Colonial and Revolutionary Experience in North America 4 Hour(s)
- HIS 305 - Recent America 4 Hour(s)
- HIS 316 - Renaissance and Reformation Europe 4 Hour(s)
- HIS 318 - American Indian History 4 Hour(s)
- HIS 329 - The German Experience 4 Hour(s)
- HIS 391 - Topics in History 4 Hour(s)
- HIS 398 - Independent Study in History 2 - 4 Hour(s)

Note:

- All 300-level classes are research courses. Students should have some familiarity with research methodology and independent analysis and will produce a work of serious scholarship.
- At least one of the 4 courses chosen to fulfil III and IV above must be a 200 or 300-level course in Political Science, Philosophy, or Religious Studies.

History 499, Capstone: Senior Seminar for Historians

- HIS 499 - Capstone - Senior Seminar for Historians 4 Hour(s)

Teacher Certification

The department recommends that students majoring in history who seek certification to teach at the early adolescence through adolescence (formerly 6 - 12) level complete the requirements for the Broad Field Social Studies license. Please contact a history faculty member or education advisor regarding these requirements.

The State of Wisconsin requires content area examinations (Praxis II) in order to receive certification to teach at the early adolescence through adolescence level and to adequately demonstrate competence. For this reason, students seeking to teach history at this level are urged to take HIS 103, HIS 104, HIS 105, HIS 106 and HIS 108.

Pre-Physical Therapy 4 Year Plan

Courses Required to Complete a 4 Year Pre-Physical Therapy Program

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- ANP 402 - Human Anatomy 4 Hour(s)
- ANP 402L - Human Anatomy Laboratory 0 Hour(s)
- ANP 403 - Human Physiology 4 Hour(s)
- ANP 403L - Human Physiology Laboratory 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- **International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Management and Leadership Major

Program Advisor

Mary Ann Wisniewski, Professor (mwisniew@carrollu.edu)

A major in Management and Leadership prepares students to work in a variety of organizations, from small businesses, to nonprofit organizations, to multinational companies. Students will develop skills in setting compelling organizational goals and in leading others to effectively and efficiently use resources to achieve those goals. A degree in Management and Leadership can be applied to practically every industry and organization, including department managers, team managers, project managers, to CEOs.

Assurance of Learning Goals

1. **Demonstrate Global Awareness**
To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.
2. **Analyze Critically**
To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.
3. **Plan Strategically**
To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.
4. **Communicate Effectively**
To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Required Courses (64 hours)

- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- BUS 265 - Human Resource Management 4 Hour(s)
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 479 - Consulting Management 4 Hour(s)
- BUS 496 - Business Policies 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

- LEA 190 - Leadership and Personal Effectiveness 4 Hour(s)
- LEA 302 - Leadership Theory and Practice 4 Hour(s)
- LEA 499 - Leading Change 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP 114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor of Science Requirements

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) or
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Marine Sciences Major

Roberto Brenes Assistant Professor of Biology

Susan E. Lewis Professor of Biology

Carroll University offers access to majors in marine biology and oceanography via a cooperative arrangement with Hawaii Pacific University (HPU). The objective of the Marine Science Program at HPU is to help students gain a scientific understanding of the world's oceans and the life they contain, and a sense of appreciation for their beauty and fragility. Students are given a theoretical framework in the basic and applied sciences as well as ample opportunities to get hands-on experience conducting laboratory and field observations and experiments. Lecture and laboratory facilities are located on the Hawaii Loa Campus of Hawaii Pacific University. The campus is only a twenty-minute drive from Kaneohe Bay, a large natural embayment protected from the open ocean by the only true barrier reef in the Hawaiian Islands. This bay serves as one of the finest natural laboratories in the world for studying the marine sciences, and its protected nature allows HPU students to do field work in almost any type of weather.

Students desiring to major in marine biology or oceanography will spend two years at Carroll University taking basic science and liberal arts courses. After the two years, students transfer to Hawaii Pacific University and complete the requirements for a Marine Biology/Oceanography degree from Hawaii Pacific University.

Marine Biology or Oceanography Major

Science and Mathematics

Science and mathematics courses taken at Carroll University

- BIO 120 - General Biology I 4 Hour(s)
 - BIO 120L - General Biology I Laboratory 0 Hour(s)
 - BIO 125 - General Biology II 4 Hour(s)
 - BIO 125L - General Biology II Laboratory 0 Hour(s)
 - CHE 109 - Principles of Chemistry I 4 Hour(s)
 - CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
 - CHE 110 - Principles of Chemistry II 4 Hour(s)
 - CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
 - ENV 105 - Earth Science 4 Hour(s)
 - ENV 105L - Earth Science Laboratory 0 Hour(s)
 - CMP 112 - Computational Thinking I 4 Hour(s)
 - CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
 - MAT 160 - Calculus I 4 Hour(s)
 - MAT 161 - Calculus II 4 Hour(s)
-
- PHY 101 - Introductory Physics I 4 Hour(s)
 - PHY 101L - Introductory Physics Laboratory 0 Hour(s)
 - or
 - PHY 203 - General Physics I 4 Hour(s)
 - PHY 203L - General Physics I Laboratory 0 Hour(s)
-
- PHY 102 - Introductory Physics II 4 Hour(s)
 - PHY 102L - Introductory Physics Laboratory 0 Hour(s)
 - or
 - PHY 204 - General Physics II 4 Hour(s)
 - PHY 204L - General Physics II Laboratory 0 Hour(s)

Additional Courses

Additional Courses to fulfill HPUs General Education Curriculum (contact a Marine Biology advisor for a listing of all approved general education courses)

Communication Skills:

- ENG 170 - Writing Seminar 4 Hour(s)

Plus 1 Additional Course

Example:

- SPA 101 - Elementary Spanish I 4 Hour(s) or
- COM 101 - Principles of Communication 4 Hour(s)

Global Systems:

1 Course

Example:

- ECO 105 - History of Economic Thought 4 Hour(s) **or**
- HIS 104 - Europe and the Modern World 4 Hour(s)

Research and Epistemology:

- Requirements are completed at HPU

Values and Choices:

3 Courses

Examples:

- ENV 292 - Environmental Ethics 4 Hour(s)
- PHI 101 - Introduction to Philosophy 4 Hour(s)

World Cultures:

- CCS 100 - Cultural Seminar 4 Hour(s)

Plus 2 Additional Courses

Example:

- REL 102 - Introduction to the Hebrew Bible 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Sample Program at Carroll University

Freshman

Fall

- CCS 100 - Cultural Seminar 4 Hour(s)
- BIO 120 - General Biology I 4 Hour(s)
- COM 101 - Principles of Communication 4 Hour(s)
- MAT 130 - Elementary Functions 4 Hour(s)

Spring

- ENG 170 - Writing Seminar 4 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)

Sophomore

Fall

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- HIS 104 - Europe and the Modern World 4 Hour(s)

Spring

- CHE 110 - Principles of Chemistry II 4 Hour(s)
- ENV 105 - Earth Science 4 Hour(s) (Oceanography majors only)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- SOC 110 - Cultural Anthropology 4 Hour(s)

Sample Program for Marine Biology at Hawaii Pacific University

Summer at CU or HPU Before Junior Year

- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s) **or**
- HPU Physics I and HPU Physics II

Fall and Spring Junior Year

- Oceanographic Field Techniques
- Ecology

- General Oceanography I and II
- Argument, Research, Writing
- Marine Biology
- Cell and Molecular Biology
- Plus Elective

Senior Year

- Marine Ecology
- Evolutionary Genetics
- Plant Biology
- Marine Invertebrate Zoology
- Seminar: Marine Biology Seminar
- The World Problematique
- Fundamental Organic Chemistry
- Comparative Animal Physiology
- Biometry
- Plus Elective

Sample Program for Oceanography at Hawaii Pacific University

Summer at CU or HPU Before Junior Year

- PHY 203 - General Physics I 4 Hour(s)
- PHY 203L - General Physics I Laboratory 0 Hour(s)
- PHY 204 - General Physics II 4 Hour(s)
- PHY 204L - General Physics II Laboratory 0 Hour(s) **or**
- HPU Physics I and HPU Physics II

Fall and Spring Junior Year

- Oceanographic Field Techniques
- Ecology
- General Oceanography I and II
- Argument, Research, Writing
- Marine Biology
- Cell and Molecular Biology
- Plus Elective

Senior Year

- Marine Ecology
- Evolutionary Genetics
- Plant Biology
- Marine Invertebrate Zoology
- Seminar: Marine Biology Seminar

- The World Problematique
- Fundamental Organic Chemistry
- Comparative Animal Physiology
- Biometry
- Plus Elective

Marketing Major

Program Advisors:

Michael Levas, Associate Professor (mlevas@carrollu.edu)

Steve Brewer, Program Advisor (sbrewer@carrollu.edu)

A Carroll University Marketing major allows students to study all of the functional areas of business and then specialize further within the field of marketing. Students will take courses in business to business marketing, promotion management, and market research as well as additional elective courses in marketing. Students who major in Marketing are prepared for a variety of fulfilling and challenging careers with domestic and international organizations. These organizations need articulate, well-reasoning, effective leaders to help build their brands as they compete in a global environment.

Assurance of Learning Goals

1. **Demonstrate Global Awareness**
To meet this goal, students will describe similarities and differences among cultures; demonstrate knowledge of and sensitivity to cultural values and issues; and assess how global markets impact business decision-making.
2. **Analyze Critically**
To meet this goal, students will demonstrate knowledge of the decision-making process; evaluate information for credibility and appropriateness; create and use appropriate quantitative analyses to inform decision making; and understand and describe the consequences that result from specific business decisions.
3. **Plan Strategically**
To meet this goal, students will formulate an organizational vision, mission, goals, and values; develop a business strategy; and critically evaluate and adjust business strategies.
4. **Communicate Effectively**
To meet this goal, students will effectively communicate orally; effectively communicate through writing reports, memos, and papers; and effectively communicate at the interpersonal level by working in teams on varying projects.

Required Courses (60 Credits)

- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 206 - Managerial Accounting 2 Hour(s)
- BUS 290 - Principles of Business Law 2 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)

- BUS 320 - Promotion Management 4 Hour(s)
- BUS 327 - Business to Business Marketing 4 Hour(s)
- BUS 400 - Digital and Social Media Marketing 4 Hour(s)
- BUS 435 - Marketing Research 4 Hour(s)
- BUS 496 - Business Policies 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)

Choose 4 Credit Hours from the Following:

- BUS 360 - Career Development 4 Hour(s)
- BUS 480 - Internship in Business 1 - 12 Hour(s)
- COM 208 - Introduction to Public Relations 4 Hour(s)
- GRC 106 - Intro-Communication Technology 2 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 360 - Interactive Media 4 Hour(s)
- PSY 228 - Consumer Behavior 4 Hour(s)

Note:

CMP 112 and CMP 114 satisfy the Bachelor of Science requirement. Students can also take BUS 114 in place of CMP 114. BUS 114 will satisfy the CMP 114 requirement for the major and CMP 112 and BUS 114 satisfy the Bachelor of Science requirement.

Bachelor Of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each Major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each Major.

Mathematics BA Major

Heather Evans Senior Lecturer

David A. Feil **Associate Professor**

Darrel Johnson **Distinguished Lecturer**

Kristen A. Lampe **Professor**

Thomas St. George **Assistant Professor**

John C. Symms **Associate Professor**

The major in mathematics includes courses in pure and applied mathematics, offering a broad and in-depth foundation for students with diverse interests and backgrounds. All courses in the curriculum develop logical thinking, quantitative reasoning, and deductive analysis, making majors and minors highly attractive to graduate schools and employers in industry.

Combined with complementary course work, a mathematics major gives strong preparation for graduate study in an increasingly wide variety of disciplines. These include biostatistics, computer science, economics, forestry, genetics, meteorology, operations research, physics, psychology, pure and applied mathematics, sociology, and most engineering fields.

Career opportunities for those with a mathematics major are equally varied. These include positions in the fields of actuarial science, banking and financial services, communications, computer science, consulting, government, health services, management, public policy, research organizations, utilities, and transportation.

The major in mathematics is approved by the Wisconsin Department of Public Instruction for certification in mathematics.¹

Please see Academic and Program Policies in this catalog for information about how retroactive credits in calculus may be earned.

Learning Outcomes for Mathematics

Students majoring in mathematics are expected

1. To develop both skill at calculation and understanding of the theoretical underpinnings of calculus and algebra.
2. To acquire an ability to analyze, create, and communicate mathematical ideas and proofs.
3. To use logic and creativity to solve problems in a variety of mathematical disciplines.
4. To recognize that mathematical skills have applications in other settings, both academic and professional.

¹Students must normally maintain a 2.75 grade point average in the major to remain in good standing in the Teacher Education Program.

Courses in the Major

- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 206 - Transition to Adv Mathematics 4 Hour(s)
- MAT 207 - Calculus III 4 Hour(s)
- MAT 208 - Linear Algebra 4 Hour(s)
- MAT 320 - Abstract Algebra 4 Hour(s)
- MAT 380 - Internship in Mathematics 1 - 4 Hour(s)
- MAT 409 - Mathematical Analysis 4 Hour(s)
- MAT 450 - Mathematics Senior Capstone 4 Hour(s)

Two of the Following Six Courses:

- MAT 305 - Modern Geometry 4 Hour(s)
- MAT 309 - Differential Equations 4 Hour(s)
- MAT 312 - Theory of Probability & Statistics 4 Hour(s)
- MAT 324 - Numerical Analysis 4 Hour(s)
- MAT 350 - Mathematics Seminar 4 Hour(s)
- MAT 412 - Mathematical Statistics 4 Hour(s)

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- **International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Mathematics BS Major

Heather Evans Senior Lecturer

David A. Feil Associate Professor

Darrel Johnson Distinguished Lecturer

Kristen A. Lampe Professor

Thomas St. George Assistant Professor

John C. Symms Associate Professor

The major in mathematics includes courses in pure and applied mathematics, offering a broad and in-depth foundation for students with diverse interests and backgrounds. All courses in the curriculum develop logical thinking, quantitative reasoning, and deductive analysis, making majors and minors highly attractive to graduate schools and employers in industry.

Combined with complementary course work, a mathematics major gives strong preparation for graduate study in an increasingly wide variety of disciplines. These include biostatistics, computer science, economics, forestry, genetics, meteorology, operations research, physics, psychology, pure and applied mathematics, sociology, and most engineering fields.

Career opportunities for those with a mathematics major are equally varied. These include positions in the fields of actuarial science, banking and financial services, communications, computer science, consulting, government, health services, management, public policy, research organizations, utilities, and transportation.

The major in mathematics is approved by the Wisconsin Department of Public Instruction for certification in mathematics.¹

Please see Academic and Program Policies in this catalog for information about how retroactive credits in calculus may be earned.

Learning Outcomes for Mathematics

Students majoring in mathematics are expected

1. To develop both skill at calculation and understanding of the theoretical underpinnings of calculus and algebra.
2. To acquire an ability to analyze, create, and communicate mathematical ideas and proofs.
3. To use logic and creativity to solve problems in a variety of mathematical disciplines.
4. To recognize that mathematical skills have applications in other settings, both academic and professional.

¹Students must normally maintain a 2.75 grade point average in the major to remain in good standing in the Teacher Education Program.

Courses in the Major

- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 207 - Calculus III 4 Hour(s)
- MAT 206 - Transition to Adv Mathematics 4 Hour(s)
- MAT 208 - Linear Algebra 4 Hour(s)
- MAT 320 - Abstract Algebra 4 Hour(s)
- MAT 409 - Mathematical Analysis 4 Hour(s)
- MAT 450 - Mathematics Senior Capstone 4 Hour(s)

Three of the Following Five Courses:

- MAT 305 - Modern Geometry 4 Hour(s)
- MAT 309 - Differential Equations 4 Hour(s)
- MAT 312 - Theory of Probability & Statistics 4 Hour(s)
- MAT 324 - Numerical Analysis 4 Hour(s)
- MAT 412 - Mathematical Statistics 4 Hour(s)

Required Support Courses

(Required for primary majors only)

- CSC 110 - Problem Solving through Programming 4 Hour(s)

Note:

*To be certified by the DPI, students must take MAT 305 and MAT 312.

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Music Education Major

Darrell Brown Director of Instrumental Music

Leticia Grützmann Director of Choirs and Vocal Music, Assistant Professor of Music

Joel Matthys Assistant Professor of Music

The Music Program offers majors in music, music education and music therapy, as well as a minor in music.

The Bachelor of Music in Music Education prepares students for a career as a music educator and meets the requirements of the Wisconsin Department of Public Instruction for K-12 teacher licensure. Music education students prepare to a high level within the discipline of music, including performance, theory and history for teaching careers of distinction and leadership. The central philosophy of the degree is that music teachers can be most effective only by first becoming accomplished musicians themselves, capable of performing, conducting and analyzing at a sophisticated level.

Students are required to choose either an instrumental or choral emphasis, or both. All students also complete the coursework for General Music licensure. Two half-hour recitals are required in successive years, usually during the junior and senior year.

There is no incoming freshman entrance audition at Carroll. We accept all students as provisional music majors for their first year of study. At the end of the first year, music majors audition for the faculty to be elevated to full music major status. At the end of the sophomore year, the music faculty meet with every student to discuss career goals and progress.

Students must meet all requirements of the secondary education major including the required core (except EDU 249 , EDU 290 , EDU 302 , EDU 360), all General Education courses required by the Education Department, and state licensing requirements of the Teacher Education Program (TEP).

Core Music Courses

Applied Lessons (13 credits)

- MUS 105 - Class Piano I 1 Hour(s)
- MUS 106 - Class Piano II 1 Hour(s)
- MUS 107 - Class Piano III 1 Hour(s)
- MUS 108 - Class Piano IV 1 Hour(s)
- MUS 111 - Music Theory I 3 Hour(s)

- MUS 112 - Music Theory II 3 Hour(s)
- MUS 113 - Musicianship I 1 Hour(s)
- MUS 114 - Musicianship II 1 Hour(s)
- MUS 167 - Piano 0 - 2 Hour(s)
- MUS 211 - Music Theory III 3 Hour(s)
- MUS 212 - Music Theory IV 3 Hour(s)
- MUS 213 - Musicianship III 1 Hour(s)
- MUS 214 - Musicianship IV 1 Hour(s)
- MUS 260 - Music as Culture 4 Hour(s)
- MUS 303 - Conducting I 2 Hour(s)
- MUS 304 - Conducting II 2 Hour(s)
- MUS 307 - Practical Keyboard Harmony 1 Hour(s)
- MUS 311 - Music History I - Classical Antiquity to the Classical Period 4 Hour(s)
- MUS 312 - Music History II - Nineteenth Century to the Present 4 Hour(s)
- MUS 323 - Diction - German and English 1 Hour(s)
- MUS 324 - Diction - French and Italian 1 Hour(s)
- MUS 353 - Secondary Methods 2 Hour(s)
- MUS 357 - Choral Literature & Performance Practice 2 Hour(s)
- MUS 359 - Orff/Kodaly Methods 4 Hour(s)
- MUS 366 - Voice Pedagogy 2 Hour(s)
- MUS 470 - Junior Recital 0 Hour(s)

Education Courses

- EDU 102 - Exploration in Education and Society 4 Hour(s)
- EDU 202 - Intercultural Context in Education 4 Hour(s)
- EDU 203 - Educational Psychology 4 Hour(s)
- EDU 210 - Field Experience in Education I 1 Hour(s)
- EDU 261 - Introduction to Inclusive Education 4 Hour(s)
- EDU 306 - Literacy in the Disciplines 4 Hour(s)
- EDU 353 - Instruction and Assessment for Disciplinary Content 4 Hour(s)
- EDU 409 - Secondary and K-12 Student Teaching 6 Hour(s)
- EDU 410 - Secondary and K-12 Student Teaching 6 Hour(s)

Emphasis

- Music Education Major - Instrumental Emphasis
- Music Education Major - Choral Emphasis

Bachelor of Music Requirements

- Students in the Music Education program will meet the Bachelor of Music requirements.
- Degree requirements cannot be waived.
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- ENG 170 - Writing Seminar 4 Hour(s)

Music Major

Darrell Brown Director of Instrumental Music

Leticia Grutzmann Director of Choirs and Vocal Music, Assistant Professor of Music

Joel Matthys Assistant Professor of Music

The Music Program offers majors in music, music education and music therapy, as well as a minor in music.

Mission Statement and Program Goals

The music program at Carroll University seeks to provide instruction and high quality musical experiences to music majors and non-majors, and provide opportunities for Carroll and the larger community to experience high-caliber musical performances. We seek to develop graduates with exemplary musical skill and a strong body of knowledge suited to each individual's musical and/or career interests through rigorous training in musicianship and theory, private instruction on individual instruments and voice, and a diversity of courses in various genres, styles, and approaches to professional music-making.

Music Department Goals

- Foster conceptual understanding of musical components and processes
- Provide opportunities for continued practice in creating, interpreting, presenting, analyzing, and evaluating music
- Develop increased understanding of musical achievements from various analytical, historical, and cultural perspectives
- Develop enhanced capacities to integrate musical knowledge and skills
- Foster a set of capabilities for independent work in the music professions

Music Major

The music major is a liberal arts degree with a broad overview of the field of music, with flexibility for the student. Students will take applied lessons on their primary instrument and perform in university ensembles, as well as study music theory, musicianship, and music history, and choose multiple electives for further study. Students in the music major will complete a half-hour solo recital in their final semester of study.

For the optional performance emphasis, students spend more time in applied lessons and receive additional coursework in musicianship and music theory. Two one-hour recitals are required in successive years, usually during the junior and senior year. Acceptance into the performance emphasis requires a special audition. Performance juries are required of all music majors and minors each semester.

There is no incoming freshman entrance audition at Carroll. We accept all students as provisional music majors for their first year of study. At the end of the first year, students audition for the faculty to be elevated to full music major status. At the end of the sophomore year, the music faculty meet with every student to discuss career goals and progress.

Learning Outcomes for Music

Students studying music will develop:

- The ability to hear, identify, and work conceptually with the elements of music such as rhythm, melody, harmony, structure, timbre, and texture.
- The ability to read, realize, and understand musical notation.
- An understanding of compositional processes, aesthetic properties of style, and the ways these shape and are shaped by artistic and cultural forces.'
- An acquaintance with a wide selection of musical literature, the principal eras, genres, and cultural sources.
- The ability to develop and defend musical judgments.
- The ability to perform appropriate undergraduate level music with proficiency alone and in ensemble settings.
- Understanding of procedures for realizing a variety of musical styles.
- Knowledge and/or skills in one or more areas of music beyond basic musicianship appropriate to the individual's needs and interests.
- Understanding of and experience in one or more art forms other than music

Core Courses

Applied Lessons (13 credits)

- MUS 105 - Class Piano I 1 Hour(s)
- MUS 106 - Class Piano II 1 Hour(s)
- MUS 111 - Music Theory I 3 Hour(s)
- MUS 112 - Music Theory II 3 Hour(s)
- MUS 113 - Musicianship I 1 Hour(s)
- MUS 114 - Musicianship II 1 Hour(s)
- MUS 260 - Music as Culture 4 Hour(s)
- MUS 303 - Conducting I 2 Hour(s)
- MUS 311 - Music History I - Classical Antiquity to the Classical Period 4 Hour(s)
- MUS 312 - Music History II - Nineteenth Century to the Present 4 Hour(s)
- MUS 471 - Senior Recital 0 Hour(s)
- MUS 499 - Music Capstone 2 Hour(s)

Ensemble - 8 credits

- MUS 185 - Concert Choir 0 - 1 Hour(s)
or
- MUS 188 - Wind Ensemble 0 - 1 Hour(s)
or
- MUS 191 - Chamber Orchestra 0 - 1 Hour(s)

Applied Music (7 Credits)

4 Additional Credits of Visual and Performing Arts Coursework Outside of Music

Performance Emphasis

- MUS 211 - Music Theory III 3 Hour(s)

- MUS 212 - Music Theory IV 3 Hour(s)
- MUS 213 - Musicianship III 1 Hour(s)
- MUS 214 - Musicianship IV 1 Hour(s)
- MUS 470 - Junior Recital 0 Hour(s)

An Additional 8 Credits of Applied Music

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- ****International students who have English as their second language should contact the Registrar concerning the Modern Language requirement**
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Cross Cultural Development

For a complete list of CCD courses, [click here](#).

Music Therapy Major

Darrell Brown Director of Instrumental Music

Tamra Fricke Director of Music Therapy

Leticia Grützmann Director of Choirs and Vocal Music, Assistant Professor of Music

Joel Matthys Assistant Professor of Music

Music Therapy Mission

The Music Therapy Program at Carroll University seeks to develop individuals with musical sensitivity and performance proficiency, an understanding of the principles and goals of music therapy, and a complete clinical training in the techniques of therapeutic practice in preparation for the music therapy board certification exam and a career as a qualified Board Certified Music Therapist.

Music Therapy Goals

- **Preparation for Professional Practice** - Professional preparation requires the development of knowledge, skills, and abilities through education, supervision, and pre-professional experiences.
- **Musical Development** - Musical development is the acquisition of music knowledge, aesthetic sensitivity, and skills relevant to music therapy, and the application of those skills to clinical practice.
- **Personal Development of the Therapist** - Personal development involves becoming self-aware and actively seeking to further develop the self.
- **Clinical Experience** - Clinical experience involves observation and provision of music therapy services under the direct supervision of a certified music therapist. The student learns music therapy techniques to meet clients musically and clinically, demonstrating basic knowledge of assessment, treatment, documentation, and evaluation; communicates empathy and establishes therapeutic relationships; and demonstrates understanding of ethical principles and current standards of practice.

Progression Standards for Music Therapy Program

1. A cumulative GPA of 2.75 and satisfactory completion of the piano, guitar, and voice proficiency exams is required for admission to the professional phase (junior and senior years) of the program.
2. A student must maintain a cumulative university GPA and a semester GPA of 2.75 throughout the professional phase. A student who gets below a 2.75 cumulative and/or session GPA will be placed on academic probation for the following semester. To have the probationary status removed, a student must attain a 2.75 session GPA or higher in subsequent semesters.
3. If a student fails to attain a 2.75 session GPA, s/he will be dismissed from the program.
4. Grades of C or better are required in all music therapy (MTY designation) courses. A satisfactory (S) is required in all completed practica. If a grade below a C is achieved or an S is not achieved, the student may not progress to subsequent courses in the program until the course is successfully repeated.
5. A course may be repeated only one time. A student receiving a D, F, or U twice in music therapy courses (including practica) will be dismissed from the program.
6. When repeating a professional phase music therapy course, a student may be required to successfully complete ancillary learning experiences or clinical competencies/practica that validate theoretical knowledge.
7. The piano, guitar, and voice proficiency exams will only be administered once per semester. They may be repeated as often as necessary.

Reapplication Policy for Dismissed Music Therapy Students

The policy on reapplication defines the process by which students may seek readmission to the Music Therapy Program following a dismissal of the student from the program for failing to maintain good academic standing. Readmission candidates may apply for readmission to the program no sooner than one year and no later than three years from the date of the dismissal. Readmission candidates may exercise their reapplication option only once. Readmission candidates applying to the program must submit the materials required and shall be considered with all new applicants for admission. In addition, they must provide transcripts relating to any education experiences completed since leaving the program. A letter indicating why the readmission candidate believes s/he will succeed academically and technically in the program must accompany the application materials. Upon review of the materials, the program's admission selection committee may render the following decisions: 1) Approval of the request for readmission to the program, or 2) Denial of the request for readmission to the program.

Core Music Courses

- MUS 105 - Class Piano I 1 Hour(s)
- MUS 106 - Class Piano II 1 Hour(s)
- MUS 107 - Class Piano III 1 Hour(s)
- MUS 108 - Class Piano IV 1 Hour(s)
- MUS 111 - Music Theory I 3 Hour(s)
- MUS 112 - Music Theory II 3 Hour(s)
- MUS 113 - Musicianship I 1 Hour(s)
- MUS 114 - Musicianship II 1 Hour(s)
- MUS 169 - Voice 0 - 2 Hour(s)
- MUS 181 - Class Guitar 1 Hour(s)
- MUS 182 - Introduction to Rhythmic Movement 1 Hour(s)
- MUS 185 - Concert Choir 0 - 1 Hour(s)
- MUS 211 - Music Theory III 3 Hour(s)
- MUS 213 - Musicianship III 1 Hour(s)
- MUS 214 - Musicianship IV 1 Hour(s)
- MUS 215 - Songwriting in the Digital Age 1 Hour(s)
- MUS 220 - Class Guitar 2 1 Hour(s)
- MUS 260 - Music as Culture 4 Hour(s)
- MUS 303 - Conducting I 2 Hour(s)
- MUS 307 - Practical Keyboard Harmony 1 Hour(s)
- MUS 311 - Music History I - Classical Antiquity to the Classical Period 4 Hour(s)
- MUS 312 - Music History II - Nineteenth Century to the Present 4 Hour(s)
- Applied Lessons (8 credits)

Music Ensemble

Eight semesters in

- MUS 185 - Concert Choir 0 - 1 Hour(s)
- MUS 188 - Wind Ensemble 0 - 1 Hour(s)
- MUS 191 - Chamber Orchestra 0 - 1 Hour(s)

Core Music Therapy Courses

- MTY 101 - Introduction to Music Therapy 2 Hour(s)
- MTY 201 - Music Therapy Methods 2 Hour(s)
- MTY 251 - Psychology of Music 3 Hour(s)
- MTY 301 - Therapeutic Relationship in Music Therapy 2 Hour(s)
- MTY 304 - Influence of Music on Behavior 3 Hour(s)
- MTY 382 - Music Therapy Activities for Specific Populations 2 Hour(s)
- MTY 401 - Ethics and Cultural Awareness 2 Hour(s)
- MTY 402 - The Music Therapy Professional 1 Hour(s)

Required Support Courses

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)

- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 201 - Abnormal Psychology 4 Hour(s)
- PSY 221 - Life-Span Psychology 4 Hour(s)

Clinical Education Courses

- MTY 180 - Music Therapy Practicum 1 or 2 Hour(s) (must be taken 5 times)
- MTY 480 - Music Therapy Internship 1 Hour(s)

Bachelor of Music Therapy

The degree requirements for a Music Therapy major are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Musical Theatre Major

MUSICAL THEATRE PROGRAM

James Zager	Professor of Theatre & Dance
Joel Matthys	Assistant Professor of Music

Goal: To train Carroll students in the unique and demanding art of musical theatre, by creating students who become successful 'triple threats' displaying exceptional abilities in the areas of acting, singing and dance.

Learning Outcomes for Musical Theatre

Upon successful completion of the major requirements students will be able to:

1. Effectively practice the art of Musical Theatre through involvement in the creation and presentation of public performances in a variety of Musical Theatre styles and mediums.
2. Play physical actions in performance and apply vocal (breath, resonance, articulation) and physical (grounded presence, kinesthetic awareness, flexibility, tempo) technique to the creation of performance.
3. Sing with a free and authentic voice.
4. Dance proficiently in a variety of musical theatre styles.
5. Demonstrate knowledge of theatre and dance history/literature; analyze and interpret texts and performances both in writing and orally; and draw connections between theatrical practices and social contexts in both modern and pre-modern periods.
6. Illustrate an understanding of music theory and musicianship and apply it to their training.

7. Display the discipline, accountability, self-promotion and perseverance skills necessary for success in the Musical Theatre industry.

Musical Theatre Major (48 credits)

To fulfill the major requirements, students must take a total of 8 credits in MUS 169 and 4 credits in THE 100.

- DNC 205 - Jazz Dance I 2 Hour(s)
 - DNC 206 - Jazz Dance II 2 Hour(s)
 - DNC 211 - Theatre Dance 4 Hour(s)
 - MUS 169 - Voice 0 - 2 Hour(s)
 - MUS 105 - Class Piano I 1 Hour(s)
 - MUS 106 - Class Piano II 1 Hour(s)
 - MUS 111 - Music Theory I 3 Hour(s)
 - MUS 112 - Music Theory II 3 Hour(s)
 - MUS 113 - Musicianship I 1 Hour(s)
 - MUS 114 - Musicianship II 1 Hour(s)
 - THE 215 - Theatre History and Literature I 4 Hour(s)
- OR
- THE 216 - Theatre History and Literature II 4 Hour(s)
 - THE 100 - Theatre Participation 1 Hour(s)
 - THE 102 - Introduction to Performance 4 Hour(s)
 - THE 301 - Contemporary Acting Styles 4 Hour(s)

Elective Requirement (minimum of 6 credits chosen from):

- DNC 111 - Introduction to World Dance 4 Hour(s)
- DNC 201 - Concert Dance I 2 Hour(s)
- DNC 202 - Concert Dance II 2 Hour(s)
- MUS 182 - Introduction to Rhythmic Movement 1 Hour(s)
- MUS 215 - Songwriting in the Digital Age 1 Hour(s)
- THE 260 - Arts Management 4 Hour(s)
- THE 302 - Period Acting Styles 4 Hour(s)
- THE 307 - Directing for the Stage 4 Hour(s)
- THE 311 - Acting for the Camera 2 Hour(s)

Neurodiagnostic Technology

Neurodiagnostic Technology

Lucinda Glaser Health and Medical Sciences Articulation and Post Baccalaureate Programs Advisor Carroll University

Tabitha Althoff Program Director - Neurodiagnostic Technology Program, Advocate Aurora Health

Carroll University offers an opportunity to earn a Bachelor of Science degree in Neurodiagnostic Technology (NDT) through a unique partnership with Advocate Aurora Health in Milwaukee. The partnership program will lead to a Carroll Bachelor of Science degree in Neurodiagnostic Technology and prepare the student to sit for national certification through the American

Board of Registration of Electroencephalographic and Evoked Potential Technologists (ABRET). Graduates of the program will be prepared to sit for certification examination and credentialing in electroencephalogram (EEG), intraoperative neuromonitoring (IONM) and evoked potential (EP) studies. Students complete their first two years of the program at Carroll fulfilling NDT support courses and the Pioneer Core followed by two years of courses and clinical experiences at Aurora St. Luke's Medical Center with a small cohort of classmates. Advocate Aurora Health in partnership with Carroll University is currently seeking Commission on Accreditation of Allied Health Education Programs (CAAHEP) accreditation for the BS in Neurodiagnostic Technology (NDT) program.

Neurodiagnostic technology professionals prepare patients for procedures, obtain medical histories, record electrical potentials, calculate results, maintain equipment, and work with specific treatment interventions. They develop rapport with patients during the recording procedure, which can last from 20 minutes for a single nerve conduction study, to 8 hours for a sleep study, to multiple-day admission for long-term monitoring. Neurodiagnostic technology professionals understand neurophysiology and recognize normal and abnormal electrical activity. They act as eyes and ears for specially trained physicians who later review and interpret the data. Considerable individual initiative, reasoning skill, and sound judgment are required for electroneurodiagnostic professionals. The most common neurodiagnostic procedures are the electroencephalogram, long-term monitoring, intraoperative neuromonitoring, the polysomnogram, evoked potential studies, and nerve conduction studies. Long-term employment prospects in this area are forecast to be excellent.

The NDT partnership program provides the approved education needed for students to be eligible to sit for their required national exam. Passing the exam is required in order to practice. Professionals must pass ABRET board exams which are recognized worldwide. There are no state licensure requirements at this time for NDT. <https://www.abret.org/candidates/credentials/eeg/>

Entry into the hospitals' professional phase is competitive. Acceptance of students into the professional phase of the program is determined solely by the admissions committee at the hospital. **Meeting the minimum requirements does not guarantee acceptance into the hospital phase and there are typically more applicants than seats available in the program.** It is strongly recommended that students enrolled in this program have a parallel plan in the event clinical phase admission is not attained. See the Admissions section of the catalog or contact the Health and Medical Sciences Advisor for more details.

Accepted students transitioning into the clinical phase of the program must adhere to all policies and maintain all progression standards outlined and provided by their cooperating hospital partner. See the Progression Standards section of the catalog for more details. Students in the partnership program for Neurodiagnostic Technology must adhere to the policies and requirements outlined by both Carroll University and their hospital program.

Required Carroll University Courses

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- COM 207 - Intercultural Communication 4 Hour(s)
- NDT 275 - Neuroanatomy and Physiology 4 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)

Bachelor of Science

The requirements for a Bachelor of Science degree are:

CMP 112 and CMP 114

OR

MAT 140 or higher and CSC 110 or higher;

ENG 170

Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required support courses" within each major.

Nursing Major

Department of Nursing

Clinical Nursing Core Requirements

All applicants must be in good health and free from communicable diseases and be able to carry out the functions of a professional nurse as specified in the Technical Standards. Students must maintain current immunizations and CPR certification. Additional tests may be required by specific agencies in which the student has clinical experiences. The program will notify students when such tests are required. Students who fail to comply will not be allowed in clinical. All costs associated with clinical requirements is the responsibility of the student.

Nursing courses begin during the freshman year allowing early participation in clinical service learning activities. Students will have diverse service learning experiences in a variety of clinical settings.

The number of hours spent in laboratory (including clinical) experience varies from semester to semester and is based on one (1) semester credit being equal to three (3) hours of clinical per week.

Approximate time commitment for clinical courses:

200 level - 6 hours/week for one semester

300 level Junior year - 15 hours/week during one semester

400 level Senior year - 15 hours/week during both semesters

Policy Statement on Student Attendance at Clinical

The university reserves the right to require a student to repeat all or any part of a clinical course when, in the student evaluation by the course instructor, the time that the student has been absent from clinical/practicum makes it impossible to evaluate the student's level of achieving the course objectives. Make up time is not guaranteed and is dependent upon faculty and clinical availability. The student is responsible for any costs involved in repeating the course and/or making up time lost.

Learning and Study Resources

Learning resource centers for student learning and testing are available. The nursing laboratory provides space and resources for students to practice and test their mastery of psychomotor skills used in patient care. The Carroll Library Learning Commons has a range of resources to support the nursing curriculum. The Walter Young Center provides personal counseling and the Study Center offers students opportunities to strengthen academic skills. All students should work closely with their advisor in planning their progression in the program.

Fees

Undergraduate tuition and other fees apply to nursing students. A program fee of \$750.00 per year is also assessed for proficiency testing, disposable supplies, and equipment maintenance.

Licensure Examination

Upon completion of all program requirements, the graduate is eligible to sit for the National Council Licensure Examination for Registered Nurses (NCLEX-RN). A graduate must pass this examination to be licensed and practice as a registered nurse (RN).

Although, no nursing program can guarantee success on the NCLEX-RN examination, the Carroll nursing curriculum integrates preparation for the licensure exam through-out the nursing program.

Bachelor of Science in Nursing Major (57 Credits)

Nursing courses build on the knowledge gained from liberal arts background in humanities, fine arts, social sciences, and natural sciences. The overall program outcome is to prepare professional nurses at the generalist level, with a grounding in the liberal arts, in addition to professional career preparation.

Preparing students to function as:

1. Providers of direct and indirect care to individuals, groups, communities, and populations.
2. Designers, managers, and coordinators of care.
3. Members of a profession.

Courses in the Major

- NRS 100 - Health Care and Nursing 4 Hour(s)
- NRS 100L - Health Care and Nursing Laboratory 0 Hour(s)
- NRS 230 - Health Assessment 4 Hour(s)
- NRS 230L - Health Assessment Laboratory 0 Hour(s)
- NRS 233 - Foundations of Nursing Practice 4 Hour(s)
- NRS 234 - Foundations - Practicum 2 Hour(s)
- NRS 236 - Human Pathophysiologic Responses 4 Hour(s)
- NRS 300 - Critical Inquiry in Nursing Research 2 Hour(s)
- NRS 300H - Critical Inquiry in Nursing Research Honors 2 Hour(s)
- NRS 301 - Pharmacology 3 Hour(s)
- NRS 310 - Mental Health Nursing Care 3 Hour(s)
- NRS 316 - Introduction to Medical Surgical Nursing 4 Hour(s)
- NRS 317 - Medical Surgical Nursing Practicum 5 Hour(s)
- NRS 322 - Family-Centered Maternal Child Care 4 Hour(s)
- NRS 415 - Community Health Practicum 2 Hour(s)

- NRS 416 - Community Health Nursing Care 3 Hour(s)
- NRS 417 - Advanced Medical Surgical Nursing 3 Hour(s)
- NRS 419 - Advanced Medical Surgical Practicum 5 Hour(s)
- NRS 429 - Health Policy and Administration 3 Hour(s)
- NRS 431 - Capstone 4 Hour(s)
- NRS 432 - Professional Practice Preparation 1 Hour(s)

Note:

Nursing electives in specialty clinical areas may be offered occasionally. If these courses are elected the nursing student may accomplish a nursing major of 62 or 66 credits.

Required Support Courses

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- BIO 212 - Microbiology for the Health Sciences 4 Hour(s)
- BIO 212L - Microbiology for the Health Sciences Laboratory 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 221 - Life-Span Psychology 4 Hour(s)

Bachelor of Science in Nursing Requirement

- Students must take CMP 112 and CMP 114
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Philosophy, Political Science and Economics Major

Dennis Debrecht Associate Professor of Economics

Lilly Goren Professor of Political Science

Kevin Guilfooy Associate Professor of Philosophy

Max Rondolino Assistant Professor of Philosophy

The philosophy, political science and economics (PPE) major provides students with the opportunity to form an interdisciplinary integrated knowledge that combines foundational understanding of each discipline. In order to understand complex social

phenomena one must approach them from several complementary disciplinary directions and analytical frameworks. The study of philosophy equips students with broad knowledge of the ideas and theories that shape society and culture, and the intellectual tools needed for ethical reflection. The study of political science acquaints students with the political structures that govern society and introduces the complexities involved in the choices political systems and regimes regularly make. Knowledge of economics is vital for explaining and understanding the social world. There is at least some truth to Marx's claim that all social phenomena are at their core economic. All three disciplines equip students with meta-tools such as the ability to think rigorously and logically, but each employs different methodologies. This is what makes the PPE major genuinely interdisciplinary: PPE students explore contemporary questions about distributive justice; the ethical significance of the competitive market economy; and the dynamic relationships between the economic, political and legal orders by employing and integrating the tools methods and perspectives of each discipline. The PPE major provides career oriented liberal arts students with the Integrated Knowledge and Lifelong Skills necessary for success and leadership in a rapidly evolving world.

Learning Outcomes for PPE

1. Students will be able to identify and critically discuss in written and oral fashion government structures and decision making processes.
2. Students will be able to identify and critically discuss in written and oral fashion key concepts, figures, movements, and ideas in philosophy.
3. Students will be able to identify and critically discuss in written and oral fashion the function of market forces and the larger social issues related to economic forces and decision making.
4. Students will be able to identify and critically discuss in written and oral fashion the integration of the fundamental concepts and ideas of Philosophy, Political Science, and Economics and the way these ideas shape fundamental societal issues of justice, citizenship, social order, wealth and poverty, globalization, freedom, et. al.
5. Students will be able to identify, analyze, and respond critically to relevant issues using appropriate research and bibliographic materials and facilities commonly employed in the fields of Philosophy, Political Science, and Economics.

Requirements

All Philosophy, Political Science and Economics majors must take:

Core Courses

- PHI 210 - Philosophy, Politics, and Economics 4 Hour(s)

Philosophy

- PHI 101 - Introduction to Philosophy 4 Hour(s)

One 200 level course in Philosophy (4 hours)

One 300 level course in Philosophy (4 hours)

Political Science

One 100 level course in Political Science (4 hours)

One 200 level course in Political Science (4 hours)

One 300 level course in Political Science

Economics

- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)

One 300 level course in Economics (4 hours)

One additional 300 level course in Philosophy, Political Science, or Economics (4 hours)

Bachelor of Science Requirements

The requirements for a Bachelor of Science are:

- CSC 110 - Problem Solving through Programming 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- MAT 140 - Calculus and Its Applications 4 Hour(s)
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Photography Major

Students seeking an in-depth study of photography as a fine art may choose the photography major.

All majors are encouraged to attend art exhibition openings and/or workshops and field trips sponsored or approved by the Department of Visual and Performing Arts. All majors are required to create a sophomore portfolio and have a senior show and portfolio to be approved by the art faculty.

Learning Outcomes for Photography

Upon graduation, the photography student will be able to demonstrate:

1. Proficiency in the use of a variety of cameras, including digital and video.
2. Mastery in the creation and analysis of photographic images.

3. Mastery in the development of film and printing and in the presentation of the final image.
4. Knowledge of the history of photography.
5. Proficiency in the use of software to edit and manipulate images.
6. Ability to write articulately about art.
7. Ability to develop a cohesive body of work

Core Courses

- ART 106 - Drawing and Composition 4 Hour(s)
- ART 209 - Photography I 4 Hour(s)
- ART 215 - History of Photography 4 Hour(s)
- ART 200 - Early Modernism to Present-Art History Survey 4 Hour(s)
- ART 309 - Photography II - Fine Art 4 Hour(s)
- ART 310 - Photography II - Commercial 4 Hour(s)
- ART 314 - Photography II Studio Lighting 4 Hour(s)
- ART 480 - Internship in Art 1 - 4 Hour(s)
- ART 490 - Capstone in Art 4 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 330 - Video and Motion Graphics 4 Hour(s)

Note:

****Students must earn a total of 4 credits in ART 480.****

In Addition

In addition, students are encouraged to select from the following courses:

- BUS 101 - Introduction to Business 4 Hour(s)
- COM 203 - Advertising 4 Hour(s)
- COM 255 - Digital Journalism 4 Hour(s)

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Physical and Health Education Major

Stephen J. Dannhoff Senior Lecturer, Director of Physical Education

Pamela Pinahs-Schultz Professor

The physical and health education major and adapted physical education licensure are designed for students who wish to acquire the diverse competencies needed to teach physical education, health education, and adapted physical education at the Pre-K-12 level. This program provides students with competencies necessary to meet Wisconsin Department of Public Instruction (DPI) requirements.

Physical and Health Education (K-12) Major

All physical education majors must be proficient to the intermediate level in swimming; a Water Safety Instructor and/or Lifeguarding certificate is strongly recommended.

Learning Outcomes for Physical and Health Education

Upon graduation and entry into the profession of Physical and Health Education, the individual will:

1. Articulate basic physical education knowledge, central physical education concepts, and pedagogical practices within the field of physical education. Articulate basic health knowledge, central health concepts, health tools of inquiry, and pedagogical practices within the field of health education.
2. Develop a professional philosophy consistent with current National Association for Sport and Physical Education (NASPE) and state physical education standards, developmentally appropriate curriculum and instructional design, assessment, and professional development. Develop a professional philosophy consistent with current research findings and best practices in health education, curriculum and instructional design, assessment and professional development.
3. Identify the role, function, and responsibility of a physical education teacher and physical education program coordinator as part of the K-12 physical education program. Identify the role, function, and responsibility of a health education teacher and health education program coordinator as part of the comprehensive school health program.
4. Assess informally student physical education and health education needs based on a student's prior physical education experiences, physical fitness level, interests and needs in order to implement quality physical education instruction. Assess informally student health needs based on a student's prior knowledge, interests and needs in order to implement quality health instruction.
5. Identify and articulate the concepts and skills contained in the current state and NASPE physical education standards in the development of curriculum and instruction. Identify and articulate current state and national health standards in the development of curriculum and instruction. Identify and articulate the concepts and skills contained in the current state and national health standards in the development of curriculum and instruction.
6. Design and deliver developmentally appropriate instructional programs based on stated goals and objectives contained in the current state and NASPE standards. Design and deliver developmentally appropriate instructional programs based on stated goals and objectives contained in the current state and national health standards, assessment data, utilizing the CDC guidelines for effective school health programs as the major health content organizer.
7. Analyze and articulate the social, cultural, economic and political factors that affect physical education engagement, home-school relations, and classroom strategies in physical and health education.

8. Evaluate commercial physical education programs as well as state, national, and international resources utilizing research-based principles in physical education curriculum, instruction and assessment. Critically evaluate developmentally appropriate commercial health education programs as well as state, national, and international resources utilizing research-based and best practices principles in health education curriculum, instruction, and assessment.
9. Implement effective developmentally appropriate instructional approaches including the use of media and technology, multiple intelligences, differentiated instruction and brain-based learning that will create learning experiences that will meet the diverse needs of pupils, the community and curricular goals.
10. Apply formal and informal assessment strategies to evaluate and ensure continuous intellectual, social, and physical development of the pupil.
11. Reflect and evaluate the impact of their instructional capacity on others (e.g. learners, parents/guardians, and other professionals) as well as their classroom management skills and seek opportunities to grow professionally (i.e. Wisconsin Family and Consumer Educators, and Wisconsin Association for Health, Physical Education, Recreation, and Dance).

Fees

Specific courses that require use of equipment and disposable supplies are assigned a course fee.

Academic Progression Standards

The academic progression standards for the physical and health education major are presented in the Progression Standards section of this catalog.

Courses in the Physical and Health Education Major

- ATH 101 - Athletic Training Seminar I 2 Hour(s)
- ATH 101L - Athletic Training Seminar I Lab 0 Hour(s)
- ESC 280 - Exercise Physiology 4 Hour(s)
- ESC 280L - Exercise Physiology Lab 0 Hour(s)
- ESC 322 - Kinesiology 4 Hour(s)
- ESC 322L - Kinesiology Lab 0 Hour(s)
- HED 101 - Intro to Health Care Skills 1 Hour(s)
- HED 201 - Nutrition 2 Hour(s)
- HED 202 - Drugs, Society and Human Behavior 2 Hour(s)
- HED 204 - Human Sexuality 2 Hour(s)
- HED 205 - Community Mental Health 2 Hour(s)
- HED 323 - School Health Programs 2 Hour(s)
- HED 353 - Special Methods in Teaching Health Education 4 Hour(s)
- PED 103 - Philosophy, Principles & History of Physical Education/Athletics 3 Hour(s)
- PED 110 - Basic Weight Training Instruction 1 Hour(s)
- PED 110L - Basic Weight Training Instruction Laboratory 0 Hour(s)
- PED 120 - Fundamental Motor Development 2 Hour(s)
- PED 208 - Organization and Administration of Physical Activities/Athletics 2 Hour(s)
- PED 214 - Teaching Outdoor Activities in Physical Education 2 Hour(s)
- PED 310 - Elementary Physical Education Activities 3 Hour(s)
- PED 311 - Team Sports and Officiating 3 Hour(s)

- PED 311L - Team Sports and Officiating Laboratory 0 Hour(s)
- PED 312 - Individual/Dual and Lifetime Activities 3 Hour(s)
- PED 312L - Individual/Dual and Lifetime Activities Laboratory 0 Hour(s)
- PED 353 - Capstone: Special Methods in Teaching Physical Education 4 Hour(s)
- PED 411 - Adapted Physical Education and Sport 4 Hour(s)
- PED 421 - Psycho-Social Aspects of Physical Activity 4 Hour(s)

Courses toward the Adapted Physical Education License

- EDU 364 - Collaboration for Academic, Social and Career Development 4 Hour(s)
- PED 120 - Fundamental Motor Development 2 Hour(s)
- PED 411 - Adapted Physical Education and Sport 4 Hour(s)
- PED 412 - Assessment/Program Evaluation in Adapted Physical Education 2 Hour(s)
- PED 414 - Field Experience in Adapted P.E. 1 Hour(s)

Required Support Courses

- ANP 100 - Overview of Human Anatomy and Physiology 4 Hour(s)
- ANP 100L - Overview of Human Anatomy and Physiology Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

Coaching Emphasis

Physical and Health Education Major - Coaching Emphasis

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or higher**
- CSC 110 - Problem Solving through Programming 4 Hour(s) **or higher**
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Political Science Major

Lilly Goren Chair of Department of History, Political Science and Religious Studies
Professor of Political Science

Patricia Rodda Assistant Professor of International Relations

Jennifer Huck Chair of Department of Communication and Sociology
Associate Professor of Sociology and Criminal Justice

Aaron Routhe Senior Lecturer in Sociology

The Political Science Program offers a major and a minor in global studies and in political science. The Program also offers a Carroll3 Plan for both political science and global studies.

The major in political science prepares students for a lifetime of informed and active citizenship while teaching the skills necessary to succeed in our knowledge-based, globalized economy.

Learning Outcomes for Political Science

Political Science majors at Carroll University will develop a general knowledge of the following:

1. Major institutions (e.g., legislatures, executives, judiciaries, bureaucracies) and processes (e.g., voting, policy-making) of American governments and of diverse national political systems.
2. The main theories used to understand the global arena as well as the impact of globalization on global and national politics.
3. The structure and functions of political theorizing as well as an overview of its history.
4. Important processes and agencies within public organizations and the ethical dimensions of public service.
5. Students develop strong communication skills (reading, writing, and listening) as well as analytical and critical skills, which enable them to dissect and solve complex problems effectively.
6. Students develop the capacity to conduct independent research (identify and develop a research question, design research strategies based on the application of quantitative and/or qualitative methodologies, access and interpret information from print and electronic sources, write and present a critical and analytical argument).
7. Students are strongly encouraged to develop an understanding of the world of work by completing an internship or by participating in an off-campus program that involves contact with governments or non-governmental organizations engaged in the public policy process.

Core Courses

- POL 103 - Politics of the World's Nations 4 Hour(s)
- POL 141 - Intro to American Politics 4 Hour(s)
- POL 155 - Contemporary Global Politics 4 Hour(s)
- POL 266 - Methods of Social Science Research 4 Hour(s)
- POL 275 - Political Theory 4 Hour(s)

At Least One of the Following:

- POL 332 - Public Policy 4 Hour(s)
- POL 336 - The American Presidency 4 Hour(s)
- POL 344 - Constitutional Law and Politics 4 Hour(s)

At Least One of the Following:

- POL 301 - Politics of Developed Nations 4 Hour(s)
- POL 303 - Politics of Developing Nations 4 Hour(s)

Additional Requirements

- Two additional Politics courses
- One 200 or 300-level course in History, Philosophy, or Religious Studies
- POL 399 - Capstone in Political Science and Global Studies 4 Hour(s)

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- **International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Psychology Major

Nicole Depowski Lecturer in Psychology

Jessica Lahner Lecturer of Clinical/Counseling Psychology

Abigail Riemer Assistant Professor

Matthew Scheel Chair of Department of Life Sciences
Associate Professor of Psychology

Tara Schmidt Senior Lecturer

Joshua Wolf Assistant Professor

Psychology is a life science that focuses upon the physical and mental processes that underlie individual behavior. This definition provides a focus for the objectives of the psychology program at Carroll University. The program numbers among its liberal learning objectives those of enriching students' understanding of scientific methods and giving students a thorough knowledge of the subject matter central to their better comprehending people.

In addition to its emphasis upon liberal learning, the program strives to offer a major that provides an excellent foundation for those who wish to pursue graduate studies. The program takes great pride in its strong track record of launching psychology majors into academic and professional careers. Academic careers include teaching and research in biological, cognitive, or social psychology; professional careers include serving people in clinical, counseling, or industrial/organizational settings.

Program Goals for Psychology

1. Majors will understand psychology as a scientific discipline with regard to its content and research methods.
2. Majors will demonstrate intellectual skills in thinking, communication, information gathering and synthesis, as well as in quantitative and scientific methodology.
3. Demonstrate effective written skills.
4. Demonstrate effective interpersonal communication skills.

Learning Outcomes

Upon successful completion of the Psychology major, students will be able to:

1. Define and describe psychology-related terminology and concepts
2. Evaluate and generate psychological research
3. Demonstrate multiple effective communication skills
4. Work effectively in a team environment

A minimum of 40 graded psychology credits are required for the major. Core courses in the major include Psychology 101, 307, and at least one capstone course. Capstone courses include Psychology 403, 492, and 480 (for 4 graded credits). Students who take one capstone course are eligible to take either (or both) remaining capstone courses for psychology credit. In addition to Psychology 101, 307, and a capstone option, complete additional requirements by selecting 28 credits from remaining psychology courses (excluding 398).

Fees

Specific courses that require use of equipment and disposable supplies including certain types of psychological tests are assigned a course fee.

Core Required Courses

- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 307 - Experimental Psychology 4 Hour(s)
- PSY 307L - Experimental Psychology Lab 0 Hour(s)

- PSY 403 - Historical and Modern Viewpoints of Psychology 4 Hour(s) **or**
- PSY 480 - Internship in Psychology 2 - 4 Hour(s) **or**
- PSY 492 - Research Seminar 4 Hour(s)

Note:

Forty credits in Psychology. These credits can (but are not required to) complete an area grouping. (Cannot include both PSY 206 and PSY 221.)

Forty credits are required as a minimum.

Only courses listed as psychology (PSY) courses may be used as core courses for a psychology major or count toward a psychology minor.

Suggested 40 Credit Groupings:

Clinical/Counseling

- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 201 - Abnormal Psychology 4 Hour(s)
- PSY 206 - Developmental Psychology 4 Hour(s)
- PSY 240 - Biopsychology 4 Hour(s)
- PSY 306 - Psychological Testing and Assessment 4 Hour(s)
- PSY 307 - Experimental Psychology 4 Hour(s)
- PSY 321 - Personality - Theory and Assessment 4 Hour(s)
- PSY 416 - Applied Cognitive-Behavioral Therapy 4 Hour(s)
- 4 additional PSY credits
- A capstone course

Industrial/Organizational

- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 211 - Industrial and Organizational Psychology 4 Hour(s)
- PSY 228 - Consumer Behavior 4 Hour(s)
- PSY 303 - Social Psychology 4 Hour(s)
- PSY 306 - Psychological Testing and Assessment 4 Hour(s)
- PSY 307 - Experimental Psychology 4 Hour(s)
- PSY 316 - Thinking, Problem Solving, and Cognition 4 Hour(s)
- PSY 321 - Personality - Theory and Assessment 4 Hour(s)
- 4 additional PSY credits
- A capstone course

Research

- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 240 - Biopsychology 4 Hour(s)
- PSY 303 - Social Psychology 4 Hour(s)
- PSY 307 - Experimental Psychology 4 Hour(s)
- PSY 314 - Learning and Animal Behavior 4 Hour(s)
- PSY 316 - Thinking, Problem Solving, and Cognition 4 Hour(s)
- PSY 401 - Behavioral Neuroscience 4 Hour(s)
- PSY 414 - Research Methods in Behavior Analysis 2 Hour(s)
- PSY 492 - Research Seminar 4 Hour(s)
- 4 additional PSY credits

Pre-PT

- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 201 - Abnormal Psychology 4 Hour(s)

- PSY 221 - Life-Span Psychology 4 Hour(s) **or**
- PSY 206 - Developmental Psychology 4 Hour(s)

- PSY 240 - Biopsychology 4 Hour(s)
- PSY 260 - Health Psychology 4 Hour(s)

- PSY 303 - Social Psychology 4 Hour(s) **or**
- PSY 321 - Personality - Theory and Assessment 4 Hour(s)

- PSY 307 - Experimental Psychology 4 Hour(s)
- PSY 401 - Behavioral Neuroscience 4 Hour(s)
- PSY 403 - Historical and Modern Viewpoints of Psychology 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

- 4 additional PSY credits

Pre-Physical Therapy 4 Year Plan

Courses Required

Courses required to complete a 4 year Pre-Physical Therapy Program

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- ANP 402 - Human Anatomy 4 Hour(s)
- ANP 402L - Human Anatomy Laboratory 0 Hour(s)
- ANP 403 - Human Physiology 4 Hour(s)
- ANP 403L - Human Physiology Laboratory 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)

Bachelor of Science Requirement

(Animal Behavior and Psychology majors only)

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
 - CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)
- OR**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
 - CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- AND**
- ENG 170 - Writing Seminar 4 Hour(s)

Note:

Degree requirements cannot be waived.

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Public Health Major

Laila Azam Clinical Assistant

Barbra J. Beck Professor

Pamela Pinahs-Schultz Associate Professor

Professor

The mission of public health is to fulfill society's interest in assuring conditions in which people can be healthy. Public health carries out its mission through organized, interdisciplinary efforts that address the physical, mental, and environmental health concerns of communities and populations at risk for disease and injury. Its mission is achieved through the application of health promotion and disease prevention technologies and interventions designed to improve and enhance quality of life. The core areas of public health include health services administration, biostatistics, epidemiology, behavioral sciences/health education and environmental health sciences.

Students in the Public Health major will also become eligible to sit for the Certified Health Education Specialist exam offered by the National Commission for Health Education Credentialing (NCHEC). NCHEC's voluntary professional certification program establishes a national standard for individual health education practitioners. Health educators are professionals who design, conduct and evaluate activities that help improve the health of all people. These activities can take place in a variety of settings that include schools, communities, health care facilities, businesses, colleges and government agencies. Certified Health Education Specialists (CHES) are those who have met the standards of competence established by NCHEC and have successfully passed the CHES examination. The CHES designation after a health educator's name is an indication of professional competency and commitment to continued professional development.

Learning Outcomes for the Public Health Program

Public health students will be:

1. Exposed to the science of human health and disease including opportunities for promoting and protecting health across the life course; and able to
2. Articulate the historical and physiological foundations of public health as well as its core values, concepts and functions across the globe and society;
3. Use the basic concepts, methods, and tools of public health data collection in order to apply evidence-based approaches to public health problems;
4. Identify the major health related needs and concerns of the population and address these through the planning, implementation, and evaluation of interventions;
5. Identify soci-economic, behavioral, environmental, and other factors that impact human health and contribute to health disparities;
6. Identify the fundamental characteristic and organizational structures of the U.S. health system as well as differences in the systems of other countries;
7. Address the basic legal, ethical, economic, and regulatory dimensions of public health and the policies, roles and responsibilities of different agencies and branches of government; and
8. Demonstrate public health-specific communication, including technical and professional writing, the use of mass media, and electronic technology.

These learning outcomes are delivered through a focused curriculum in disease prevention, quantitative skills, health service organization and delivery, and community dimensions of practice.

Suggested Minors

1. Health Education
2. Health Care Administration

Admission and Progression Standards

Students will be subject to Carroll University admission and progression standards.

Caregiver Background and Criminal History Check

The student must complete a Background Information Disclosure Form prior to community placements. Certain convictions may prevent or significantly limit the ability of the university to place a student in the field experience and internship courses resulting in the student being unable to meet the university's graduation requirements.

Core Courses (34-40 Credits)

- ANP 100 - Overview of Human Anatomy and Physiology 4 Hour(s)
- ANP 100L - Overview of Human Anatomy and Physiology Laboratory 0 Hour(s)
- HED 206 - Taking Charge of Your Health and Wellbeing 2 Hour(s)
- HED 207 - Gerontology for Healthcare 2 Hour(s)
- PBH 101 - Introduction to Public Health 4 Hour(s)

- PBH 102 - Global Health 4 Hour(s)
- PBH 114 - Biostatistics for Health Sciences 4 Hour(s)
- PBH 210 - Public Health for Communities 4 Hour(s)
- PBH 211 - Public Health Field Experience 2 Hour(s)
- PBH 302 - Environmental Health 2 Hour(s)
- PBH 303 - Occupational Health and Safety 2 Hour(s)
- PBH 312 - Public Health Policy and Administration 4 Hour(s)
- PBH 320 - Principles of Health Behavior 4 Hour(s)
- PBH 324 - Program Development, Assessment, and Evaluation in Public Health 4 Hour(s)
- PBH 421 - Epidemiology 4 Hour(s)
- PBH 480 - Public Health Internship 6 - 12 Hour(s)

Required Supporting Courses

- COM 290 - Intro to Health Communication 4 Hour(s)
- GRC 106 - Intro-Communication Technology 2 Hour(s)
- HED 101 - Intro to Health Care Skills 1 Hour(s) **or**
- Equivalent CPR

Choose 4 credits from the following:

- HED 201 - Nutrition 2 Hour(s)
- HED 204 - Human Sexuality 2 Hour(s)
- HED 205 - Community Mental Health 2 Hour(s)
- HED 206 - Taking Charge of Your Health and Wellbeing 2 Hour(s)
- HED 207 - Gerontology for Healthcare 2 Hour(s)

Pre-Physical Therapy 4 Year Plan

Courses Required to Complete a 4 Year Pre-Physical Therapy Program

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- ANP 402 - Human Anatomy 4 Hour(s)
- ANP 402L - Human Anatomy Laboratory 0 Hour(s)
- ANP 403 - Human Physiology 4 Hour(s)
- ANP 403L - Human Physiology Laboratory 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s)

- PHY 101 - Introductory Physics I 4 Hour(s)
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
- PHY 102 - Introductory Physics II 4 Hour(s)
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)

Public Health Bachelor of Science Requirement

The requirement for the Public Health Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
and either
- CMP 113 - Computational Thinking II 4 Hour(s) **or**
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- PBH 114 - Biostatistics for Health Sciences 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
and
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived

Religious Studies Major

Pascale Engelmajer Associate Professor of Religious Studies

James Grimshaw Associate Professor of Religious Studies

The Religious Studies Program offers a major and a minor in religious studies.

The religious studies major is designed to provide students with depth and breadth in the study of religion as universal to human experience, fundamental to human efforts to find meaning in the universe, and central to cultures around the world, past and present. As an inherently interdisciplinary field, the study of religion incorporates a wide variety of approaches, including historical, psychological, sociological, anthropological, literary, and philosophical. In addition to being provided opportunities to reflect extensively on the big questions of human existence, students majoring in religious studies become familiar with many religious traditions, and are equipped with multiple ways of thinking about the nature of religion, its role in society, and its place in the lives of individuals. Religious studies majors may go on to careers in counseling, journalism, ministry, social work, or any number of other professions requiring strong critical thinking skills, good writing ability, and careful reading. Graduate school in a variety of fields is possible, and religious studies majors historically score very well on the LSAT for law school admission. As a minor, Religious Studies can very effectively supplement a number of majors, including, for example, literature, history, writing, psychology, or Philosophy, Political Science and Economics. Likewise, the philosophy minor not only provides a strong grounding in reasoning skills, but also background in the variety of ways human beings think about, and have thought in the past about, what matters and why.

Learning Outcomes for Religious Studies

Upon successful completion of major requirements students should be able to:

1. Articulate how religion has the power to shape individual lives and social values.

2. Critically read, evaluate, and write on the foundational texts and the significant ideas, concepts, and questions in the study of religion.
3. Demonstrate an in-depth knowledge of Christian traditions including critically reflecting on the Hebrew Bible, New Testament, and Christian history and theologies.
4. Show a basic understanding of a breadth of religious traditions including Judaism, Islam, Buddhism, Hinduism and Native American traditions.
5. Use library research tools specific to religious studies, and religious studies methodologies to construct papers, essays and class presentations.
6. Use these perspectives and skills to become a responsible citizen in a religiously plural world.
7. Identify, analyze, and compare understandings of the meaning of life, the human condition, and the nature of the good life in several religious traditions.

Core Courses

Two Introductory Courses (100 Level)

- REL 103 - Intro to the New Testament 4 Hour(s)
- REL 106 - Understanding Religion 4 Hour(s)

One Advanced Course (400 Level)

- REL 499 - Capstone: Senior Seminar 4 Hour(s)

Six Intermediate Courses (200 and 300 Level)

Six intermediate courses (200 and 300 level); at least two must be from 300 level:

Two in Christian Tradition

- REL 230 - Foundations of Christianity 4 Hour(s)

Choose one from:

- REL 201 - Jesus of Nazareth 4 Hour(s)
- REL 202 - Religious Traditions in America 4 Hour(s)
- REL 210 - Suffering and Hope 4 Hour(s)
- REL 291 - Topics in Religious Studies 4 Hour(s) **or**
- REL 391 - Topics in Religious Studies 4 Hour(s)
- REL 310 - Powers, Politics, and Pluralism in Biblical Interpretation 4 Hour(s)

Two in Religious Traditions

- REL 315 - Women in Religion 4 Hour(s)
- REL 220 - Health and Religion 4 Hour(s)
- REL 206 - Asian Religions 4 Hour(s)

- REL 216 - Judaism, Christianity, and Islam 4 Hour(s)

Two Electives

- One 200 or 300-level course in Religious Studies or Philosophy
- One 200 or 300-level course in History, Philosophy, or Political Science

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.
- **International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Secondary Education Major

Department of Education

Students complete the Secondary Education Major with one of the approved majors listed for licensure in the early adolescence through adolescence level. This qualifies the student to teach school subjects related to their major in grades 4 to 12. Students who complete the Secondary Education Major with an approved major in art, music, physical and health education, or Spanish and who have placements in both elementary and secondary school settings during the student teaching semester are eligible for licensure in their subject area in pre-kindergarten through grade 12.

Courses in the Major

- EDU 102 - Exploration in Education and Society 4 Hour(s)
- EDU 202 - Intercultural Context in Education 4 Hour(s)
- EDU 203 - Educational Psychology 4 Hour(s)
- EDU 210 - Field Experience in Education I 1 Hour(s)
- EDU 249 - Development, Observation, and Assessment 4 Hour(s)
- EDU 261 - Introduction to Inclusive Education 4 Hour(s)
- EDU 290 - Instructional Design for the Early Adolescent/Adolescent Learner 2 Hour(s)
- EDU 302 - Educational Advocacy 4 Hour(s)
- EDU 306 - Literacy in the Disciplines 4 Hour(s)
- EDU 353 - Instruction and Assessment for Disciplinary Content 4 Hour(s)

- EDU 360 - Teaching and Learning with English Language Learners 2 Hour(s)
- EDU 408 - edTPA development 1 Hour(s)
- EDU 409 - Secondary and K-12 Student Teaching 6 Hour(s)
- EDU 410 - Secondary and K-12 Student Teaching 6 Hour(s)

Required Core and General Education Program Area Courses

Students should consult with their Education advisor to select courses that meet the GE1 and GE 2 course sequence requirements, the Cross-Cultural Development course and Cross-Cultural Experience. Students seeking licensure in Science or Social Studies should enroll in ENV 120 or ENV 252 as part of their General Education Program.

Special Education Dual Certification

The Teacher Education Program offers Cross Categorical Special Education (K-12) with two certification tracks: 1) Special Education/Elementary Education and 2) Special Education/Secondary Education. The program focuses on research-based models, including effective strategies and interventions to meet the academic, social and emotional needs of all students.

Emphasis in Dual Certification: Cross-Categorical Special Education (K-12)

- EDU 234 - Language Development and Disorders of the Exceptional Child 4 Hour(s)
- EDU 312 - Field Experience-Adaptive Education 1 Hour(s)
- EDU 330 - Introduction to Diagnostic Assessment of Students with Exceptional Needs 4 Hour(s)
- EDU 364 - Collaboration for Academic, Social and Career Development 4 Hour(s)
- EDU 372 - Instructional Design and Methodology for Students with Mild to Moderate Learning Disabilities 4 Hour(s)
- EDU 373 - Instructional Design and Methodology for Students with Emotional/Behavioral Disabilities 4 Hour(s)
- EDU 423 - Special Education Student Teaching 6 Hour(s)

English as a Second Language Dual Licensure Program

The English as a Second Language (ESL) undergraduate program at Carroll University is an emphasis that can be added to an Elementary Education major or a Secondary Education major. Students who successfully complete the requirements for this emphasis and are endorsed for an initial teaching license through their grades K-9 (Elementary) or grades 4-12 (Secondary) program will be endorsed for the English as a Second Language #1395 as an additional license.

The ESL program is 20 credits in coursework and 7 credits in clinical experiences; of these 27 credits, candidates already complete 6 credits of this coursework and 7 credits of clinical experiences in their Elementary or Secondary Education major. Therefore, to complete the ESL program and be eligible for this additional license through the WI-DPI, students complete an additional 14 credits of coursework in addition to their Education major.

The following courses in the Elementary Education and Secondary Education majors apply to the ESL emphasis:

- EDU 202 - Intercultural Context in Education 4 Hour(s)
- EDU 311 - Field Experience in Education II 1 Hour(s)

Students complete the following coursework for the ESL emphasis:

- EDU 216 - Foundations of Multilingual Education 4 Hour(s)
- EDU 220 - Applied Linguistics for Educators 4 Hour(s)
- EDU 335 - Methods of Teaching and Learning with Emergent Bilingual Students 4 Hour(s)
- EDU 340 - Multiple Literacies and Multilingualism in Education 4 Hour(s)
- EDU 422 - Special Student Teaching Practicum 1 - 5 Hour(s)

NOTES:

*EDU 335 replaces the requirement for completing EDU 360 Teaching and Learning with English Language Learners (2 credits) in the Elementary Education or Secondary Education program.

**Elementary Education majors adding the ESL emphasis complete EDU 422 as their second student teaching course rather than completing EDU 420; Secondary Education majors adding the ESL emphasis will complete EDU 422 as their second student teaching course rather than completing EDU 410.

In order to successfully meet the standards for the English as a Second Language program and be eligible for licensure, students must meet the following requirements in addition to successfully completing the required coursework:

- Students meet the content knowledge assessment by earning a 3.0 in the coursework or passing the Praxis II exam in this content area.
 - Students do not have to complete Praxis II exam if they earn a 3.0 in the ESL coursework
- Students must earn a C or better in each of the ESL courses.
- Students must receive a satisfactory evaluation from their cooperating teacher in the ESL clinical placements.

Sociology Major

Jennifer L. Huck **Chair of Communication, Criminal Justice, and Sociology Associate Professor of Criminal Justice and Sociology**

Kelly Pinter **Lecturer of Criminal Justice and Sociology**

Aaron Routhe **Senior Lecturer of Sociology and Sustainability**

Program Advisor

Aaron Routhe (arouthe@carrollu.edu)

The **Sociology Program** at Carroll University offers a major in sociology, as well as minors in general sociology and the sociology of sustainability (environmental sociology). Sociology majors may follow a curriculum track such as in **social work, sustainability, pre-law**, and **pre-occupational** or **physical therapy** if they choose. The Sociology Program encourages majors to select a secondary major, or multiple minors, that reflect their career and personal interests and further prepares graduates for greater success in a more rapidly changing world.

The Mission of Pioneer Sociology is equipping graduates to work and lead: in building the resilience of individuals, families, and the groups they belong to (**Community**); and fostering the social, economic, and environmental flourishing (**Sustainability**) of peoples' lives in the places they live. The PIOSOC motto is: Sociology with Purpose, Sociology for Change, Sociology in Motion - A Sociology for Community & Sustainability.

Learning Outcomes for Sociology

Students successfully completing the major are expected to:

1. Demonstrate an understanding of the variety and diversity of societal/cultural phenomena addressed by the field of sociology.
2. Describe and apply sociological concepts, research methods, and theoretical perspectives to describe how societal/cultural forces shape individual's personal experiences.
3. Demonstrate the ability to develop and convey oral and written messages effectively in a professional manner.

Sociology Major (40 Credit Hours)

- **Core Courses**
- **Plus four additional 4-credit elective 100- or 200-level courses in Sociology**
- **And two 4-credit elective 300-level (non-Core Major) in Sociology**

Core Courses

- SOC 101 - Introduction to Sociology 4 Hour(s)
- SOC 266 - Methods of Social Science Research 4 Hour(s)
- SOC 308 - Sociological Theory 4 Hour(s)
- SOC 399 - Capstone in Sociology 4 Hour(s)

Suggested Career-Course Tracks in the Sociology Major:

Sociology majors may use one of the curriculum tracks listed below to select a minimum set of courses based on their vocational interests and career goals. Selecting a track is not required. It indicates interest in a possible career field and aids in one-on-one faculty advising to customize your Pioneer Sociology and Carroll University education, including selecting your general education (Pioneer Core) courses. Curriculum tracks available in the Sociology Program include:

Specific Sociology Program tracks in -

- Sustainability
- Social Work
- Pre-Law
- Pre-Physical Therapy or Pre-Occupational Therapy

General Sociology Program tracks -

- General (or Community Development)

Note:

The Sociology Course catalog is under revision and does not list all courses currently available to register. Several courses for listed tracks are under review; inquire with the Sociology Program faculty advisor for current and complete approved course listing.

Bachelor of Science Requirements

Sociology Majors may take SOC 114 to meet their CMP 114 requirement

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
and
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) **or**
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
and
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher

- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Spanish Major

Jessica Boll Associate Professor of Spanish

Elena M. DeCosta Associate Professor of Spanish

The Modern Languages program offers a major in Spanish and minors in French and Spanish.

Within the framework of a liberal arts education, the Spanish major provides students with direct linguistic contact with a culture different from their own. A culture expresses itself primarily through its language and its literature, and to comprehend another's, one must be able to communicate with the peoples of that culture.

As a general rule, courses are conducted in the target language. All majors should spend a summer, semester or year abroad. Students may choose to study abroad during a summer, semester, or full academic year by applying to the Office of International Education. Recent graduates have studied in Argentina, Costa Rica, Ecuador, Guatemala, Mexico, and Spain.

Learning Outcomes for Spanish

A student successfully completing a Spanish major at Carroll University:

- Can understand with ease virtually everything heard or read.
- Can summarize information from spoken and written sources and reconstruct arguments in a coherent presentation.
- Can express oneself spontaneously, fluently and precisely, differentiating meaning in complex situations.
- Can summarize cultural texts (literary and sociopolitical) intended for native speakers to support analysis, reflection, and research related to global issues while integrating cross-cultural perspectives.
- Can utilize a wide range of sources on cultural themes, including international and domestic sources in the target language (e.g., heritage/immigrant community newspapers, radio and TV broadcasts, or websites).
- Can utilize information from a variety of sources in the target language, including sources produced by writers in the target culture for target culture readers and listeners as well as sources produced by writers in the base culture (e.g., émigré community, for émigré readers and listeners) in order to create one's own argument, drawing appropriately on research for evidence of cultural significance.

- Can balance perspectives across cultures and evaluate sources of target culture information.

Core Courses

- SPA 201 - Intermediate Spanish I 4 Hour(s)
- SPA 202 - Intermediate Spanish II 4 Hour(s)
- SPA 301 - Conversation and Composition I 4 Hour(s)
- SPA 401 - Advanced Conversation 2 Hour(s)
- SPA 480 - Internship/Capstone Internship in Spanish 2 - 4 Hour(s)

300-Level Electives

(Choose 5)

- SPA 300 - Hispanic Linguistics 4 Hour(s)
- SPA 305 - Spanish for the Professions 4 Hour(s)
- SPA 307 - Latin American Civilization 4 Hour(s)
- SPA 308 - Hispanic Civilization 4 Hour(s)
- SPA 309 - Introduction to Hispanic Literature 4 Hour(s)
- SPA 311 - Medical Spanish 4 Hour(s)
- SPA 319 - Hispanic Cultural Studies through Journalism and Literature 4 Hour(s)

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language
**International students who have English as their second language should contact the Registrar concerning the Modern Language requirement.
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s)
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Four year plans are individually developed based on the students' placement level, cohort if applicable, and all open to modification.

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Sports Administration Major

Stephen Dannhoff Senior Lecturer

The curriculum in sports administration is designed to prepare students for careers of leadership in the field of sports administration. During the course of study, sports administration students gain expertise for multi-faceted sports careers in the fields of facilities management, information technology, and front office administration. The program provides students the opportunity to garner knowledge and develop skills through coursework and mentorship experience within the sport industry.

Bachelor of Science

The Carroll University Sports Administration major will provide students with a knowledge, understanding, and appreciation of the sport industry that will provide career advancement opportunities. The tools and resources provided to the students will occur in a positive learning environment combining both theory and practice. In pursuit of our mission we will: Prepare students to critically analyze issues and problems related to the sports administration field; Ensure students are proficient in the outcome areas of personal and professional decision making, ethical and legal practices, practical and theoretical competence, and professional development; and Require students to acquire significant contact hours in an internship setting to enhance authentic learning.

Program Level Student Learning Outcomes

1. Display an understanding of the managerial considerations involved in sports administration practice within a variety of professional settings.
2. Display an understanding of how marketing principles may be effectively applied in a variety of sports administration settings, particularly as they pertain to ticket and sponsorship sales and customer service.
3. Display an understanding of how public relations tactics such as news releases and community relations may be effectively employed in a variety of sports administration settings,
4. Display an understanding of the financial dimensions of sports administration practice, including resource acquisition and budget considerations,
5. Display an understanding of the economic dimensions of sports administration practice, particularly as it relates to public finance of sport and economic impact evaluations,
6. Display an understanding of the ethical dimensions of sports administration practice and be able to make ethical decisions based on sound professional judgment,
7. Display an understanding of the legal dimensions of sports administration practice and be able to apply legal theory such as contract law and tort law in various sports administration settings,
8. Display an understanding of the key considerations involved in successful sports event and sports facility management,
9. Display sound critical thinking skills that can be employed in sports administration settings,
10. Display effective oral, written and interpersonal communication skills as required for successful sports administration practice,
11. Display proficiency in employing technologies commonly utilized by sports administrators,
12. Display proficiency in applying sports administration knowledge and related skills in an in-depth experiential learning assignment (i.e., internship).

Student Learning Goals

1. Secure an understanding of how relevant administrative, marketing, public relations, economic, and financial theory are applicable to the various facets of sports administration practice
2. Develop an understanding of and an appreciation for the psycho-social dimensions of sport and sports administration practice
3. Gain an understanding of the ethical and legal dimensions of successful sports administration practice
4. Develop critical thinking skills, particularly as they are relevant to successful sports administration practice
5. Advance oral, written and interpersonal communication skills as necessary for successful sports administration practice
6. Develop skills pertaining to the use of technology in sports administration

7. Acquire relevant professional experience in which knowledge secured in sports administration classes is successfully applied in a sports management setting

Internship Requirements

1. A minimum grade point average of 2.0 at the time of application for the internship.
2. A minimum of 480 hours of actual work-related experience, preferably for an entire semester.
3. The intern works under the guidance of experienced individuals/supervisors in the area of interest that has been pre-approved by the program.
4. Periodic and final written reports about the work experiences, by both the intern and his/her supervisors, are submitted to the program.

Fees

Specific courses that require use of equipment and disposable supplies are assigned a course fee.

Core Courses

- PED 103 - Philosophy, Principles & History of Physical Education/Athletics 3 Hour(s)
- PED 208 - Organization and Administration of Physical Activities/Athletics 2 Hour(s)
- PED 311 - Team Sports and Officiating 3 Hour(s)
- PED 311L - Team Sports and Officiating Laboratory 0 Hour(s)
- PED 312 - Individual/Dual and Lifetime Activities 3 Hour(s)
- PED 312L - Individual/Dual and Lifetime Activities Laboratory 0 Hour(s)
- PED 411 - Adapted Physical Education and Sport 4 Hour(s)
- PED 421 - Psycho-Social Aspects of Physical Activity 4 Hour(s)
- SPD 406 - Sports Marketing and Finance 4 Hour(s)
- SPD 408 - Sport Facilities and Event Management 4 Hour(s)
- SPD 410 - Athletic Administration 4 Hour(s)

Capstone Course

- SPAD 480 - Internship in Sports Administration 12 Hour(s)

Preferred Minors Available

Coaching Minor

Film and Television Minor

Graphic Design Minor

Liberal Arts Communication Minor

Management and Leadership Minor

Marketing Minor

Photography Minor

Web Design Minor

Bachelor of Science Requirements

The requirements for a Bachelor of Science degree are:

- CMP 112 - Computational Thinking I 4 Hour(s)
- CMP 114 - Computational Thinking II - Statistical Analysis Emphasis 4 Hour(s) or
- MAT 140 - Calculus and Its Applications 4 Hour(s) or higher
- CSC 110 - Problem Solving through Programming 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Theatre Arts Major

Jennifer Dobby Chair of Department of Visual and Performing Arts
Senior Lecturer in Theatre Arts

Justin Gale Scene Shop and Production Manager

Cecelia Mason Kuenn Costume Shop Manager

James Zager Associate Professor in Theatre Arts

The Theatre & Arts Management Program offers a major in Theatre Arts, and minors in Arts Management and Theatre.

The Theatre Arts Major is intended to prepare students for continued engagement in the theatre arts, arts management, theatre education, or graduate studies. Through traditional classroom work, participation in fully produced mainstage productions, a multifaceted student theatre season, and in-depth community partnerships, we strive to train the artist of today for the theatre of tomorrow.

Learning Outcomes for Theatre Arts

Upon successful completion of major requirements students will be able to demonstrate:

1. An understanding of theatre history and literature in a global context.
2. The skills necessary to take part in the collaborative theatre process.
3. The tools to create and promote theatre as a vital art form serving a diverse community.

Core Courses

- THE 100 - Theatre Participation 1 Hour(s)
and/or
- THE 300 - Theatre Practicum 1 Hour(s)

- THE 101 - Introduction to Theatre Arts 4 Hour(s)
- THE 102 - Introduction to Performance 4 Hour(s)
- THE 120 - Costume Construction & Makeup 2 Hour(s)
- THE 121 - Set Construction & Lighting 2 Hour(s)
- THE 215 - Theatre History and Literature I 4 Hour(s)
- THE 260 - Arts Management 4 Hour(s)
- THE 301 - Contemporary Acting Styles 4 Hour(s)

- THE 302 - Period Acting Styles 4 Hour(s)
- THE 307 - Directing for the Stage 4 Hour(s)
- THE 308 - Writing for the Stage 4 Hour(s)

Note:

To fulfill the major requirements, students must take a total of 4 credits in THE 100 and/or THE 300.

Experiential/Professional/Leadership Opportunities (4 credits)

Minimum of 4 credits chosen from:

- THE 296 - Special Studies/Research in Theatre 1 - 4 Hour(s)

- THE 291 - Special Studies/Topics in Theatre 1 - 4 Hour(s)
and/or
- THE 396 - Special Studies/Research in Theatre 1 - 4 Hour(s)
- THE 391 - Special Studies/Topics in Theatre 1 - 4 Hour(s)

- THE 380 - Internship in Theatre Arts 1 - 4 Hour(s)
and/or
- THE 480 - Internship in Theatre Arts 1 - 4 Hour(s)

- THE 390 - Theatre Projects 1 - 4 Hour(s)
and/or
- THE 490 - Theatre Projects 2 Hour(s)

Bachelor of Arts Requirements

The requirements for a Bachelor of Arts are:

- Students must take 8 credits in the same modern language (MLL) other than English, this does not include American Sign Language. Carroll University will accept a total of 8 transferred credits from another college/university as long as all 8 credits are completed in the same language.

- **International students who have English as their second language should contact the Registrar concerning the Modern Language
- MAT 106 - Mathematics for the Liberal Arts 4 Hour(s) or higher
- ENG 170 - Writing Seminar 4 Hour(s)
- Degree requirements cannot be waived.

Note:

Each major may have specific course sequencing requirements. For specific requirements, see "Required Support Courses" within each major

Minor

Accounting Minor

Requirements

- ACC 205 - Financial Accounting 4 Hour(s)
- ACC 207 - Intermediate Accounting I 4 Hour(s)
- ACC 208 - Intermediate Accounting II 4 Hour(s)

Choose 4 or More Hours from the Following:

- ACC 206 - Managerial Accounting 2 Hour(s)
- ACC 210 - Accounting Information Systems 2 Hour(s)
- ACC 305 - Advanced Accounting I 4 Hour(s)
- ACC 310 - Advanced Cost Accounting and Budgeting 4 Hour(s)
- ACC 324 - Advanced Business Law 4 Hour(s)
- ACC 405 - Tax Accounting I 4 Hour(s)
- ACC 406 - Tax Accounting II 4 Hour(s)

Note:

Transfer credit for accounting courses required for the accounting minor will only be accepted if the course was taken in four years prior to the date of transfer to Carroll University. The transfer date is defined as the date of the start of courses at Carroll.

Actuarial Science Minor

Learning Outcomes and Assessment

Students minoring in Actuarial Science are expected to:

1. Develop an understanding of the actuarial profession, what actuaries do, and how they do it.
2. Develop a knowledge base and proficiency in the core subjects needed for entry into the profession.
3. Develop an appreciation for the linkages between these core subjects.

4. Develop the critical and analytical thinking skills necessary for success in the profession.
5. Develop the communication skills that are essential in the business environment.
6. Develop the learning skills necessary for continued success in the profession.

Requirements

- ASC 301 - Financial Mathematics 4 Hour(s)
- ASC 302 - Probability 4 Hour(s)
- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- MAT 160 - Calculus I 4 Hour(s)
- MAT 160L - Calculus I - Laboratory 0 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)
- MAT 161L - Calculus II - Laboratory 0 Hour(s)
- MAT 207 - Calculus III 4 Hour(s)

Animal Behavior Minor

The course of study for this minor will consist of 5 courses:

It is recommended that students take BIO 120 prior to enrollment in ANB 101.

Requirements

- ANB 101 - The Science of Animal Behavior 4 Hour(s)
- ANB 101L - The Science of Animal Behavior Laboratory 0 Hour(s)
- PSY 101 - Introductory Psychology 4 Hour(s)
- PSY 240 - Biopsychology 4 Hour(s)
- PSY 314 - Learning and Animal Behavior 4 Hour(s)

One of the Following

- ANB 250 - Introduction to Canine Care, Behavior & Training 4 Hour(s)
and
- ANB 250L - Introduction to Canine Care, Behavior & Training Laboratory 0 Hour(s)

- ANB 255 - Advanced Skills in Canine Management & Training 4 Hour(s)
and
- ANB 255L - Advanced Skills in Canine Management & Training Laboratory 0 Hour(s)

- ANB 260 - Fundamentals of Wildlife Rehabilitation 2 Hour(s)
- ANB 302 - Winter Ecology of Wolf and Lynx 3 Hour(s)

- BIO 417 - Behavioral Ecology 4 Hour(s)
and
- BIO 417L - Behavioral Ecology Laboratory 0 Hour(s)

- PSY 401 - Behavioral Neuroscience 4 Hour(s)
- PSY 414 - Research Methods in Behavior Analysis 2 Hour(s)
- ANB 270 - The Human-Animal Bond 4 Hour(s)
- ANB 320 - Fundamentals of Zoo Animal Care 2 Hour(s)

Applied Business Analytics Minor

Becoming an "analytics enabled" professional is the goal of the business analytics minor. Regardless of students' majors, this minor provides the tools necessary to use and understand analytics in their daily work. This is a particularly important addition to any major, however it is particularly useful for marketing, finance, management, and accounting. The minor builds on the foundation of BUS114 and CMP114 and explores data visualization and predictive analytics. Students finish the minor with a capstone project that uses data to address a business problem.

Required Courses

The Applied Business Analytics Minor consists of 18 credits focusing on analytic practice, analysis, visualization, and description.

- BUS 280 - Fundamentals of Applied Analytics 4 Hour(s)
- BUS 307 - Data Visualization Tools and Techniques 4 Hour(s)
- BUS 399 - Applied Business Analytics Projects 2 Hour(s)

Electives

Must take any 2 courses from any of these areas:

Business

- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 435 - Marketing Research 4 Hour(s)
- ECO 314 - Econometrics 4 Hour(s)

Methodology

- COM 150 - Research Methodology 4 Hour(s)
- ENV 367 - Geographic Information Systems 4 Hour(s)
- POL 266 - Methods of Social Science Research 4 Hour(s)
- OR
- SOC 266 - Methods of Social Science Research 4 Hour(s)

Design and Communications

- COM 201 - Presentational Speaking 4 Hour(s)
- COM 227 - Technical Writing in Organizations 4 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)

- GRC 290 - Digital Design Studio 4 Hour(s)

Ethics

- COM 370 - Communication Technology and Society 4 Hour(s)
- PHI 106 - Ethics, Values and Judgment 4 Hour(s)
- PHI 210 - Philosophy, Politics, and Economics 4 Hour(s)

Art Minor

Requirements

- ART 106 - Drawing and Composition 4 Hour(s)
- ART 107 - Beginning Design 2D and 3D 4 Hour(s)

One Art History Survey Course:

- ART 200 - Early Modernism to Present-Art History Survey 4 Hour(s)
- ART 213 - Themes in Art History - Prehistory to Baroque 4 Hour(s)

Two Additional Art Studio Courses

Two additional studio art courses selected from the following:

- ART 201 - Painting I 4 Hour(s)
- ART 206 - Intermediate Drawing 4 Hour(s)
- ART 220 - Sculpture I 4 Hour(s)
- ART 225 - Ceramics I 4 Hour(s)
- ART 230 - Printmaking I 4 Hour(s)
- ART 235 - Art Metals 4 Hour(s)
- ART 301 - Painting II 4 Hour(s)
- ART 306 - Advanced and Life Drawing 4 Hour(s)
- ART 320 - Sculpture II 4 Hour(s)
- ART 325 - Ceramics II 4 Hour(s)
- ART 330 - Printmaking II 4 Hour(s)
- ART 401 - Painting III 4 Hour(s)

Arts Management Minor

Jennifer Dobby	Senior Lecturer Chair, Department of Visual and Performing Arts
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The Arts Management minor is designed for students with a major in Art, Graphic Communications, Photography, Theatre Arts, or Music, although it may have a broader appeal and is open to any student who is interested.

Learning Outcomes for Arts Management

Upon completion of the minor, students will be able to:

1. Demonstrate knowledge and understanding of arts organizations and venues, how they are managed, and their relevance within the larger community.
2. Demonstrate awareness of the role and responsibilities of the manager within arts organizations and/or venues and within the larger cultural and social context.
3. Explain and respond to the challenges faced by arts managers and arts organizations in the areas of organization, promotion, funding and legal issues

Courses Required for the Minor

- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)
- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- THE 260 - Arts Management 4 Hour(s)

One of the Following:

- ART 213 - Themes in Art History - Prehistory to Baroque 4 Hour(s)
- ART 215 - History of Photography 4 Hour(s)
- MUS 151 - History of Jazz 4 Hour(s)
- MUS 158 - Rock Music - Roots and History 4 Hour(s)
- THE 101 - Introduction to Theatre Arts 4 Hour(s)
- THE 215 - Theatre History and Literature I 4 Hour(s)

One of the Following:

- ACC 205 - Financial Accounting 4 Hour(s)
- BUS 265 - Human Resource Management 4 Hour(s)
- COM 203 - Advertising 4 Hour(s)
- COM 208 - Introduction to Public Relations 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- ENG 230 - Grant Writing 4 Hour(s)
- LEA 190 - Leadership and Personal Effectiveness 4 Hour(s)
- LEA 302 - Leadership Theory and Practice 4 Hour(s)

Note:

Arts Management minors interested in applying for Carroll's MBA program should choose ACC 205 (an elective above), ECO 124, and plan to take CMP 112.

Aviation Science and Unmanned Aircraft Systems (UAS)

Program Learning Outcomes

Upon graduation, an Aviation Science and Unmanned Aircraft Systems (UAS) Minor will:

1. Be able to understand and Demonstrate safe operations of unmanned aircraft systems
2. Be able to understand and Analyze acquired drone data using sensor payloads
3. Demonstrate competency of Python coding
4. Demonstrate the process of drone design and flight.
5. Demonstrate and analyze the process of drone detection and identification using counter drone systems.

Course of Study

- AVS 103 - Introduction to Unmanned Aircraft Systems 4 Hour(s)
- AVS 214 - Unmanned Aircraft and Autonomous Systems 4 Hour(s)
- AVS 310 - Unmanned Aircraft Systems Operations and Applications 4 Hour(s)
- AVS 400 - Unmanned Aircraft Systems (UAS) Capstone 4 Hour(s)

Biochemistry Minor

Requirements

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s) **or**
- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CHE 203 - Organic Chemistry I 4 Hour(s)
- CHE 203L - Organic Chemistry I Laboratory 0 Hour(s)
- CHE 308 - Biochemistry I 4 Hour(s)
- CHE 308L - Biochemistry I Laboratory 0 Hour(s)

Biology Minor

Requirements

- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)

- BIO 125 - General Biology II 4 Hour(s)
- BIO 125L - General Biology II Laboratory 0 Hour(s)
- BIO 220 - Genetics 4 Hour(s)
- BIO 220L - Genetics Laboratory 0 Hour(s)
- BIO 225 - Organismal Physiology 4 Hour(s)
- BIO 225L - Organismal Physiology Laboratory 0 Hour(s)
- Two elective courses in Biology (see Electives under Biology Major)

Business Analytics Minor

The Business Analytics Minor consists of 18 credits focusing on analytic practice, analysis, visualization, and description.

Core - Must take all of these courses

- BUS 280 - Fundamentals of Applied Analytics 4 Hour(s)
- BUS 307 - Data Visualization Tools and Techniques 4 Hour(s)
- BUS 399 - Applied Business Analytics Projects 2 Hour(s)

Electives - Must take any 2 courses from any of these areas

Business

- BUS 301 - Principles of Marketing 4 Hour(s)
- BUS 305 - Principles of Operations Management 4 Hour(s)
- BUS 435 - Marketing Research 4 Hour(s)
- ECO 314 - Econometrics 4 Hour(s)

Methodology

- COM 150 - Research Methodology 4 Hour(s)
- ENV 367 - Geographic Information Systems 4 Hour(s)
- POL 266 - Methods of Social Science Research 4 Hour(s)
- SOC 266 - Methods of Social Science Research 4 Hour(s)

Design and Communication

- COM 201 - Presentational Speaking 4 Hour(s)
- COM 227 - Technical Writing in Organizations 4 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 290 - Digital Design Studio 4 Hour(s)
- GRC 390 - Advanced Design Thinking 4 Hour(s)

Ethics

- COM 370 - Communication Technology and Society 4 Hour(s)

- PHI 106 - Ethics, Values and Judgment 4 Hour(s)
- PHI 210 - Philosophy, Politics, and Economics 4 Hour(s)

Chemistry Minor

Requirements

- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)
- CHE 201 - Analytical Chemistry 4 Hour(s)
- CHE 201L - Analytical Chemistry Laboratory 0 Hour(s)
- CHE 203 - Organic Chemistry I 4 Hour(s)
- CHE 203L - Organic Chemistry I Laboratory 0 Hour(s)
- CHE 308 - Biochemistry I 4 Hour(s)
- CHE 308L - Biochemistry I Laboratory 0 Hour(s)

Coaching Minor

The Coaching Minor emphasizes essential elements for future coaches. These key elements include:

- Human growth and developmental aspects of coaching
- Medical-legal aspects of coaching
- Social and psychological aspects of coaching
- Biomechanical aspects of coaching
- Strategies and technical aspects of coaching
- Professional preparation and practicum in coaching

Mission and Program Goals

The mission of the coaching minor is to respond to the critical need in today's society for quality coaches. The coaching minor is designed to professionally prepare the student to become an effective coach on and off the field of play. The coursework provides students opportunities to learn and apply the principles and practices of coaching in any athletic or sport setting. The practicum allows the students to actively participate in a coaching experience under the guidance and supervision of a qualified coach.

Program Learning Outcomes

With a strong background in the science and physiology of movement, athletic training, care and prevention of athletic injuries and psychology of coaching, students will possess the knowledge, skills and experience required for services as an athletic coach.

1. Human growth and developmental aspects of coaching
The program will emphasize practices, issues and theories in human growth and development with special attention placed on training, conditioning and nutrition.

2. Medical-legal aspects of coaching
The program will emphasize practices, issues and theories in first aid, care, prevention and recovery from athletic injuries.
3. Social/Psychological aspects of coaching
The program will emphasize practices, issues, and theories involving behavioral aspects of an athlete's relationship with society. Special attention will be focused on the societal role of coaches and the influences they have with their athletes.
4. Biomechanical aspects of coaching
The program will emphasize practices, issues, and theories involving the scientific aspects of athletic performance including anatomy, kinesiology and physiology.
5. Strategies and technical aspects of coaching
The program will emphasize practices, issues, and theories involved in the organization and strategies of sport and the techniques of coaching basic skills of sport.
6. Professional preparation and practicum of coaching
The program will emphasize practices, issues, and theories regarding professional development in the coaching area and will culminate with a semester long practical field experience in their coaching area.

Student Learning Outcomes

1. Formulate a personal coaching philosophy and objectives.
2. Explain the different coaching styles.
3. Adhere to the code of ethics that guides coaches in the profession.
4. Demonstrate an understanding of the communication process involving the coach and players.
5. Plan a season practice and competition program involving an individual or team sport.
6. Demonstrate an understanding of technical and tactical skills in team sports.
7. Explain the nature of physical fitness and nutrition in relationship to enhanced performance.
8. Discuss the physiological, psychological and sociological values of sports participation.
9. Discuss the cultural aspects of sports including leisure purpose and recreation, classification of recreation, sports and education, co-recreation, sports and discrimination, and sportsmanship.
10. Discuss the risk management and legal aspects surrounding coaching.

Required Courses

- ATH 101 - Athletic Training Seminar I 2 Hour(s)
- ATH 101L - Athletic Training Seminar I Lab 0 Hour(s)
- HED 101 - Intro to Health Care Skills 1 Hour(s)
- PED 110 - Basic Weight Training Instruction 1 Hour(s)
- PED 110L - Basic Weight Training Instruction Laboratory 0 Hour(s)
- PED 120 - Fundamental Motor Development 2 Hour(s)
- PED 208 - Organization and Administration of Physical Activities/Athletics 2 Hour(s)

- PED 311 - Team Sports and Officiating 3 Hour(s)
and
- PED 311L - Team Sports and Officiating Laboratory 0 Hour(s) **or**
- PED 312 - Individual/Dual and Lifetime Activities 3 Hour(s)
and
- PED 312L - Individual/Dual and Lifetime Activities Laboratory 0 Hour(s)

- PED 320 - Coaching Theory 2 Hour(s)
- PED 321 - Coaching Practicum 4 Hour(s)

- PED 421 - Psycho-Social Aspects of Physical Activity 4 Hour(s)

Computer Science Minor

Required Core Courses (16 Credits)

- CSC 110 - Problem Solving through Programming 4 Hour(s)
- CSC 111 - Introduction to JAVA 4 Hour(s)
- CSC 226 - Data Structures using JAVA 4 Hour(s)
- CSC 351 - Database Design and Implementation 4 Hour(s)

Choose Two Courses from the Following List

- CSC 240 - Computer Organization and Architecture 4 Hour(s)
- CSC 303 - Network Protocols 4 Hour(s)
- CSC 307 - Operating Systems and Web Master Fundamentals-Unix/Linux Apache 4 Hour(s)
- CSC 319 - World Wide Web Programming 4 Hour(s)
- CSC 323 - Programming Languages 4 Hour(s)
- CSC 341 - Software Design and Development 4 Hour(s)
- CSC 353 - Mobile Application Development 4 Hour(s)
- CSC 431 - Artificial Intelligence 4 Hour(s)
- CSC 440 - Software Engineering 4 Hour(s)

Area of Interest

It is recommended that student refer to the following list to choose two courses based on an area of interest:

Web Development

- CSC 319 - World Wide Web Programming 4 Hour(s)
- CSC 353 - Mobile Application Development 4 Hour(s)

Software Engineering

- CSC 341 - Software Design and Development 4 Hour(s)
- CSC 440 - Software Engineering 4 Hour(s)

Computer Science Core

- CSC 323 - Programming Languages 4 Hour(s)
- CSC 421 - Algorithms 4 Hour(s)

Creative Writing Minor

Required Courses (8 Credits)

- ENG 206 - Fiction Writing 4 Hour(s)
- ENG 207 - Poetry Writing 4 Hour(s)

Choose Two of the Following (8 Credits)

Students must choose two of the following (8 credits total):

- ENG 205 - Interactive Fiction Writing: Stories and Games for Online Environments 4 Hour(s)
- ENG 333 - Advanced Creative Writing 4 Hour(s)
- ENG 350 - Literary Magazine Publishing 4 Hour(s)

Note:

all credits must be unique to the minor.

Criminal Justice Minor

Core Courses

- CRJ 103 - Introduction to Criminal Justice 4 Hour(s)
- CRJ 212 - Criminology 4 Hour(s)

Two Electives from the Following:

- CRJ 204 - Criminal Law 4 Hour(s)
- CRJ 213 - Race and Ethnicity Studies in Criminal Justice 4 Hour(s) **or**
- SOC 213 - Race and Ethnicity Studies in Sociology 4 Hour(s)
- CRJ 224 - Dynamics of Terrorism 4 Hour(s)
- CRJ 229 - Understanding Violence 4 Hour(s)
- CRJ 250 - Dissecting Truths of the Criminal Justice System 4 Hour(s)
- CRJ 252 - Law Enforcement and Justice 4 Hour(s)
- CRJ 291 - Special Topics in Criminal Justice 4 Hour(s)

One Elective from the Following:

- CRJ 307 - Corrections, Policy and Justice 4 Hour(s)
- CRJ 319 - Juvenile Delinquency 4 Hour(s)
- CRJ 323 - Court processes, decisions, and ethics 4 Hour(s)
- CRJ 332 - White Collar and Environmental Crime 4 Hour(s) **or**
- SOC 332 - White Collar and Environmental Crime 4 Hour(s)

- CRJ 340 - Victims and Victimology 4 Hour(s)
- CRJ 345 - Women, Gender, and Crime 4 Hour(s)

Economics Minor

Contact People

Dennis Debrecht, Associate Professor (ddebrech@carrollu.edu)

Carol Tallarico, Professor (ctallari@carrollu.edu)

Required Courses (16 Credits)

- ECO 124 - Principles of Economics I - Microeconomics 4 Hour(s)
- ECO 225 - Principles of Economics II - Macroeconomics 4 Hour(s)
- ECO 306 - Microeconomic Theory 4 Hour(s)
- ECO 307 - Macroeconomic Theory 4 Hour(s)

Choose 4 or More Credit Hours from the Following:

- ECO 314 - Econometrics 4 Hour(s)
- ECO 343 - Money and Banking 4 Hour(s)
- ECO 363 - International Economics 4 Hour(s)

Educational Studies Minor

The Educational Studies minor introduces education, in a broad sense, as a significant cultural function in society. Using education as a lens, this minor facilitates the development of the 21st century skills necessary for success in a variety of professions. Students develop knowledge, skills, and dispositions to be effective in a wide-range of careers that require strong interpersonal communication, understanding of development and learning, and a multicultural and global perspective on society. This minor provides a marketable complement to many majors across campus.

Students completing the Educational Studies minor are able to apply the coursework toward the Educational Studies major or an Elementary Education major or Secondary Education major, if they choose to complete one of these programs. Please note that students who complete this minor will not meet the competencies necessary to be endorsed for a Wisconsin teaching license.

Required Courses:

- EDU 102 - Exploration in Education and Society 4 Hour(s)
- EDU 202 - Intercultural Context in Education 4 Hour(s)
- EDU 203 - Educational Psychology 4 Hour(s)
- EDU 395 - Design, Development and Delivery of Educational Programs 4 Hour(s)

Electives

(Select a minimum of 4 credits)

- EDU 249 - Development, Observation, and Assessment 4 Hour(s)
- EDU 261 - Introduction to Inclusive Education 4 Hour(s)
- EDU 302 - Educational Advocacy 4 Hour(s)
- EDU 290 - Instructional Design for the Early Adolescent/Adolescent Learner 2 Hour(s)
- EDU 360 - Teaching and Learning with English Language Learners 2 Hour(s)

English Minor

Students must take six courses in English (excluding ENG 170 and ENG 140).

At least 8 credits must be at the 300-level in English and no more than 8 credits may be at the 100-level.

Requirements

Students seeking certification with an English minor must take the following:

- ENG 264 - American Indian Literature and Spirituality 4 Hour(s) **or**
- ENG 165 - Cultural Explorations of Race, Gender, and Class 4 Hour(s) **or**
- ENG 210 - African American Literature 4 Hour(s) **or**
- ENG 226 - Africa: Literature and Culture of Its Many Nations 4 Hour(s) **or**
- ENG 255 - Postcolonial Literature and Theory 4 Hour(s)

- ENG 214 - Global Film Theory and Criticism 4 Hour(s) **or**
- ENG 288 - Images that Speak: Visual Culture before "talking films" 4 Hour(s)

- ENG 219 - Introduction to Linguistics 4 Hour(s)

- ENG 240 - British Literature I - Medieval to 1700 4 Hour(s) **or**
- ENG 304 - Shakespeare: From Stage to Screen 4 Hour(s)

- ENG 242 - American Literature - 1620 to Contemporary 4 Hour(s)
- ENG 305 - Advanced Exposition and the Rhetorical Tradition 4 Hour(s)

Link to Film and Television Minor

For more information on the Film and Television Minor, [click here](#).

Link to the Video Game Studies Minor

For more information on the Video Game Studies Minor, [click here](#).

Environmental Science Minor

Earth Science

- ENV 105 - Earth Science 4 Hour(s)
- ENV 105L - Earth Science Laboratory 0 Hour(s)
- ENV 150 - Climate Science 4 Hour(s)
- ENV 150L - Climate Science Laboratory 0 Hour(s)
- ENV 325 - Soils and Hydrology 4 Hour(s)
- ENV 370 - Earth Surface Processes 4 Hour(s)
- ENV 370L - Earth Surface Processes Laboratory 0 Hour(s)
- PHY 105 - Astronomy 4 Hour(s)

Environmental Studies

- ENV 120 - Conservation and Environmental Improvement 4 Hour(s)
- ENV 120L - Conservation and Environmental Improvement Laboratory 0 Hour(s)
- ENV 222 - Environmental Sustainability 4 Hour(s)
- ENV 252 - Contemporary Issues in Environmental Science 2 Hour(s)
- PHI 192 - Environmental Ethics 4 Hour(s)

In Addition

In addition complete one of the following paired course sequences:

- POL 155 - Contemporary Global Politics 4 Hour(s)
and
- POL 332 - Public Policy 4 Hour(s)
- CRJ 103 - Introduction to Criminal Justice 4 Hour(s)
and
- SOC 202 - Society and Ecology 4 Hour(s)

Natural Resource Management

- BIO 120 - General Biology I 4 Hour(s)
- BIO 120L - General Biology I Laboratory 0 Hour(s)
- ENV 120 - Conservation and Environmental Improvement 4 Hour(s)
- ENV 120L - Conservation and Environmental Improvement Laboratory 0 Hour(s)
- ENV 201 - Problem Solving in Environmental Systems 4 Hour(s)
- ENV 277 - Natural Resource Management 4 Hour(s)

In Addition

In addition complete two of the following courses:

- ANB 302 - Winter Ecology of Wolf and Lynx 3 Hour(s)
- ENV 367 - Geographic Information Systems 4 Hour(s)
and
- ENV 455 - Watershed Management 4 Hour(s)

- BIO 333 - Ecology 4 Hour(s)
and
- BIO 333L - Ecology Laboratory 0 Hour(s)
- BIO 360 - Aquatic Ecology 4 Hour(s)
and
- BIO 360L - Aquatic Ecology Laboratory 0 Hour(s)
- BIO 462 - Conservation Biology 4 Hour(s)

Film and Television Minor

Jennifer Dobby	Senior Lecturer Chair, Department of Visual and Performing Arts
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Program Goal:

To understand the economic, social, political, ideological and global contexts of screen media in order to cement the marketability and importance of film and television expertise within a breadth of industries.

Upon graduation, a Film and Television Minor will:

1. Understand the history, theory and production of film and television, as well as the emerging technological platforms in the field.
2. Receive hands-on training in writing, editing and producing innovative screen media: short films, television spots or commercials, music videos and computer animation.
3. Critically analyze the economic and political impact of film and television on individuals and society, and understand how to work within a global media culture.
4. Acquire crucial business skills such as budgeting, marketing and project/personnel management.
5. Grow a portfolio of written and on-screen work to take into the job market or screen industries.

Course of Study (24 Credits)

- COM 101 - Principles of Communication 4 Hour(s) or
- COM 140 - Media Literacy 4 Hour(s)
- ENG 214 - Global Film Theory and Criticism 4 Hour(s)
- ENG 288 - Images that Speak: Visual Culture before "talking films" 4 Hour(s) or
- COM 317 - Communication Criticism 4 Hour(s)
- THE 311 - Acting for the Camera 2 Hour(s) or
- THE 312 - Directing for the Camera 2 Hour(s)
- THE 313 - Writing the Short Film 4 Hour(s) or
- THE 314 - Writing for Television 4 Hour(s)
- GRC 330 - Video and Motion Graphics 4 Hour(s)
- THE 490 - Theatre Projects 2 Hour(s)

Fall

- COM 101 - Principles of Communication 4 Hour(s)
- COM 140 - Media Literacy 4 Hour(s)
- ENG 288 - Images that Speak: Visual Culture before "talking films" 4 Hour(s) (Odd)
- THE 311 - Acting for the Camera 2 Hour(s) (Even)
- THE 312 - Directing for the Camera 2 Hour(s) (Odd)
- GRC 330 - Video and Motion Graphics 4 Hour(s)

Spring

- COM 101 - Principles of Communication 4 Hour(s)
- COM 317 - Communication Criticism 4 Hour(s)
- THE 313 - Writing the Short Film 4 Hour(s) (Even)
- THE 314 - Writing for Television 4 Hour(s) (Odd)
- THE 490 - Theatre Projects 2 Hour(s)

Finance Minor

Contact Person

Gregory Kuhlemeyer, Professor (gkuhleme@carrollu.edu)

Required Courses (8 Credits)

- BUS 101 - Introduction to Business 4 Hour(s)
- BUS 304 - Principles of Finance 4 Hour(s)

Choose 8 or More Credit Hours from the Following:

- BUS 341 - Applied Risk Management 4 Hour(s)
- BUS 342 - Investment Management 4 Hour(s)
- BUS 344 - Management of Financial Institutions 4 Hour(s)

French Minor

Jessica Boll Associate Professor of Spanish

Elena M. DeCosta Associate Professor of Spanish

The Modern Languages program offers a major in Spanish and minors in French and Spanish.

A student successfully completing a French minor at Carroll University:

1. Attains intermediate/advanced to advanced-level speaking, listening, writing, reading proficiency.

2. Is able to express her/himself in written and spoken French in most everyday situations with mistakes that do not hinder meaning.
3. Understands French-speaking individuals in most everyday situations, as well as written materials in French covering topics in various genres.
4. Is knowledgeable with regard to histories, cultures, customs, major political and literary events and movements, and contemporary society and issues in countries where French is the dominant language.
5. Has participated throughout her/his studies in academic, cultural or social activities off-campus, in and beyond the Carroll University and Waukesha communities, ideally through study abroad or substantial immersion experience in the target language.

Core Courses

- FRE 201 - Intermediate French I 4 Hour(s)
- FRE 202 - Intermediate French II 4 Hour(s)
- FRE 301 - Conversation & Composition 4 Hour(s)
- FRE 307 - French Civilization 4 Hour(s)
- FRE 318 - Topics in French and Francophone Literatures 4 Hour(s)

Note:

The Paris NCEP may not be used to complete the minor.

The Education department requires students seeking MC-EA (Middle Childhood through Early Adolescence) or EA-A (Early Adolescence through Adolescence) licensure in French to complete EDU 355 - Special Methods in Teaching Elementary and Secondary Subjects.

Global Studies Minor

To complete a minor in Global Studies, students will take the 3 core courses and then choose 3 electives from one of the tracks in the Global Studies major with 2 of the 3 being courses at the 200 or 300 level.

A student interested in international business is able to pursue both an emphasis in Business and a Global Studies minor with an emphasis in international business. Regardless of track/emphasis, all students are required to take the core courses.

Core Courses

- POL 103 - Politics of the World's Nations 4 Hour(s)
- POL 155 - Contemporary Global Politics 4 Hour(s)
- POL 276 - Democracy, Globalization, and International Governance 4 Hour(s)

Cross Cultural Development

For a complete list of CCD courses, [click here](#).

Graphic Design Minor

Requirements (20 Credits)

- ART 209 - Photography I 4 Hour(s)
- GRC 106 - Intro-Communication Technology 2 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 200 - Color and Typography 4 Hour(s)
- GRC 210 - History of Graphic Design 2 Hour(s)
- GRC 320 - Intro to Multimedia Production 4 Hour(s)

Health and Human Experience Minor

Mission and Program Goals

Mission: The mission of the Health and Human Experience minor is to educate, in an interdisciplinary approach, pre-professional students interested in pursuing graduate study or employment in a healthcare discipline. The American Medical Society has embraced the need for practitioners that are well versed in the many "ways of knowing." This change in philosophy is due to the recognition that there is a growing need for healthcare professionals to work as an interdisciplinary team and to respond to patients more holistically through addressing their social and mental health as well as their physical health. To address this need, this minor has been designed to educate students in interdisciplinary, humanistic, and cultural approaches to the study of health in modern society.

Goals: To educate pre-professional students in an interdisciplinary, humanistic, and cultural approach to the study of health in modern society

Program Learning Outcomes (Student Learning Outcomes)

Health and the Human Experience minor students will be able to study/analyze/make decisions about health and medicine through;

1. Demonstrating a basic knowledge of the human body (at the molecular, biochemical, and organismal levels) that can be applied during subsequent didactic work, as well as in future clinical screening for, evaluation of, decision making regarding, and treatment of disease processes
2. Articulating evidence-based implications at the interpersonal and/or sociological levels.
3. Analyzing multiple ethical, philosophical, and religious positions for use as critical tools for making health decisions.
4. Exhibiting the ability to use literary and/or historical artifacts to examine issues in the health and human experience.

Coursework (25 Credits)

Students must take 6 courses (24 credits) plus capstone (1 credit)

* Students must take at least one course, but no more than two courses, from each category. Students may not enroll in courses that meet requirements for their major (this includes required support courses). Students must take at least one ANP course from the Science category.

Humanities

- ENG 165 - Cultural Explorations of Race, Gender, and Class 4 Hour(s)

- PHI 207 - History and Philosophy of Science 4 Hour(s)
- ENG 199 - Reading and Writing in the Sciences 4 Hour(s)

Sciences

- ANP 130 - Introduction to Human Anatomy and Physiology I 4 Hour(s)
- ANP 130L - Intro to Human Anatomy and Phys I Lab 0 Hour(s)
- ANP 140 - Introduction to Human Anatomy and Physiology II 4 Hour(s)
- ANP 140L - Intro to Human Anatomy and Phys II Lab 0 Hour(s)
- ANP 402 - Human Anatomy 4 Hour(s)
- ANP 402L - Human Anatomy Laboratory 0 Hour(s)
- ANP 403 - Human Physiology 4 Hour(s)
- ANP 403L - Human Physiology Laboratory 0 Hour(s)
- CHE 101 - General Chemistry 4 Hour(s)
- CHE 101L - General Chemistry Laboratory 0 Hour(s)
- CHE 102 - Biological Chemistry 4 Hour(s)
- CHE 102L - Biological Chemistry Laboratory 0 Hour(s)
- CHE 109 - Principles of Chemistry I 4 Hour(s)
- CHE 109L - Principles of Chemistry I Laboratory 0 Hour(s)
- CHE 110 - Principles of Chemistry II 4 Hour(s)
- CHE 110L - Principles of Chemistry II - Laboratory 0 Hour(s)

Social Health

- COM 200 - Interpersonal Communication 4 Hour(s)
- COM 207 - Intercultural Communication 4 Hour(s)
- COM 290 - Intro to Health Communication 4 Hour(s)
- SOC 102 - Sociology of Social Problems 4 Hour(s)
- SOC 215 - Social Gerontology 4 Hour(s)

Values and Ethics

- PHI 106 - Ethics, Values and Judgment 4 Hour(s)
- PHI 194 - Bioethics 4 Hour(s)
- PHI 206 - Ethics 4 Hour(s)
- REL 210 - Suffering and Hope 4 Hour(s)
- REL 220 - Health and Religion 4 Hour(s)

Capstone

- HSC 499 - Health and Human Experience Capstone 1 Hour(s)

Health Education Minor

This minor provides a basic foundation for students desiring preparation in health promotion and disease prevention. The minor in health education may be used in combination with many majors to enhance a student's career opportunities and as preparation

to deliver health promotion programs in a variety of settings. . Completion of the minor along with a teaching certifiable major leads to certification in health education.

Required Courses (19 Credits)

- HED 101 - Intro to Health Care Skills 1 Hour(s)
- HED 201 - Nutrition 2 Hour(s)
- HED 202 - Drugs, Society and Human Behavior 2 Hour(s)
- HED 204 - Human Sexuality 2 Hour(s)
- HED 205 - Community Mental Health 2 Hour(s)
- HED 323 - School Health Programs 2 Hour(s)
- HED 353 - Special Methods in Teaching Health Education 4 Hour(s)

Healthcare Administration Minor

Contact Person

Sarah Esveldt, Senior Lecturer (sesveldt@carrollu.edu)

Required Courses (14 Credits)

- BUS 101 - Introduction to Business 4 Hour(s)
- HCA 100 - Health Care Terminology 2 Hour(s)
- HCA 150 - Introduction to Health Care 4 Hour(s)
- HCA 300 - Health Care Management 4 Hour(s)

Choose Two Courses from the Following:

- HCA 200 - Health Care Economics and Policy 4 Hour(s)
- HCA 350 - Health Care Law and Ethics 4 Hour(s)
- HCA 400 - Health Care Financial Management 4 Hour(s)
- HCA 450 - Health Care Information Management 4 Hour(s)
- COM 290 - Intro to Health Communication 4 Hour(s)

History Minor

One Course in Each Area

Three courses, with one course in each area, from the following:

A

- HIS 103 - Roots of the Western World 4 Hour(s)
- HIS 104 - Europe and the Modern World 4 Hour(s)

B

- HIS 105 - America to 1877 4 Hour(s)
- HIS 106 - America since 1877 4 Hour(s)

C

- HIS 107 - Understanding the Premodern World 4 Hour(s)
- HIS 108 - Understanding Our Contemporary World 4 Hour(s)
- HIS 110 - History of Modern China 4 Hour(s)
- HIS 112 - Intro to Latin America History 4 Hour(s)

Three Additional Courses

Three additional courses at the 200-and 300-course levels. One of those three courses must be a 300-level research course and not all of them may be taken in United States History.

Information Technology Minor

Required Core Courses (20 Credits)

- CSC 110 - Problem Solving through Programming 4 Hour(s)
- CSC 220 - Information Systems 4 Hour(s)
- CSC 240 - Computer Organization and Architecture 4 Hour(s)
- CSC 303 - Network Protocols 4 Hour(s)
- CSC 409 - Information Technology Mgmt in an E-Commerce World 4 Hour(s)

Choose One Elective from the Following List:

- CSC 307 - Operating Systems and Web Master Fundamentals-Unix/Linux Apache 4 Hour(s)
- CSC 319 - World Wide Web Programming 4 Hour(s)
- CSC 351 - Database Design and Implementation 4 Hour(s)
- CSC 353 - Mobile Application Development 4 Hour(s)

Liberal Arts Communication Minor

Requirements

- COM 101 - Principles of Communication 4 Hour(s)
- Three elective four-credit courses in Communication

One of the following:

- COM 317 - Communication Criticism 4 Hour(s)

- COM 319 - Communication Theory 4 Hour(s)
- COM 350 - Communication Law 4 Hour(s)
- COM 370 - Communication Technology and Society 4 Hour(s)

Link to Film and Television Minor

For more information on the Film and Television Minor, [click here](#).

Management and Leadership Minor

Contact Person

Mary Ann Wisniewski, Professor (mwisniew@carrollu.edu)

Required Courses (8 Credits)

- BUS 101 - Introduction to Business 4 Hour(s)
- BUS 302 - Principles of Management 4 Hour(s)

Choose 8 or More Credit Hours from the Following:

- BUS 265 - Human Resource Management 4 Hour(s)
- BUS 479 - Consulting Management 4 Hour(s)
- LEA 190 - Leadership and Personal Effectiveness 4 Hour(s)
- LEA 302 - Leadership Theory and Practice 4 Hour(s)
- LEA 499 - Leading Change 4 Hour(s)

Marketing Minor

Contact People

Michael Levas, Associate Professor (mlevas@carrollu.edu)

Shaoqiong (Annie) Zhao, Assistant Professor (szhao@carrollu.edu)

Required Courses (8 Hours)

- BUS 101 - Introduction to Business 4 Hour(s)
- BUS 301 - Principles of Marketing 4 Hour(s)

Choose 8 or More Credit Hours from the Following:

- BUS 320 - Promotion Management 4 Hour(s)

- BUS 327 - Business to Business Marketing 4 Hour(s)
- BUS 400 - Digital and Social Media Marketing 4 Hour(s)
- BUS 435 - Marketing Research 4 Hour(s)

Mathematics Minor

Requirements

- MAT 160 - Calculus I 4 Hour(s)
- MAT 161 - Calculus II 4 Hour(s)

Other Requirements

Three additional courses in Mathematics at the 200-level or higher excluding:

- MAT 201 - Foundations of Elementary Mathematics II 4 Hour(s)

Mathematics Minor, Elementary Education

As a future elementary school teacher you can combine your major with this marketable mathematics minor designed for elementary education students. You will enhance your qualifications to teach elementary school mathematics by studying proof-writing, problem solving, introductory geometry and algebra, probability, statistics, computational thinking, and data analysis, among other subjects.

Requirements

- MAT 104 - Foundations of Elementary Mathematics I 4 Hour(s)
- MAT 140 - Calculus and Its Applications 4 Hour(s) **or**
- MAT 160 - Calculus I 4 Hour(s)
- MAT 201 - Foundations of Elementary Mathematics II 4 Hour(s)
- MAT 206 - Transition to Adv Mathematics 4 Hour(s)
- MAT 305 - Modern Geometry 4 Hour(s)
- CMP 112 - Computational Thinking I 4 Hour(s)

Medieval and Renaissance Studies Minor

The Medieval and Renaissance eras were periods of great change in European society. Many of the components of our modern world developed during these periods, from ideas such as the contract theory of government to institutions such as the Catholic Church, Parliament, and universities. This interdisciplinary minor integrates approaches from various areas of scholarship within the humanities, such as history, philosophy, English, and religious studies, to allow students to develop a holistic understanding of Medieval and Renaissance Europe.

Program Administration

Students minoring in Medieval and Renaissance Studies should meet with an advisor who teaches courses within the minor, in order to assure that requirements are met.

Mission and Program Goals

Students will gain a broad understanding of the Medieval and Renaissance eras in European history, while learning the approach that scholars in the field take to understanding these eras.

Program Learning Outcomes

1. Develop an understanding of the history and culture of Medieval and Renaissance Europe.
2. Employ tools from a variety of disciplines to identify, explore, and explain socio-cultural problems during the period.
3. Understand the reception and impact of ideals from classical antiquity on medieval and Renaissance cultures.

Required Courses

The student in the Medieval and Renaissance Studies minor will be required to take five (5) courses, drawn from the following lists. Students must take at least one (1) class from each of the three areas of concentration (Literature, History, Religion and Philosophy):

Literature

- ENG 240 - British Literature I - Medieval to 1700 4 Hour(s)
- ENG 301 - Chaucer 4 Hour(s)
- ENG 304 - Shakespeare: From Stage to Screen 4 Hour(s)
- ENG 323 - Early Modern British Literature 4 Hour(s)

History

- HIS 225H - Medieval Europe, China, and the Islamic Crescent 4 Hour(s)
- HIS 254 - Scholars, Saints, and other Medieval Ne'er Do Wells 4 Hour(s)
- HIS 316 - Renaissance and Reformation Europe 4 Hour(s)

Religion and Philosophy

- PHI 322 - Great Ideas in the History of Philosophy 4 Hour(s)
- REL 230 - Foundations of Christianity 4 Hour(s)

Music Minor

Core Courses

6 Credits Applied Music (Lessons)

6 Semesters of Music Ensemble

- MUS 185 - Concert Choir 0 - 1 Hour(s) **or**
- MUS 188 - Wind Ensemble 0 - 1 Hour(s) **or**
- MUS 191 - Chamber Orchestra 0 - 1 Hour(s) **or**
- MUS 195 - Guitar Ensemble 0 - 1 Hour(s)

Choice of 2 of the Following:

(8 credits total)

- MUS 111 - Music Theory I 3 Hour(s)
and
- MUS 113 - Musicianship I 1 Hour(s)

- MUS 112 - Music Theory II 3 Hour(s)
and
- MUS 114 - Musicianship II 1 Hour(s)

- MUS 311 - Music History I - Classical Antiquity to the Classical Period 4 Hour(s)
- MUS 312 - Music History II - Nineteenth Century to the Present 4 Hour(s)

Philosophy Minor

Kevin Guilfooy	Associate Professor of Philosophy
Max Rondolino	Assistant Professor of Philosophy

Core Courses

- PHI 101 - Introduction to Philosophy 4 Hour(s)
- PHI 105 - Introduction to Logic 4 Hour(s)
- PHI 206 - Ethics 4 Hour(s)

Two Additional Philosophy Courses

Two additional philosophy courses; at least one must be at the 300 level

Photography Minor

Requirements

- ART 209 - Photography I 4 Hour(s)
- ART 215 - History of Photography 4 Hour(s)

- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)

Two of the Following Courses:

- ART 309 - Photography II - Fine Art 4 Hour(s)
- ART 310 - Photography II - Commercial 4 Hour(s)
- ART 314 - Photography II Studio Lighting 4 Hour(s)

Physics Minor

Core

- PHY 203 - General Physics I 4 Hour(s)
and
- PHY 203L - General Physics I Laboratory 0 Hour(s)
and
- PHY 204 - General Physics II 4 Hour(s)
and
- PHY 204L - General Physics II Laboratory 0 Hour(s) **or**
- PHY 101 - Introductory Physics I 4 Hour(s)
and
- PHY 101L - Introductory Physics Laboratory 0 Hour(s)
and
- PHY 102 - Introductory Physics II 4 Hour(s)
and
- PHY 102L - Introductory Physics Laboratory 0 Hour(s)

Two of the Following

- PHY 301 - Electricity and Magnetism 4 Hour(s)
and
- PHY 301L - Electricity and Magnetism Laboratory 0 Hour(s)
- PHY 303 - Modern Physics 4 Hour(s)
and
- PHY 303L - Modern Physics Laboratory 0 Hour(s)
- PHY 304 - Classical Mechanics 4 Hour(s)
- PHY 320 - Thermodynamics 4 Hour(s)

Political Science Minor

Requirements (20 Credits)

- POL 103 - Politics of the World's Nations 4 Hour(s)
- POL 141 - Intro to American Politics 4 Hour(s)

- Plus three additional Politics courses

Professional Writing Minor

Required Course (4 Credits)

- ENG 120 - Introduction to Professional Writing 4 Hour(s)

Three of the Following Courses:

Students must complete three of the following courses (12 credits total):

- ENG 199 - Reading and Writing in the Sciences 4 Hour(s)
- ENG 230 - Grant Writing 4 Hour(s)
- ENG 260 - Professional Writing in the Public Sphere 4 Hour(s)
- ENG 305 - Advanced Exposition and the Rhetorical Tradition 4 Hour(s)
- ENG 350 - Literary Magazine Publishing 4 Hour(s)

Psychology Minor

Requirements

- PSY 101 - Introductory Psychology 4 Hour(s)

Additional Coursework

A minimum of 16 additional Psychology (PSY) credits, excluding PSY 398. (Cannot include both PSY 206 and PSY 221 .)

At least one elective must be 300-level or higher. Twenty credits are required as a minimum.

Public Health Minor

Core Courses

The Public Health minor will utilize core public health courses while potentially fulfilling some General Education requirements. This minor helps the undergraduate gain an understanding of important local, national, and global public health issues giving additional diversity to their current course of study.

- HED 206 - Taking Charge of Your Health and Wellbeing 2 Hour(s)
- PBH 101 - Introduction to Public Health 4 Hour(s)
- PBH 102 - Global Health 4 Hour(s)
- PBH 210 - Public Health for Communities 4 Hour(s)
- PBH 324 - Program Development, Assessment, and Evaluation in Public Health 4 Hour(s)
- PBH 421 - Epidemiology 4 Hour(s)

Religious Studies Minor

Two Introductory Courses (100 Level)

- REL 103 - Intro to the New Testament 4 Hour(s)
- REL 106 - Understanding Religion 4 Hour(s)

One Course in Christian Tradition

- REL 201 - Jesus of Nazareth 4 Hour(s)
- REL 202 - Religious Traditions in America 4 Hour(s)
- REL 210 - Suffering and Hope 4 Hour(s)
- REL 230 - Foundations of Christianity 4 Hour(s)

- REL 291 - Topics in Religious Studies 4 Hour(s) **or**
- REL 391 - Topics in Religious Studies 4 Hour(s)

- REL 310 - Powers, Politics, and Pluralism in Biblical Interpretation 4 Hour(s)

One in Religious Traditions

- REL 315 - Women in Religion 4 Hour(s)
- REL 220 - Health and Religion 4 Hour(s)
- REL 206 - Asian Religions 4 Hour(s)
- REL 216 - Judaism, Christianity, and Islam 4 Hour(s)

One Elective in Religion or Philosophy, 300 or Above

Sociology Minor

Requirements (20 Credit Hours)

- SOC 101 - Introduction to Sociology 4 Hour(s)
- SOC 308 - Sociological Theory 4 Hour(s)
- **Plus three additional 4-credit elective 100-, 200-, or 300-level courses in Sociology**

Sociology of Sustainability Minor

Requirements

- SOC 101 - Introduction to Sociology 4 Hour(s)
- SOC 202 - Society and Ecology 4 Hour(s)

- SOC 266 - Methods of Social Science Research 4 Hour(s) **or**

- SOC 308 - Sociological Theory 4 Hour(s)
- SOC 302 - Complex Organizations and Work Life 4 Hour(s)
- ENV 120 - Conservation and Environmental Improvement 4 Hour(s)
- ENV 120L - Conservation and Environmental Improvement Laboratory 0 Hour(s)
- ENV 222 - Environmental Sustainability 4 Hour(s)

Spanish Minor

Jessica Boll Associate Professor of Spanish

Elena M. DeCosta Associate Professor of Spanish

The Modern Languages program offers a major in Spanish and minors in French and Spanish.

Core Courses

- SPA 201 - Intermediate Spanish I 4 Hour(s)
- SPA 202 - Intermediate Spanish II 4 Hour(s)
- SPA 301 - Conversation and Composition I 4 Hour(s)
- SPA 401 - Advanced Conversation 2 Hour(s)

300-Level Elective

(choose 2)

- SPA 300 - Hispanic Linguistics 4 Hour(s)
- SPA 305 - Spanish for the Professions 4 Hour(s)
- SPA 307 - Latin American Civilization 4 Hour(s)
- SPA 308 - Hispanic Civilization 4 Hour(s)
- SPA 309 - Introduction to Hispanic Literature 4 Hour(s)
- SPA 311 - Medical Spanish 4 Hour(s)
- SPA 319 - Hispanic Cultural Studies through Journalism and Literature 4 Hour(s)

Note:

The Education Department requires students seeking MC-EA (Middle Childhood through Early Adolescence) or EA-A (Early Adolescence through Adolescence) licensure in Spanish to complete EDU 355 - Special Methods in Teaching Elementary and Secondary Subjects.

Theatre Arts Minor

The Theatre Arts minor is intended for students who are interested in participating in theatre production, both onstage and off.

Core Courses

- THE 100 - Theatre Participation 1 Hour(s)
and/or
- THE 300 - Theatre Practicum 1 Hour(s)
- THE 101 - Introduction to Theatre Arts 4 Hour(s) **or**
- THE 102 - Introduction to Performance 4 Hour(s)
- THE 120 - Costume Construction & Makeup 2 Hour(s) **or**
- THE 121 - Set Construction & Lighting 2 Hour(s)
- THE 215 - Theatre History and Literature I 4 Hour(s) **or**
- THE 216 - Theatre History and Literature II 4 Hour(s)
- THE 307 - Directing for the Stage 4 Hour(s) **or**
- THE 308 - Writing for the Stage 4 Hour(s)

Note:

To fulfill the minor requirements, students must take a total of 2 credits in THE 100 and/or THE 300.

In Addition

Theatre minor students are required to take 4 credits from the following advanced theatre courses:

- THE 200 - Theatre Workshops 1 - 2 Hour(s)
- THE 260 - Arts Management 4 Hour(s)
- THE 301 - Contemporary Acting Styles 4 Hour(s)
- THE 302 - Period Acting Styles 4 Hour(s)
- THE 307 - Directing for the Stage 4 Hour(s)
- THE 308 - Writing for the Stage 4 Hour(s)
- THE 291 - Special Studies/Topics in Theatre 1 - 4 Hour(s) **or**
- THE 391 - Special Studies/Topics in Theatre 1 - 4 Hour(s)
- THE 380 - Internship in Theatre Arts 1 - 4 Hour(s) **or**
- THE 480 - Internship in Theatre Arts 1 - 4 Hour(s)
- THE 390 - Theatre Projects 1 - 4 Hour(s) **or**
- THE 490 - Theatre Projects 2 Hour(s)

Video Game Studies Minor

The Video Game Studies minor is for students to both analyze and create video games. Game Studies is a burgeoning academic field, and rightly so, as the global video game industry's revenues are more than triple those for the film industry. But the field is still in its infancy, which offers students the opportunity to be on the leading edge of an academic pursuit that combines humanities and the fine arts. This minor will allow students to become more thoughtful consumers of video games and also participate in the larger creation and criticism of them should they so choose.

Upon successful completion of the Video Game Studies minor, students will be able to:

1. Describe the formal elements that comprise a video game and analyze how those elements are used to contribute to a game's effects, communications, and meanings.
2. Analyze how video games (either isolated examples or broader genres) impact the societies and cultures in which they are played, as well as how those societies and cultures impact the games that are made and how they are received.
3. Create original video games that demonstrate sound game design principles and generate meanings beyond "mere" entertainment.
4. Demonstrate competency in a selected track of video game design and/or theory: art and graphics; music, sound, and voice; writing; or criticism.
5. Answer from many different perspectives: What is a video game?

Required Courses (14 Credits)

- COM 370 - Communication Technology and Society 4 Hour(s)
- ENG 115 - Video Game Creation and Design 4 Hour(s)
- ENG 215 - Video Game Studies 4 Hour(s)
- ENG 415 - Video Game Projects 2 Hour(s)

Tracks

Choose one track, then choose two courses within the track.

- Art and Graphics
- Music, Sound, and Voice
- Writing
- Criticism

Web Design Minor

Requirements (16 Credits)

- GRC 106 - Intro-Communication Technology 2 Hour(s)
- GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1 4 Hour(s)
- GRC 200 - Color and Typography 4 Hour(s)
- GRC 320 - Intro to Multimedia Production 4 Hour(s)

Women and Gender Studies Minor

Pascale Engelmajer	Associate Professor of Religious Studies
Jennifer Dobby	Senior Lecturer in Theatre Arts
Lilly Goren	Professor of Political Science
Jennifer L. Huck	Associate Professor of Criminal Justice

Rebecca Imes	Associate Professor of Communication
Lara Karpenko	Associate Professor of English
Abigail Markwyn	Associate Professor of History
Kelly Pinter	Lecturer of Criminal Justice and Sociology

Women and gender studies creates an awareness of the role gender plays in human interactions, in the creation of societal institutions, and in the rankings of individuals within those institutions. Interdisciplinary in its approach to learning, courses in Women and Gender Studies enrich students' perspectives on a variety of disciplines and provide a critical skill to those interested in understanding the dynamics of human behavior.

Learning Objectives

These learning objectives will be assessed in the interdisciplinary capstone course.

1. Apply social scientific lenses including, sociology, criminology communication, and political science to the roles of sex and gender in historical and contemporary life.
2. Demonstrate an understanding of the way that history, politics, religion, literature, or artistic works produce, reproduce, and challenge gender constructs across multiple eras and locales.
3. Apply comparative theories of gender to historical, global, and contemporary issues.
4. Demonstrate the ability to gather sources, analyze information, and produce an original work of research in one or more of the disciplines included in the minor.

Core Courses that Must be Taken:

One Social Science

- COM 235 - Gender and Society 4 Hour(s)
- SOC 235 - Gender and Society 4 Hour(s)
- CRJ 345 - Women, Gender, and Crime 4 Hour(s)
- WGS 345 - Women, Gender, and Crime 4 Hour(s)
- WGS 296 - Women, Gender, and Politics 4 Hour(s)

One Humanities

- ENG 262 - Introduction to Gender Studies 4 Hour(s)
- WGS 262 - Introduction to Gender Studies 4 Hour(s)
- HIS 213 - Women in American History 4 Hour(s)
- WGS 213 - Women in American History 4 Hour(s)
- REL 315 - Women in Religion 4 Hour(s)
- WGS 315 - Women and Religion 4 Hour(s)
- WGS 314 - Queer and Gender Theory 4 Hour(s)
- WGS 400 - Interdisciplinary Capstone 2 Hour(s)

Select Two Courses from the Following

Select two courses from the following which have not been taken as part of core:

- CRJ 345 - Women, Gender, and Crime 4 Hour(s) **or**
- WGS 345 - Women, Gender, and Crime 4 Hour(s)

- ENG 262 - Introduction to Gender Studies 4 Hour(s) **or**
- WGS 262 - Introduction to Gender Studies 4 Hour(s)

- HIS 213 - Women in American History 4 Hour(s) **or**
- WGS 213 - Women in American History 4 Hour(s)

- POL 280 - Politics and Culture 4 Hour(s)

- REL 315 - Women in Religion 4 Hour(s) **or**
- WGS 315 - Women and Religion 4 Hour(s)

- SOC 235 - Gender and Society 4 Hour(s) **or**
- COM 235 - Gender and Society 4 Hour(s)

- WGS 150 - Introduction to LGBTQ* Studies 4 Hour(s)
- WGS 296 - Women, Gender, and Politics 4 Hour(s)

Pre-Professional

Pre-Professional Programs

Students planning to pursue a graduate or professional program in a specific career track after earning a Carroll Bachelor degree have the opportunity to participate in pre-professional programming. Pre-programs are NOT majors; they are a declaration of intent to pursue professional school as well as directional paths of study and experience to prepare undergraduates for a specific industry or career.

*While pre-health students are free to select the undergraduate major that best suits them, they must complete the courses associated with the track in order to earn the emphasis at Carroll University. These courses will satisfy some prerequisite requirements for admission to most professional/graduate schools in that area. As these requirements vary by school, it is the student's responsibility to be aware of specific program requirements and to consult with a pre-health advisor for guidance.

Additional prerequisite course requirements may exist.

Specific advising and support in preparation to professional program application is available to students declaring a pre-professional track in one of the following areas:

Pre-Professional Programs

- Pre-Anesthesiologist Assistant
- Pre-Athletic Training
- Pre-Dentistry
- Pre-Exercise Physiology
- Pre-Medicine
- Pre-Occupational Therapy
- Pre-Pharmacy (General)

- Pre-Pharmacy (Medical College of Wisconsin, 3+3 Dual Degree Program)
- Pre-Pharmacy (Rosalind Franklin University, 3+4 Dual Degree Program)
- Pre-Physical Therapy
- Pre-Physician Assistant
- Pre-Podiatry
- Pre-Veterinary

Direct-Admit Programs

Pre-Athletic Training Direct-Admit

Curriculum

The entry-level Master of Athletic Training Program is a two-year, five semester program. It is divided into MSAT Year I and MSAT Year II.

During MSAT Year I, course work in athletic training begins at the 5000 level. The 5000-level courses present the basic, behavioral, professional and applied science foundations for the 6000-level courses in MSAT Year II. For students that enter the program with direct admission status bachelor's degrees are awarded to those individuals satisfying all relevant Carroll undergraduate requirements at the conclusion of the senior year/MSAT Year I.

At the conclusion of MSAT Year I, students move into the MSAT Year II, where 6000-level (summer, fall and spring terms of year five) courses in athletic training are offered. Knowledge gained in each course is integrated throughout subsequent courses. Athletic Training Program graduates participate in the University's Commencement ceremony in May.

Year 1

Fall Semester 16 Credits

- ATH 5402 - Athletic Training Seminar I 3 Hour(s)
- ATH 5402L - Athletic Training Seminar I Laboratory 0 Hour(s)
- ATH 5450 - Assessment and Evaluation I 2 Hour(s)
- ATH 5450L - Assessment and Evaluation I Laboratory 0 Hour(s)
- ATH 5460 - Athletic Training Practicum I 1 Hour(s)
- PTH 5401 - Statistical and Research Methods 3 Hour(s)
- PTH 5404 - Biomechanics 2 Hour(s)
- PTH 5404L - Biomechanics Laboratory 0 Hour(s)
- PTH 5406 - Exercise Physiology 2 Hour(s)
- PTH 5406L - Exercise Physiology Laboratory 0 Hour(s)
- PTH 5413 - Clinical Anatomy 3 Hour(s)

Spring Semester 16 Credits

- ATH 5455 - Assessment and Evaluation II 4 Hour(s)
- ATH 5455L - Assessment and Evaluation II Laboratory 0 Hour(s)
- ATH 5461 - Athletic Training Practicum II 2 Hour(s)
- PTH 5412 - Tests & Measures 3 Hour(s)

- PTH 5412L - Tests & Measures Laboratory 0 Hour(s)
- PTH 5414 - Advanced Kinesiology 3 Hour(s)
- PTH 5414L - Advanced Kinesiology Laboratory 0 Hour(s)
- PTH 5416 - Therapeutic Exercise 4 Hour(s)
- PTH 5416L - Therapeutic Exercise Laboratory 0 Hour(s)

Summary of Credits

- Pre-Professional Phase 96 credits
- Professional Year 1 32 credits

Pre-Athletic Training Emphasis with undergraduate major 128 credits.

See the Carroll University Graduate Catalog for descriptions of Master of Athletic Training (ATH) courses in Year 2 of the Entry-level Athletic Training Program.

Pre-Physical Therapy Direct-Admit

Curriculum

The entry-level Doctor of Physical Therapy program is a three year, eight semesters program. It is divided into DPT Year I, DPT Year II, and III.

During DPT Year I, course work in physical therapy begins at the 5000 level. The 5000-level courses present the basic, behavioral, professional and applied science foundations for the 6000-and 7000-level courses in DPT Year II and III. For students that enter the program with direct admission status Bachelor's degrees are awarded to those individuals satisfying all relevant Carroll undergraduate requirements at the conclusion of the senior year/DPT Year I.

At the conclusion of DPT Year I, students move into the graduate phase of the program, DPT Year II, where 6000-level (summer, fall and spring terms of year five) and 7000-level (summer, fall and spring terms of year six) courses in physical therapy are offered. Knowledge gained in each course is integrated throughout subsequent courses. Physical Therapy Program graduates participate in the University's Commencement ceremony in May.

Year I

Fall Semester 15 Credits

- PTH 5400 - Foundations of Professional Practice 2 Hour(s)
- PTH 5401 - Statistical and Research Methods 3 Hour(s)
- PTH 5404 - Biomechanics 2 Hour(s)
- PTH 5404L - Biomechanics Laboratory 0 Hour(s)
- PTH 5406 - Exercise Physiology 2 Hour(s)
- PTH 5408 - Introduction to Patient Management 3 Hour(s)
- PTH 5408L - Introduction to Patient Management Laboratory 0 Hour(s)

Spring Semester 15 Credits

- PTH 5405 - Neuroscience 3 Hour(s)
- PTH 5412 - Tests & Measures 3 Hour(s)

- PTH 5413 - Clinical Anatomy 3 Hour(s)
- PTH 5414 - Advanced Kinesiology 3 Hour(s)
- PTH 5414L - Advanced Kinesiology Laboratory 0 Hour(s)
- PTH 5416 - Therapeutic Exercise 4 Hour(s)
- PTH 5416L - Therapeutic Exercise Laboratory 0 Hour(s)
- PTH 5460 - Clinical Pathology 2 Hour(s)

Summary of Credits

- Pre-Professional Phase 98 credits
- Professional Year 1 30 credits

Pre-Physical Therapy Emphasis with undergraduate major 128 credits

See the Carroll University Graduate Catalog for descriptions of Physical Therapy (PTH) courses in Year 2 and 3 of the Entry-level Physical Therapy Program.

Courses

Accounting

ACC 100 - Personal Finance

2 Hour(s)

The objective of the course is to provide the student with the necessary information and decision-making tools needed to manage his/her personal financial plan. For elective credit only. Open to all majors.

FA only

ACC 205 - Financial Accounting

4 Hour(s)

A study of the accounting cycle and extensive coverage of various financial topics such as cash, receivables, inventory, liabilities, equity, plant/equipment, and financial statements.

FA and SP

ACC 206 - Managerial Accounting

2 Hour(s)

Study of the accounting data that aids in management decision making. Topics covered include budgeting, break-even, costing methods, ratio analysis, cash flow, pricing, and inventory control.

FA and SP

Prerequisite(s): ACC 205

ACC 207 - Intermediate Accounting I

4 Hour(s)

Study of the development of accounting standards underlying financial statements. An in-depth review of the income statement and balance sheet. Recognition, measurement and reporting of cash, receivables, inventory, plant assets, intangibles, liabilities, revenue recognition and present value analysis.

FA only

Prerequisite(s): ACC 205

ACC 208 - Intermediate Accounting II

4 Hour(s)

Recognition, measurement and reporting of stockholders' equity, earnings per share, cash flow, income tax allocation, pensions, leases, accounting changes, accounting errors and disclosure reporting.

SP only

Prerequisite(s): ACC 207

ACC 210 - Accounting Information Systems

2 Hour(s)

Accounting systems are computerized. Accountants must understand hardware, software, financial information and how to develop/evaluate internal controls. The course is designed to help students understand basic AIS concepts such as how an accounting information system gathers, transforms and secures accounting data into financial records and ultimately into annual financial statements.

FA only

Prerequisite(s): ACC 205

ACC 305 - Advanced Accounting I

4 Hour(s)

A study of the principles, concepts, and procedures applied to mergers and consolidations, foreign exchange, governmental, non-profit organizations, estates and trusts, insolvency and partnerships.

FA only

Prerequisite(s): ACC 208

ACC 306 - Advanced Accounting II

4 Hour(s)

A study of the principles, concepts, and procedures applied to mergers and consolidations, foreign exchange, governmental, non-profit organizations, estates and trusts, insolvency and partnerships.

SP only

Prerequisite(s): ACC 305 or instructor consent

ACC 310 - Advanced Cost Accounting and Budgeting

4 Hour(s)

Study of various costing methods and management tools to aid in the decision-making process. Topics covered are job costing, process costing, activity-based costing, standard costing, inventory planning/control, budgeting/responsibility accounting, variable/ absorption costing, cost-volume-profit analysis, cost allocation, transfer pricing, capital budgeting and product/service pricing.

FA only

Prerequisite(s): ACC 205

ACC 324 - Advanced Business Law

4 Hour(s)

An advanced study of the current legal environment of businesses for accounting students taking the CPA exam or students interested in a career in law.

SP only

Prerequisite(s): BUS 290

ACC 375 - Pre-internship Seminar

2 Hour(s)

This course introduces students to the skills and knowledge needed to successfully compete for internship opportunities. Students

develop personal action plans, resumes, interview techniques, networking, critical thinking and self-assessment skills - all crucial preparation for the job market.

FA only
(Grading is on an S/U basis)

Prerequisite(s): junior standing

ACC 398 - Independent Study in Accounting

1 - 4 Hour(s)

A course designed to widen the student's knowledge of accounting theory, develop the ability to study independently, and demonstrate aptitude in planning and production of original work.

FA, SP, SU
Prerequisite(s): Approval of the college dean and consent of instructor

ACC 405 - Tax Accounting I

4 Hour(s)

Federal and Wisconsin income tax laws and their application to individuals.

FA only
Prerequisite(s): ACC 205

ACC 406 - Tax Accounting II

4 Hour(s)

Federal income tax laws and their applications to partnerships, corporations, estates, trusts, and gift and inheritance taxes.

SP only
Prerequisite(s): ACC 405

ACC 407 - Auditing

4 Hour(s)

The study of general audit procedures, preparation of working papers, various types of reports, professional ethics and legal responsibility. Student will be expected to successfully conduct and complete a comprehensive simulated financial audit project.

FA only
Prerequisite(s): ACC 306 or consent of instructor

ACC 414 - Accounting Theory

4 Hour(s)

Comprehensive analysis of the theoretical structure underlying financial and managerial accounting topics. Students must integrate prior knowledge and demonstrate mastery of complex FASB/IFRS issues and updates. Case methodology, oral presentations and written summaries are used in the course.

SP only
Prerequisite(s): ACC 306 or consent of the instructor

ACC 480 - Internship in Accounting

1 - 12 Hour(s)

The internship in accounting provides students with an opportunity to apply the theories and concepts learned in their accounting courses to work experience in the accounting field under the supervision of an external supervisor and faculty instructor.

(Grading is on an S/U basis)

Prerequisite(s): ACC 207 and ACC 208 and approval of the internship instructor

Restrictions: Student must be a declared major or minor in Accounting.

Note(s): Students may earn a maximum of 12 credits in ACC 480. 40 hours of work are required for each credit. With approval of the department chair, a 400 level course offered by the Department of Business, Accounting, and Economics may be substituted for ACC 480 when internship placement is not possible.

ACC 481 - Internship Option - Course Substitution

1 - 4 Hour(s)

An additional 400 level course may be substituted for the internship when placement is not available. Senior standing and consent of the instructor.

(Grading is on an S/U basis)

ACC 483 - Internship Option-Prior Work Experience

1 - 4 Hour(s)

Prior entry-level accounting experience may be substituted for the ACC 375 and ACC 480 requirement.

(Grading is on an S/U basis)

Prerequisite(s): Approval of Internship Instructor and Department Chair Students can earn a maximum of 4 credits through ACC 483

Restrictions: Student must be a declared major in accounting.

ACC 498 - Independent Study in Accounting

1 - 4 Hour(s)

A course designed to widen the student's knowledge of accounting theory, develop the ability to study independently, and demonstrate aptitude in planning and production of original work.

FA, SP, SU

Prerequisite(s): Approval of the college dean and consent of instructor

Actuarial Science

ASC 301 - Financial Mathematics

4 Hour(s)

Workshop-style course that develops fundamental concepts of financial mathematics and how those concepts are applied in calculating present and accumulated values for various streams of cash flows as a basis for future use in reserving, valuation, pricing, asset/liability management, investment income, capital budgeting and valuing contingent cash flows.

SP

Corequisite: MAT 161

This course cannot be taken concurrently with ASC 302.

ASC 302 - Probability

4 Hour(s)

This course develops fundamental probability tools for quantitatively assessing risk. Topics include general probability, univariate probability distributions (including binomial, negative binomial, geometric, hypergeometric, Poisson, uniform, exponential, gamma, and normal), and multivariate probability distributions (including the bivariate normal). Application of these tools to problems encountered in actuarial science is emphasized.

SP

Prerequisite(s): MAT 207

This course cannot be taken concurrently with ASC 301.

Note(s): May not be taken for credit by those who have taken MAT 312.

ASC 380 - Internship in Actuarial Science

4 - 16 Hour(s)

Professional work experience in actuarial science under the supervision of faculty and professional actuaries. Course requirements will depend on the type of internship.

FA, WN, SP, SU

S/U graded

Prerequisite(s): Junior or senior standing and approval of instructor are required prior to registration

ASC 401 - Investment and Financial Markets

4 Hour(s)

This course introduces derivatives in their various forms, including forward contracts, call and put options, and strategies for combining contracts to manage risks, put-call parity, development of the theoretical basis of certain financial-economic models and the application of those models to insurance and other financial risks, interest rate models, rational valuation of derivatives securities, simulation, and risk management techniques.

FA, Odd Years

Prerequisite(s): ASC 301 and ASC 302

ASC 402 - Long-Term Actuarial Mathematics

4 Hour(s)

This course develops theoretical basis of long-term actuarial mathematics and the application of those models to insurance and other financial risks. Topics include survival models, Markov Chain models, life and health insurances, annuities, and Poisson processes.

FALL, Even Years

Prerequisite(s): ASC 301 and ASC 302

ASC 480 - Internship in Actuarial Science

4 - 16 Hour(s)

Professional work experience in actuarial science under the supervision of faculty and professional actuaries. Course requirements will depend on the type of internship.

FA, WN, SP, SU

S/U graded

Prerequisite(s): Junior or senior standing and approval of instructor are required prior to registration

Animal Behavior

ANB 101 - The Science of Animal Behavior

4 Hour(s)

Students will learn to analyze the behavior of animals by investigating questions of causation, development, function, and evolutionary history. Teaching methods will include inquiry-based approaches in both class and laboratory sessions. Animal Behavior major or minor or instructor consent.

Prerequisite(s): BIO 120 recommended

ANB 101L - The Science of Animal Behavior Laboratory

0 Hour(s)

Laboratory component for ANB 101.

ANB 250 - Introduction to Canine Care, Behavior & Training

4 Hour(s)

Students will learn how to assess the behavior of dogs and implement a variety of management and training techniques based on those assessments. The lecture component of the class will focus on building an evidence-based understanding of canine behavior and training and this understanding will be strengthened by practical experience in the laboratory component. This course is part of a two course series and students are expected to register for both semesters, contingent on satisfactory performance in the first semester.

(Required course fee.)

Prerequisite(s): ANB 101 or permission of instructor

ANB 250L - Introduction to Canine Care, Behavior & Training Laboratory

0 Hour(s)

Laboratory component for ANB 250.

ANB 255 - Advanced Skills in Canine Management & Training

4 Hour(s)

This course will build off the foundation skills acquired in ANB 250/ANB 250L as students foster a shelter dog from the Humane Animal Welfare Society for the duration of the semester. Evidence-based principles of assessing a dog's temperament and behavior, developing and implementing training and behavior modification plans will be reinforced through hands on experience and analysis of case studies.

(Required course fee.)

Prerequisite(s): ANB 250/ANB 250L and permission of the instructor

ANB 255L - Advanced Skills in Canine Management & Training Laboratory

0 Hour(s)

Laboratory component for ANB 255.

ANB 260 - Fundamentals of Wildlife Rehabilitation

2 Hour(s)

In this course you will learn the basic fundamentals of wildlife rehabilitation of Wisconsin wildlife. We will cover species identification, natural history, anatomy, diet, initial triage and rehabilitation. Teaching methods will include example-based approaches in both class and hands-on sessions in labs.

Prerequisite(s): BIO 125 or ANB 101, sophomore standing; or permission of the instructor

ANB 270 - The Human-Animal Bond

4 Hour(s)

This course offers students insight into the concept of the Human-Animal Bond (HAB), our rich history of relationships with animals through the ages and across cultures, and the inclusion of animals in our lives for pragmatic, emotional and financial purposes. We will explore the fundamentals of the human-animal bond based in science, and gain an understanding of the benefits we reap from these relationships, as well as the harm sometimes done at the hands of humans. Students will acquire an understanding of how nonhuman animals can enrich our lives, and we theirs.

FA

Prerequisite(s): ANB 101, PSY 101

ANB 302 - Winter Ecology of Wolf and Lynx

3 Hour(s)

This course covers a broad range of topics related to wildlife. The focus will be the white-tailed deer, gray wolf, lynx, and other MN predators, but all animals directly or indirectly associated with or affected by these species may be included. The course is field-oriented and includes opportunities for backcountry travel, wildlife observation and tracking, as an introduction to habitats, how wildlife respond to natural and artificial disturbance, and human factors impacting wildlife. Additional topics include wildlife research techniques, data acquisition and analysis, and management practices. The course is taught at the Audubon Center of the North Woods in Sandstone, MN. Additional tuition is required and students provide their own transportation to the Audubon Center.

WN

ANB 320 - Fundamentals of Zoo Animal Care

2 Hour(s)

This course will provide students with content knowledge related to zoo animal care. Students will complete the San Diego Zoo Global Academy's Certificate in Animal Care. While the course is primarily aimed at students considering careers working in a zoo setting, it may also be beneficial for students considering veterinary school, wildlife rehabilitation, humane animal care, or wildlife conservation. This is a fully on-line course

SP

Prerequisite(s): BIO 120

ANB 101 OR BIO 125

ANB 380 - Internship in Animal Behavior

2 - 4 Hour(s)

The internship provides an opportunity to experience and better understand career opportunities in Animal Behavior, while also allowing a student to pursue a particular area of interest in greater depth than cannot typically be accomplished in more traditional course settings.

FA, SP, SU.

Prerequisite(s): Junior standing and consent of instructor

Anatomy and Physiology

ANP 100 - Overview of Human Anatomy and Physiology

4 Hour(s)

General Education N1

The normal human anatomy and physiology are presented using a body system approach with emphasis on the interrelationships between form and function in this one-semester course. This course provides an overview of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, pulmonary, urinary, gastrointestinal, and reproductive systems. This course is designed to provide students with a basic understanding of the human body and provide foundational knowledge for those pursuing majors outside the health sciences.

(required course fee)

SP

ANP 100L - Overview of Human Anatomy and Physiology Laboratory

0 Hour(s)

Laboratory component for ANP100L.

ANP 130 - Introduction to Human Anatomy and Physiology I

4 Hour(s)

This is the first of two courses which present the unifying concepts of anatomy and physiology required for understanding the human body as a structural and functional unit. This course emphasizes the mechanisms that underlie the normal functions of cells, tissues, organs, and organ systems. This course includes the study of basic biochemistry, cell biology, histology, and the integumentary, skeletal, muscular, nervous, and endocrine systems.

Four hours lecture and three hours laboratory.

(Required course fee)

FA, SU

ANP 130L - Intro to Human Anatomy and Phys I Lab

0 Hour(s)

Laboratory component for ANP 130.

ANP 140 - Introduction to Human Anatomy and Physiology II

4 Hour(s)

This is the second of two courses that present the unifying concepts of anatomy and physiology required for understanding the human body as a structural and functional unit. This course includes the study of the cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive systems. A body systems approach is used to emphasize the interrelationships between structure and function of the gross and microscopic levels of organization of the human body.

Four hours lecture and three hours laboratory

(Required course fee)

SP, SU

Prerequisite(s): ANP 130 or equivalent is strongly recommended

ANP 140L - Intro to Human Anatomy and Phys II Lab

0 Hour(s)

Laboratory component for ANP 140.

ANP 402 - Human Anatomy

4 Hour(s)

The microscopic and gross anatomy of the skeletal, muscular, integumentary, nervous, cardiovascular, lymphatic, respiratory, renal, digestive, endocrine, and reproductive systems are studied. Multi-media software is used to dissect the male and female body in anterior, posterior, medial, and lateral views. Histologies, radiologies, cross-sections, and MRIs are linked to the anatomy. Models are also employed to study the structure of the human body. Palpation laboratories are also integrated into the course.

(Required course fee)

FA, SU

Prerequisite(s): Junior standing; BIO 225 or ANP 130 and ANP 140; or instructor consent

ANP 402L - Human Anatomy Laboratory

0 Hour(s)

Laboratory component for ANP 402.

ANP 403 - Human Physiology

4 Hour(s)

Fundamental concepts related to the normal function of the human body are presented. Basic pathophysiological concepts are also introduced. This course includes the study of the nervous, endocrine, muscular, cardiovascular, respiratory, digestive, urinary, and reproductive systems. Experimental design, data analysis, computer simulations, case studies, and discussion/presentation of primary literature are incorporated into the course.

Four hours lecture and three hours laboratory.

(Required course fee)

SP, SU

Prerequisite(s): Junior standing; BIO 225 or ANP 130 and ANP 140; and CHE 110 or CHE 101 and CHE 102

ANP 403L - Human Physiology Laboratory

0 Hour(s)

Laboratory component for ANP 403.

Art

ART 106 - Drawing and Composition

4 Hour(s)

General Education F1

An introduction to drawing with emphasis on developing observational skills using a limited variety of materials.

(Required course fee)

FA, SP, SU

ART 107 - Beginning Design 2D and 3D

4 Hour(s)

General Education F1

A multi-imagery approach to solving design problems as related to fine and commercial art.

(Required course fee)

FA, SP

ART 200 - Early Modernism to Present-Art History Survey

4 Hour(s)

General Education F1

A survey of painting, sculpture, architecture and other visual arts from Postimpressionism (approximately 1880's) to present. Explores historical, philosophical and cultural influences on artistic practices in the development of western civilization.

SP

Prerequisite(s): ART 104 recommended

ART 201 - Painting I

4 Hour(s)

General Education F2

An introduction to the study of oil painting with an emphasis on technique, color, composition using a variety of supports including stretched canvas, wood, and paper. Subject matter will focus on issues of space, place and the still life.

(Required course fee)

FA, SP

Prerequisite(s): ART 106 or ART 107 consent of instructor

ART 206 - Intermediate Drawing

4 Hour(s)

This course continues development of composition ideas in drawing with an emphasis on drawing as a visual expression requiring thought, visual clarity and imagination. A minimum of one third of the course will be drawing from the nude model.

(Required course fee)

SP Odd years

Prerequisite(s): ART 106

ART 209 - Photography I

4 Hour(s)

General Education F1

The student learns basic skills in digital photography and directs this knowledge toward creative expression with strong emphasis on design and composition. An adjustable digital camera required and will be available for rental.

(Required course fee)

FA, SP

ART 211 - Gallery/Museum Experience

1 - 2 Hour(s)

Preparing gallery space, scheduling exhibitions and arranging and hanging shows. Working with the Carroll University permanent collection of Wisconsin artists gaining restoration experience in matting, framing and repairing. Enrollment recommended during semester of senior exhibition.

May be repeated up to 4 credits.

FA, SP

Prerequisite(s): Art major/minor or consent of instructor

ART 212 - Introduction to Book Art

4 Hour(s)

General Education F2

This course will introduce students to the traditions and methods of the handmade book, as well as the expressive possibilities available with book art.

ART 213 - Themes in Art History - Prehistory to Baroque

4 Hour(s)

F1

This course is an introduction to the history of human visual expression, from the earliest evidence of image making to the end of the Baroque period -- just before the cusp of the Modern Era. We will discuss the aesthetic values of these cultures to understand the historic, social, political, religious and other meanings behind the creation of works of art. The format of this course is seminar-workshop style where we will work through critical themes and major works from around the world, as opposed to the more traditional reliance on formal lectures, memorization, and art historical textbooks.

Why study this material? The works of art and architecture introduced in this class are fundamental expressions of human history and culture, that have been critical to the ongoing dialogue with other disciplines. This course is thus meant to empower students by providing analytical skills that will enable them to arrive at a more nuanced and critical understanding of world culture and the human condition. .

Students will foster an appreciation of art in its myriad forms, increase their sensitivity to cultural diversity and to the ways in which the past has shaped the present.

FA, SP

Prerequisite(s): Sophomore standing or higher

ART 215 - History of Photography

4 Hour(s)

General Education F2

Students will study the origins and traditions of photography in both artistic and technological terms. The course will trace the evolution of photography from its beginnings in 1839 to the present. Through reading, writing, research, and oral assignments, students will learn the major figures in photography and examine important critical, cultural and social issues. Primary emphasis will be placed on cultural and aesthetic concerns of key figures in the history of photography.

FA

Prerequisite(s): ART 209

ART 220 - Sculpture I

4 Hour(s)

General Education F2

An introduction to a variety of materials, shop equipment, and contemporary sculptors in order to expose students to the broad possibilities of sculptural expression.

(Required course fee)

SP

Prerequisite(s): ART 106 or ART 107 or ART 225

ART 225 - Ceramics I

4 Hour(s)

General Education F1

A serious exploration of clay as an artistic medium. This class introduces the beginner to a variety of techniques with an emphasis on hand-building

(Required course fee)

FA, SP, SU

ART 230 - Printmaking I

4 Hour(s)

General Education F2

A study of drawing and composition applied to the making of multiples. The course introduces the media of relief serigraphy, and etching with some opportunity for the student to specialize.

(Required course fee)

FA, SP

Prerequisite(s): ART 106 or ART 107 or consent of instructor

ART 235 - Art Metals

4 Hour(s)

This course covers some fundamentals of jewelry and metalsmithing including basic hand-tool knowledge fabrication techniques, soldering, stone setting and an introduction to the history of jewelry and contemporary metalwork.

(Required course fee)

ART 291 - Special Topics in Art

2 - 4 Hour(s)

Study of a special topic in art that is not covered in regular course offerings. This could be a studio or art history based course. The topic will be announced before registration.

ART 298 - Independent Study

1 - 4 Hour(s)

Independent study of selected areas already covered by a studio course.

(Required course fee)

FA, SP

Prerequisite(s): Approval of divisional dean and consent of instructor

ART 301 - Painting II

4 Hour(s)

Intermediate level study of oil painting with an emphasis on self-expression and continued skill development. Subject matter will focus on abstract issues as well as introduction to narrative ideas.

(Required course fee)

SP

Prerequisite(s): ART 201 or consent of instructor

ART 306 - Advanced and Life Drawing

4 Hour(s)

A continuation of ART 202 with more thematic development. A minimum of one third of the course will be drawing from the nude model. Taught simultaneously with ART 206.

(Required course fee)

Prerequisite(s): ART 206

ART 309 - Photography II - Fine Art

4 Hour(s)
General Education F2

Advanced photographic techniques in both black and white and color with further development of creative expression.
Adjustable camera required.

(Required course fee)
Prerequisite(s): ART 209

ART 310 - Photography II - Commercial

4 Hour(s)
General Education F2

Advanced photographic techniques in both black and white, color and digital with emphasis in commercial photography.
Adjustable camera required.

(Required course fee)
FA
Prerequisite(s): ART 209

ART 313 - Travel Journals-Italy

4 Hour(s)
Students will read and discuss travel writing from the region of study as well as practice the writing and drawing skills necessary to record experiences and observations. As part of the course students will travel over Spring Break, or during May term, to the country of focus.

SP, odd years
Prerequisite(s): Consent of instructor
Also Offered As: NCEP 313

ART 314 - Photography II Studio Lighting

4 Hour(s)
General Education F2

Advanced photographic techniques with emphasis in the practices of studio lighting for photography. Adjustable digital camera required.

(Required course fee)
SP only
Prerequisite(s): ART 209

ART 320 - Sculpture II

4 Hour(s)
This course is taught simultaneously with ART 220. Individually created problems in sculpture that focus on continued development of skills and on thematic development.

(Required course fee)

SP

Prerequisite(s): ART 220

ART 325 - Ceramics II

4 Hour(s)

General Education F2

Individually created problems in ceramics as well as advanced study in glazing and firing.

(Required course fee)

Prerequisite(s): ART 225

ART 330 - Printmaking II

4 Hour(s)

This course is taught simultaneously with ART 230. Advanced study in graphics with opportunity for self-direction in a concentration on one or two media.

(Required course fee)

FA

Prerequisite(s): ART 230

ART 340 - Advanced Media Studies

4 Hour(s)

This course is designed so that students who have had the beginning and intermediate courses in a specific medium can continue their study in this area with specific focus. Students are expected to develop a body of work in a series.

(Required course fee)

SP

Prerequisite(s): The beginning and intermediate course in the same medium, or consent of the instructor (Junior standing recommended)

ART 353 - Methods of Teaching Secondary Art

2 Hour(s)

This course is not included in an art major or minor but is part of the professional education program.

FA

Prerequisite(s): Admission to the Teacher Education Program

ART 391 - Special Topics in Art

4 Hour(s)

Study of a special topic in art that is not covered in regular course offerings. This could be a studio or art history based course. The topic will be announced before registration.

ART 398 - Independent Study in Art

1 - 4 Hour(s)

Independent study of selected areas already covered by a studio course.

(Required course fee)

FA, SP

Prerequisite(s): Approval of divisional dean and consent of instructor

ART 401 - Painting III

4 Hour(s)

This course continues development in painting technique from Painting II, focusing on experiments in composition, exploring painting as process, and contemporary painting issues. In this course you will be required to do research and create a series of paintings.

(Required course fee)

SP

Prerequisite(s): ART 301

ART 480 - Internship in Art

1 - 4 Hour(s)

Supervised professional work experience. Written report required.

Limited to two semesters (8 credits) which will apply toward degree.

FA, SP, SU

Prerequisite(s): Consent of instructor

ART 490 - Capstone in Art

4 Hour(s)

Preparation for senior exhibitions through regular critiques and research into contemporary art issues. Professional development in writing and speaking about art as well as portfolio preparation.

FA

Prerequisite(s): Senior standing

Athletic Training

ATH 101 - Athletic Training Seminar I

2 Hour(s)

This course will provide an overview of basic athletic training theory and techniques that is useful for those involved with athletics and physical activity. The student will gain an understanding of basic anatomy and common injuries associated with physical activity. Other topic areas that will be addressed include: prevention and management of injury, emergency medical plans, blood borne pathogen precautions, nutritional issues, and legal matters and risk management. Overall, this course will introduce the student to the sports medicine team, their roles and responsibilities, and how they themselves are a contributing member of the sports medicine team.

(Required course fee)

SP

ATH 101L - Athletic Training Seminar I Lab

0 Hour(s)

Laboratory component for ATH 101.

ATH 5402 - Athletic Training Seminar I

3 Hour(s)

This course will provide an overview of basic athletic training theory and techniques as well as basic skills and knowledge used in the athletic training profession. The student will gain an understanding of common injuries associated with physical activity. It will include discussions regarding the role of preventative techniques, emergency management plan, injury management and treatment methods, components of a pre-participation exam, wound management techniques, blood borne pathogen precautions, legal matters and risk management. Competencies for injury prevention will be taught including developing an emergency plan, vision screenings, wound management, advanced taping techniques, wrapping techniques, and taking vital signs. Overall, this course will introduce the student to the sports medicine team, their roles and responsibilities, and how they themselves are a contributing member of the sports medicine team.

FA

Prerequisite(s): Good standing in the program.

ATH 5402L - Athletic Training Seminar I Laboratory

0 Hour(s)

Laboratory component.

ATH 5450 - Assessment and Evaluation I

2 Hour(s)

This course will provide students with the knowledge and skills for clinical and on-the- field musculoskeletal assessment and evaluation of the upper and lower extremities for physically active people. General topics for the course will include patient care, interviewing and history taking, determining subjective and objective findings, and applying assessment and evaluation skills for the upper and lower extremities. Specific injuries and conditions specific to each extremity will be discussed as well as emergency, management, referral and return to participation measures for the physically active.

Prerequisite(s): Good standing in the Athletic Training program

ATH 5450L - Assessment and Evaluation I Laboratory

0 Hour(s)

Laboratory component for ATH 5450.

ATH 5455 - Assessment and Evaluation II

4 Hour(s)

This course will provide students with the knowledge and skills for clinical and on-the-field musculoskeletal assessment and evaluation for physically active people. General topics for the course will include patient care, interviewing and history taking, determining subjective and objective findings, and applying assessment and evaluation skills based on the patient presentation. Patient care topics will also include emergency management of injuries/illnesses, referral and return to participation measures for the physically active.

SP

Prerequisite(s): Good standing in the program.

ATH 5455L - Assessment and Evaluation II Laboratory

0 Hour(s)

Laboratory component.

ATH 5460 - Athletic Training Practicum I

1 Hour(s)

This practicum course is a primary venue for the synthesis and integration of knowledge, skills, and clinical decision-making used in actual client/patient care. Students will gain experience working with patients in clinical settings. Students are not compensated through the University work/study program.

FA

Prerequisite(s): Good standing in the program.

ATH 5461 - Athletic Training Practicum II

2 Hour(s)

This practicum course is a primary venue for the synthesis and integration of knowledge, skills, and clinical decision-making used in actual client/patient care. Students will gain experience working with patients in clinical settings. Students are not compensated through the University work/study program.

SP

Prerequisite(s): Good standing in the program.

Aviation Science

AVS 103 - Introduction to Unmanned Aircraft Systems

4 Hour(s)

This is an introductory survey course designed to provide an overview of the foundations of UAS (Unmanned Aircraft Systems), or "drones". Principles of flight, federal regulations and oversight, and applications of drone technology are outlined and discussed. Course content will include uses of this technology in fields such as: graphic communication, law enforcement, geology, biology, business, and environmental science. The course is designed to cover part of the information needed to take the FAA UAS knowledge test (Part 107). Field trips will give students the opportunity to safely operate commercial grade drones.

FA

AVS 214 - Unmanned Aircraft and Autonomous Systems

4 Hour(s)

AVS214 is created to gain insight into the basic elements of autonomous systems used in civilian missions and into Federal Aviation Administration (FAA) regulations. This course introduces unmanned aerial systems (UAS) including drones and autonomous unmanned aerial vehicles (UAV) with sensors including those for obstacle avoidance, other instruments, and payloads that rely on programming. Welcome to the drone programming primer for drones, where you will learn software projects that are fueling the progression of today's drones!

The collection of software languages for drones is transcending its hobbyist roots and is branching out into business applications at a high rate. This is going to translate to demand for drone engineers/developers who understand drone languages. Students learn the fascinating fundamentals of these machines, including programming, customization, acquisition, and commercial use. Rather than building drones from the ground up, students take advantage of existing products and resources, the Tello drone, to adapt to meet specific needs. The course includes programming, operations, flight, drone design, sensing systems, mission planning, regulations, and safety. Students will learn to program and test the Tello drone using Python. In this course you will learn how to set up your Python programming environment and communicate with Tello using UDP, the User Datagram Protocol.

SP Alternate years

Prerequisite(s): AVS 103

AVS 310 - Unmanned Aircraft Systems Operations and Applications

4 Hour(s)

AVS310 course will explore the fundamental concepts of operations and applications required in the professional field of unmanned aircraft systems including geomapping, integrated sensors, photogrammetry, search and rescue, mission planning, drone communication systems, forensic staging and analysis, counter-drone systems, and automation. The course will focus on applying unmanned aircraft technology to specific data gathering missions. Sensor payloads, geomapping, and mission planning will be demonstrated. Emphasis will be placed on tailoring a flight profile and payload specific missions. Post flight analysis will be used to determine payload and aircraft system performance. All specifications and procedures will be documented in a FAA accepted format.

FA Alternate years

Prerequisite(s): AVS 103

AVS 400 - Unmanned Aircraft Systems (UAS) Capstone

4 Hour(s)

Students learn how a unmanned aircraft system (UAS) is designed, constructed, and maintained. Students will demonstrate the synthesis of knowledge of UAS technology with knowledge of the UAS environment through practical application problem and related capstone drone mission. Students will learn problem solving through drone technology, drone design and construction, selection of materials and operating systems, selection or design of sensors, drone swarm programming and demonstration, swarm drone light show. Students will design and build a drone with payload for a sensor mission. Students will use their drone and sensor payload to map a specified site. The challenge will address safety critical risks associated with flying UAVs in the National Airspace system (NAS), drone design and build, drone sensor payloads, and data collection for final analysis.

SP Alternate years

Prerequisite(s): AVS 103

Biology

BIO 120 - General Biology I

4 Hour(s)

General Education N1

This course investigates the origins and diversity of life and how organisms interact with each other and their environment. Students will learn how evolutionary principles provide the foundation for understanding life throughout Earth's history. Case studies and student research during laboratory will develop the ability of students to apply their knowledge of how organisms interact at different biological scales. This is the first course in the Biology major and is traditionally challenging for non-science majors.

Four hours lecture/discussion and two and one half hours laboratory.
(Required course fee)
FA

BIO 120L - General Biology I Laboratory

0 Hour(s)
Laboratory component for BIO 120.

BIO 125 - General Biology II

4 Hour(s)
This course investigates the structure, function, and biochemistry of cells. Students will learn how evolutionary principles provide the foundation for understanding the cellular processes that support life. Case studies and student research during laboratory will develop the ability of students to apply their knowledge of how underlying cellular processes explain complex organismal functions.

Four hours lecture/discussion and two and one half hours laboratory.
(Required course fee)
SP
Prerequisite(s): BIO 120

BIO 125L - General Biology II Laboratory

0 Hour(s)
Laboratory component for BIO 125.

BIO 131 - Genetics in Family and Society

4 Hour(s)
General Education N1

This course will introduce non-science majors to human genetics and the scientific way of knowing. Students will learn how DNA determines traits and how traits are inherited. Students will also learn how modern genetic technologies influence the products we buy, our health and, potentially, our genetic futures. The relationship between the scientific method and our understanding of human genetics will be stressed, and students will have the opportunity to propose and perform an experiment of their own design.

Four hours lecture/discussion and three hours laboratory.
(Required course fee)
FA

BIO 131L - Genetics in Family and Society Lab

0 Hour(s)
Laboratory component for BIO 131.

BIO 212 - Microbiology for the Health Sciences

4 Hour(s)

This course examines the fundamentals of microbiology (structure, metabolism, genetics, and growth) and surveys the microbial world. The interaction between microbe and host and the diseases caused by microbes is examined. Four hours of lecture/discussion and two two-hour laboratories.

(Required course fee)

FA, SP, SU

Prerequisite(s): ANP 130; CHE 102; or instructor consent

BIO 212L - Microbiology for the Health Sciences Laboratory

0 Hour(s)

Laboratory component for BIO 212.

BIO 220 - Genetics

4 Hour(s)

This course investigates molecular, classical and population genetics to highlight how evolutionary principles are based on genetic processes. Students will learn the molecular processes that govern gene expression, genetic diversity, and inheritance. Students will also discuss the role of genetic research in current society. Laboratory periods will give students hands on experience in several techniques used in modern genetic research.

Four hours lecture and two and half hours laboratory.

(Required course fee)

FA

Prerequisite(s): BIO 125

Pre-or Co-requisite: CHE 109

BIO 220L - Genetics Laboratory

0 Hour(s)

Laboratory component for BIO 220.

BIO 225 - Organismal Physiology

4 Hour(s)

This course investigates the diverse of form and function of plants and animals at the physiological level. Students will learn the cellular and biochemical basis of physiological processes and the diversity of organismal forms, as well as an in-depth study of the biological adaptations of plants and animals to cope with the environment. Using comparative experiments, the laboratory is designed to solidify the concepts of physiology learned in lecture and to develop the ability of the students to apply their understanding of physiological mechanisms in diverse organisms.

Four hours lecture and three hours laboratory.

(Required course fee)

SP

Prerequisite(s): BIO 220 and CHE 110

BIO 225L - Organismal Physiology Laboratory

0 Hour(s)

Laboratory component for BIO 225.

BIO 271 - Clinical Immunology

4 Hour(s)

This course covers the theory and application of immunology. Students will learn about the development and function of the immune system including immune responses, antigen-antibody reactions, intercellular communication, and autoimmune and immunodeficiency disorders. The course will emphasize the principles and performance of protocols in cellular immunology, immunochemistry, and clinical serology.

Four hours lecture and three hours laboratory.

(Required course fee)

Prerequisite(s): ANP 140 and CHE 102

BIO 271L - Clinical Immunology Laboratory

0 Hour(s)

Laboratory component for BIO 271.

BIO 322 - Comparative Vertebrate Zoology

4 Hour(s)

This course examines the anatomical similarities and differences among major vertebrate classes. The majority of the lecture material explores the evolution and diversity of structure and function in vertebrate systems. The application of morphology in current science, specifically systematics and ecological morphology will also be discussed. The laboratory will emphasize the lecture material through dissection of taxonomic representatives, systematics and experiments in ecological morphology.

Four hours lecture/discussion and three hours of laboratory.

(Required course fee)

FA

Prerequisite(s): BIO 225 or instructor consent

BIO 322L - Comparative Vertebrate Zoology Laboratory

0 Hour(s)

Laboratory component for BIO 322.

BIO 332 - Gene Manipulation and Genomics

4 Hour(s)

This course introduces students to the fields of gene manipulation and genomics through an integrated laboratory/lecture/discussion approach. Students will gain hands-on experience with the basic methods, the biological basis for those methods, and a practical understanding of how they are applied in the fields of medicine, basic science research, environmental science, ethics, and law.

(Required course fee)

FA, even years

Prerequisite(s): BIO 220 , CHE 110 or instructor consent

BIO 332L - Gene Manipulation and Genomics Lab

0 Hour(s)

Laboratory component for BIO332.

BIO 333 - Ecology

4 Hour(s)

This course will develop students understanding of ecological and evolutionary processes in populations, communities, and ecosystems and allow students to explore the diversity of methods used in field biology. Course readings will draw heavily on primary literature.

Four hours lecture/ discussion and four hours laboratory.

(Required course fee)

FA

Prerequisite(s): BIO 225 or ENV 201, or instructor consent

BIO 333L - Ecology Laboratory

0 Hour(s)

Laboratory component for BIO 333.

BIO 350 - Endocrinology

4 Hour(s)

The structural and functional classification of hormones, principles of hormone action, and the regulation of body functions by the endocrine system are presented. Special emphasis is placed on species differences and evolutionary changes in some selected hormone systems as they relate to homeostasis. Small group discussions, clinical cases, research article presentations, and grant writing are included.

SP

Prerequisite(s): BIO 225 or instructor consent

BIO 360 - Aquatic Ecology

4 Hour(s)

An advanced ecology course that builds upon the Biology core courses. This course explores the basic ecology of wetlands, lakes, and streams. Students will examine physical and chemical processes that are largely responsible for the biological responses evident in these different habitat types. The lecture component draws about half of its material from the textbook with the other half relying heavily upon peer-reviewed scientific literature. Laboratory activities further examine and reinforce ecological concepts derived from lecture and readings.

a three-hour laboratory is part of the course

(Required course fee)

SP

Prerequisite(s): BIO 225 or ENV 201, or instructor consent

BIO 360L - Aquatic Ecology Laboratory

0 Hour(s)

Laboratory component for BIO 360.

BIO 380 - Internship in Biology

1 - 4 Hour(s)

A program of placement in industry, hospital, field, health agency, laboratory, school, etc., for on-the-job experience and

observation. Program approval required prior to registration. Four credits maximum will apply toward the major.

FA, SP, SU

BIO 395 - Professional Readiness in the Biological Sciences

2 Hour(s)

This also prepares students in the biological sciences for the ethical issues facing those practicing biology, including the study of human and animal subjects, presentation of uncertainty in research results and the role of biological sciences in society. During this course, students will prepare to present themselves as prospective graduate students, medical professionals, researchers and technicians through an array of experiences. During this course, students will explore the wide variety of career options made available to them with a degree in biology.

FA, SP

Pre-or Co-requisite: BIO 225

BIO 412 - Microbiology

4 Hour(s)

Most microorganisms are beneficial to mankind; some microbes decompose and recycle nutrients in the environment and some microbes protect humans from other disease-causing microbes. This course will investigate the molecular and structural properties of a variety of microorganism, the human immune system that has evolved to protect us from pathogenic microbes, and the immune evasion strategies employed by a variety of pathogenic microbes. Students will gain experience in traditional and newer microbiology techniques during laboratory.

Four hours lecture and four hours laboratory (two hour lab twice a week).

(Required course fee)

SP

Prerequisite(s): BIO 220 or instructor consent

BIO 412L - Microbiology Laboratory

0 Hour(s)

Laboratory component for BIO 412.

BIO 417 - Behavioral Ecology

4 Hour(s)

This course investigates the biological bases of animal behavior, focusing particularly on the evolution of social behavior in nonhuman animals. Theoretical foundations of the field as well as their practical applications are studied through discussion/lecture/activities. Experience in experimental design and observation techniques are developed through studies of animal behavior. These experiences culminate in a final research project of the student's own design.

Four hours lecture/discussion and four hours laboratory.

(Required course fee)

FA

Prerequisite(s): BIO 225 or PSY 314

BIO 417L - Behavioral Ecology Laboratory

0 Hour(s)

Laboratory component for BIO 417.

BIO 452 - Cell Biology

4 Hour(s)

In this course, basic principles of cell physiology, molecular biology, biochemistry, and biophysics are studied in relation to the structure and function of cells and their organelles through an integrated laboratory/lecture/discussion approach.

Four hours lecture/discussion and three hours laboratory.

(Required course fee)

FA

Prerequisite(s): BIO 220 and CHE 110

BIO 452L - Cell Biology Laboratory

0 Hour(s)

Laboratory component for BIO 452.

BIO 462 - Conservation Biology

4 Hour(s)

Using basic and applied science, students will explore how populations, communities and ecosystems are managed and preserved in the face of ever-growing threats from human activities. We will also explore the ideas of resilience and resistance of biological systems to outside influence, including how natural systems recover with and without intervention. The functioning of biological systems will be placed into the context of human influence, philosophical approaches and ethics. Field trips may replace some classes.

SP even years

Prerequisite(s): BIO 225 or ENV 201 or consent of the instructor

BIO 480 - Internship in Biology

1 - 4 Hour(s)

This internship places students in industry, hospital, field, health agency, laboratory, school, or other professional settings to obtain on-the-job experience and develop skills relevant to future career opportunities. The BIO 480 Internship differs from the BIO 380 - Internship in Biology because it incorporates application of research-based skills to the internship experience.

Prerequisite(s): BIO 225 and instructor consent

BIO 485 - Research in Biology

1 - 4 Hour(s)

This experience involves independent laboratory or field-based research of selected areas in biology under supervision of a faculty member. Students will develop sufficient mastery of their system of interest to allow them to acquire data appropriate for resolution of their specific problem.

Instructor consent.

BIO 491 - Special Topics in Biology

1 - 4 Hour(s)

This course is a study of a selected topic not covered in regular course offerings. Lecture and discussion. The topic will be announced prior to registration.

BIO 495 - Integrating Biological Sciences

2 Hour(s)

This course will explore the ways in which the biological sub-disciplines (cell/molecular, organismal and ecology/evolution) interact with one another through current issues, such as nutrient pollution and cycling, the evolution of cancer or ecological genetics. Data interpretation from both scientific and general sources is emphasized. Additionally, students practice communication of science to both professional and lay audiences. We explore the ramifications of biological research, scientific knowledge and the practice of science on our society.

FA, SP

Prerequisite(s): BIO 395, junior standing

BIO 498 - Independent Study

1 - 4 Hour(s)

This experience involves independent study of selected areas in biology under supervision of a faculty member that generally does not involve laboratory work.

Prerequisite(s): Approval of the department chair and instructor consent

Business Administration

BUS 101 - Introduction to Business

4 Hour(s)

This course is designed to define and describe business-related terminology and concepts and expose students to the various subjects covered in the business world. Topics covered include the global perspective of business; environmental issues; current business practices; marketing, management, finance, accounting, information systems, and the impact of the Internet on business.

FA, SP

BUS 114 - Applied Statistics for Business and Economics

4 Hour(s)

BUS114 is a second-level course in statistics that builds upon concepts developed in CMP 112. It can act as a substitute for CMP114 in BAE program requirements and the Bachelor of Science requirement. It will cover course topics such as hypothesis testing, simple and multiple regression, Analysis of Variance (ANOVA), non-parametric testing, decision-making using payoff tables, and linear programming.

FA, SP

Prerequisite(s): CMP 112 and either ACC 205, ECO 124, or ECO 225

BUS 260 - Ethics in Business, Government, and Society

4 Hour(s)

An interdisciplinary course that deals with the nature and scope of business/ government relationships. The emphasis is on ethical

and social issues affecting society's stakeholder groups (consumers, owners, employees, communities and environmentalists) and the challenges for business in the future. It encourages comparative analysis of business ethics with the moral standards of the world community.

FA only

BUS 265 - Human Resource Management

4 Hour(s)

The study of managerial responsibilities for human resources in the areas of productivity, quality of work life, compensation and job design. The course material deals with the recognition that an organization's most valuable resource is its personnel. The course is consistent with the systems orientation of human resource management, which recognizes the interrelationship of the personnel functions.

SP only

BUS 280 - Fundamentals of Applied Analytics

4 Hour(s)

The course provides an intensive overview of applied analytics across multiple domains ranging from traditional data and collections systems to informatics and GIS systems. The analytics progression will begin with descriptive analysis and proceed to diagnostic and predictive analytics.

FA, SP

Prerequisite(s): CMP 114 or BUS 114

BUS 290 - Principles of Business Law

2 Hour(s)

A study of the legal environment including the nature and sources of law, court systems, litigation, and alternative dispute resolution; constitutional and administrative law, tort law and product liability, contract law, agency law; business organizations; business ethics and social responsibility; international law; and selected topics of government regulation of business including antitrust law, employment law, environment law, and securities regulation. (If not completed within the past five years, no credit will be granted. The student has the option of retaking the course for credit or taking an examination for credit to show mastery of the current subject matter.)

FA and SP

BUS 291 - Special Topics

1 - 4 Hour(s)

A study of selected processes, developments, problems or issues in business administration or economics that are not covered in other courses. Changing topics may be drawn from any area of business administration. Courses may be repeated for credit with changed topics.

BUS 301 - Principles of Marketing

4 Hour(s)

The marketing process is analyzed as part of our socio-economic system that anticipates and satisfies consumer needs, adjusts to demand and sales, and procurement of goods and services. Topics include the marketing concept, new product development, channels of distribution, pricing, promotion and Internet marketing.

FA and SP

Prerequisite(s): sophomore standing

BUS 302 - Principles of Management

4 Hour(s)

Examines the theory, techniques, and applications of management systems. Planning, organizing, leading, and controlling are issues addressed. Topics include environmental influences, organization design and structure, motivation, total quality management, ethics, production and international management. Emphasis is on learning through application.

FA and SP

Prerequisite(s): sophomore standing

BUS 304 - Principles of Finance

4 Hour(s)

An analysis of the three functional and interrelated areas of finance: (1) financial institutions and markets, (2) corporate financial management, and (3) the investment management environment. The purpose of this course is to give all business students an expansive as well as applied understanding of the role of finance in business. Greater emphasis is placed on corporate financial management.

FA and SP

Prerequisite(s): ACC 205, ECO 124, and one of the following; CMP 114, BUS 114, ASC 302, or MAT 312

BUS 305 - Principles of Operations Management

4 Hour(s)

This course provides a survey of the operations function within a variety of enterprises and an understanding of how the design, operation and control of systems can most effectively provide goods and services. Topics include operations strategy, process selection, quality management and control, supply chain management, forecasting, scheduling, inventory planning and control, and lean systems.

FA and SP

Prerequisite(s): CMP 114

BUS 307 - Data Visualization Tools and Techniques

4 Hour(s)

The course provides an overview of visualization theories and approaches to visualize different types of data and summarizations of data that arise from analytics. The course provides hands on learning of visualization tools/programs of Excel, Tableau, and ArcGIS. Other visualization tools such as SPSS, and SAS also may be explored depending on the interests of students.

FA, SP

Prerequisite(s): BUS 280

BUS 320 - Promotion Management

4 Hour(s)

Development and control of the managerial structure for the elements involved in the marketing promotion function. Areas of concern are the relationship between the customer's needs and behavior, the corporation's approach to promotion, and the analysis

of organizational structure alternatives in the marketing promotional area. An integrated marketing perspective is utilized.

SP only

Prerequisite(s): BUS 301

BUS 321 - Careers in Finance

2 Hour(s)

This course provides students with the tools necessary to succeed in their future careers. Students will learn and experience about their chosen career path and develop further their career action plans and resume. Networking, interviewing techniques, critical thinking and self-assessment skills are also addressed as students prepare for entering the job marketing upon graduation.

FA only

Prerequisite(s): junior standing.

BUS 327 - Business to Business Marketing

4 Hour(s)

Analysis of the problems of marketing industrial goods. Particular attention given to acquiring market information, marketing planning, methods of distribution, pricing, and the promotional challenges of industrial marketing. Personal selling techniques and sales management are also covered.

SP only

Prerequisite(s): BUS 301

BUS 341 - Applied Risk Management

4 Hour(s)

An introductory course covering the basics of business risk management. This course provides an overview of the nature, process, and methods of dealing with risk. Students study traditional insurance contracts, as well as all other forms of transference (non-insurance), as risk management tools in the business world.

SP only

Prerequisite(s): BUS 304

BUS 342 - Investment Management

4 Hour(s)

A study of financial instruments, the markets in which they trade, and their use in developing basic portfolios. A key emphasis of this course involves the valuation decision process of fundamental analysis and its application towards portfolio management. In addition, topics such as investing risks, efficient markets, and the use of fixed income securities in portfolio management are examined.

FA only

Prerequisite(s): BUS 304

BUS 344 - Management of Financial Institutions

4 Hour(s)

A study of the decision making process of depository financial intermediaries such as commercial banks, credit unions, insurance companies, and savings and loan associations. A primary emphasis is on commercial bank management. Topics covered in the

course are related to asset and liability management, capital formation, bank regulation, interest rate risks, and other banking innovations and functions.

FA only

Prerequisite(s): BUS 304

BUS 356 - Applied Financial Management

4 Hour(s)

A case-study format that applies the principles and models of financial management to current business problems. All students are expected to be involved in detailed discussions of the case issues on a daily basis. In addition, ethical, moral, and social issues are addressed, where appropriate, with topics related to working capital management, capital budgeting, dividend, capital structure, financing decisions, and firm valuation. Computer technologies are used extensively to analyze issues related to case studies and the presentation of those results.

SP only

Prerequisite(s): BUS 304

BUS 360 - Career Development

4 Hour(s)

This course provides students with the tools necessary to succeed in their future careers. Students develop their business writing and communication skills as well as prepare a career action plan and resume. Networking, interviewing techniques, team work, critical thinking and self-assessment skills are also addressed as students prepare for entering the job market upon graduation.

(Course fee required)

FA only

Prerequisite(s): junior standing

BUS 399 - Applied Business Analytics Projects

2 Hour(s)

In this course, you will learn to identify, evaluate, and capture business analytic opportunities that create value. The course emphasizes that business analytics techniques are only interesting and important to the extent that they can be used to provide real insights and improve the speed, reliability, and quality of decisions. The concepts learned and applied in this class should help you identify opportunities in which business analytics can be used to improve performance and support important decisions. It should make you alert to the ways that analytics can be used - and misused - within an organization.

FA, SP

Prerequisite(s): BUS 280 and BUS 307

BUS 400 - Digital and Social Media Marketing

4 Hour(s)

The internet changed the rules of traditional marketing and brought a new medium into the marketing field. In addition, recent events such as the popularity of social media continue to highlight the importance of the internet. As a business communications and transactions channel, the internet has achieved a stature equal to that of traditional broadcast and print media. This course will introduce you to the business uses of the internet through discussions of digital marketing theories, strategies, and tools.

FA only

Prerequisite(s): BUS 301

BUS 435 - Marketing Research

4 Hour(s)

Study of the research process as an aid to data analysis in marketing management. Emphasis on the planning of research and the gathering, quantitative analysis, and interpretation of information with emphasis on net based research and primary data collection.

FA only

Prerequisite(s): CMP 114 and BUS 301

Corequisite: CMP 114 can be taken as co-requisite

BUS 479 - Consulting Management

4 Hour(s)

An integrative course intended to give students the opportunity to solve actual management problems in organizations. Class members form teams and establish a 'work world' symbiotic relationship with a local business firm while acting as consultants to the assigned client. Total quality management and a team approach are emphasized.

SP only

Prerequisite(s): BUS 302

BUS 480 - Internship in Business

1 - 12 Hour(s)

The internship in business provides students an opportunity to apply theories and concepts learned in their courses to actual work experiences under the supervision of an external supervisor and faculty instructor.

(Grading is on an S/U basis)

Prerequisite(s): Approval of the faculty instructor The student may earn a maximum of 12 credits in BUS 480 40 hours of work are needed for each credit

Restrictions: Student must be a declared major or minor in one of the programs offered by the Department of Business, Accounting, and Economics.

BUS 483 - Internship Option-Prior Work Experience

1 - 4 Hour(s)

Sufficient prior work experience in the area of finance may be substituted for the BUS 321 and BUS 480 requirement in the finance major.

(Grading is on an S/U basis).

Prerequisite(s): Approval of the department chair and the faculty instructor.

Restrictions: Student must be a declared finance major.

BUS 496 - Business Policies

4 Hour(s)

A study of the process of decision-making and the development of business policies and strategies through the use of a business simulation game in a team-building environment.

FA and SP

Prerequisite(s): ACC 206, BUS 290, BUS 301, BUS 302, BUS 304, BUS 305, and ECO 225.

BUS 498 - Independent Study in Business

1 - 4 Hour(s)

A course of study designed to widen the student's knowledge of business, organizational, and system theory. This develops the ability to study independently and demonstrate aptitude in the planning and production of original work.

FA, SP, SU

Prerequisite(s): Junior/Senior standing respectively, approval of the divisional dean and consent of instructor

Cultural Seminar

CCS 100 - Cultural Seminar

4 Hour(s)

In Carroll University's General Education program, Cultural Seminar is required for all incoming freshmen and is designed to support a student's successful transition into Carroll University as well as an introduction to cultural awareness and competency. The Cultural Seminar, CCS 100, is a course designed as a gateway learning experience through which students explore their own culture and a culture different from their own. Most Cultural Seminar sections examine a different topic, but all have common learning outcomes focused on the understanding of culture. Upon completion of CCS-100, students will have met the following learning outcomes: •Demonstrate understanding of similarities and differences between the student's own culture and a different culture. •Demonstrate understanding of multiple perspectives of a global issue through the common read and course topic. •Be able to express orally and in writing, with supporting materials, an understanding of the student's own culture and a different culture. •Demonstrate information fluency by gathering, analyzing, and synthesizing information using emerging technologies and traditional media. Students will address the following: °Demonstrate the ability to gather and integrate information from a variety of sources. °Demonstrate the abilities to assess the credibility and to weigh the value of information from different sources. °Communicate knowledge using emerging technologies. •Demonstrate familiarity with Carroll University policies, procedures and support services which will help to facilitate academic success through participation in the required PioCore course components following CCS 100. Students are encouraged to select a CCS 100 seminar topic that interests them, regardless of their intended major. Cultural Seminar topics cover a broad range of ideas and issues, but all with a focus on culture. Honors Program students should enroll in the designated honors sections (CCS 100H section A or B). Non-traditional or returning students should enroll in CCS199.

CCS 100H - Honors - Cultural Seminar

4 Hour(s)

The Cultural Seminar, which is taken in the first semester, begins the exploration of culture through the study of one's own culture and a different culture. This course develops oral communication skills through critical reading and discussion.

CCS 199 - Cultural Survey

2 Hour(s)

This course offers an alternative to the 4-credit CCS 100 - Cultural Seminar for incoming transfer and part-time students. This course introduces students to the key cultural concepts required for success in the cultural component of the General Education program, as well as introducing students to the essential support services students need for academic success.

FA, SP

CCS 300 - Cross Cultural Experience

2 Hour(s)

CCS 400 - Global Perspectives Colloquium

2 Hour(s)

The Global Perspectives Colloquium is a two-credit course for advanced students from multiple disciplines to engage in critical reading and discussion on a global issue. Students will reflect on their cross-cultural experiences, participate in student-driven discussion, and engage members of the Carroll community. Each session will focus on interdisciplinary topics chosen by individual instructors.

CCS 400H - Global Perspectives Colloquium

2 Hour(s)

In the Global Perspectives Colloquium, advanced students (usually seniors) from multiple disciplines engage in critical reading and discussion. Students reflect on their distribution courses and cross-cultural experiences while also refining their writing skills. Acceptance to the Honors Program required.

FA, SP

Chemistry

CHE 101 - General Chemistry

4 Hour(s)

General Education N1

A health science oriented survey course that introduces the basic concepts of inorganic and organic chemistry. Specific topics include: atomic theory, nuclear chemistry, compounds, chemical reactions, energy and organic functional groups.

Four hours of lecture/discussion and one two-hour laboratory.

(Required course fee)

FA, SP

Prerequisite(s): Demonstrated proficiency in high school chemistry and algebra

CHE 101L - General Chemistry Laboratory

0 Hour(s)

Laboratory component for CHE 101.

CHE 102 - Biological Chemistry

4 Hour(s)

A survey of organic chemistry and biochemistry that considers the structure and function of biomolecules (carbohydrates, lipids, proteins and nucleic acids) and their metabolism.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

SP, SU

Prerequisite(s): CHE 101/CHE 101L with a grade of C or better or CHE 109/CHE 109L

CHE 102L - Biological Chemistry Laboratory

0 Hour(s)

Laboratory component for CHE 102.

CHE 104 - Forensic Science

4 Hour(s)

General Education N1

A course that focuses on the application of scientific principles to the analysis of forensic data. The analysis and interpretation of physical, chemical, and biological tests is discussed utilizing a firm grounding in basic science. The laboratory utilizes simulated crime data and includes both basic and instrumental analyses.

Four hours of lecture/ discussion and one three-hour laboratory.

(Required course fee)

SP

CHE 104L - Forensic Science Laboratory

0 Hour(s)

Laboratory component for CHE 104.

CHE 106 - Drug Discovery

4 Hour(s)

General Education N1

A general survey of drug design and development of pharmaceuticals. This course examines the methods used in drug discovery. Topics include: the role of the FDA, clinical trials, drug action, and the pharmaceutical industry. Various sources of new drugs will be explored and several case studies will be discussed. Laboratory work will introduce students to methods and instrumentation used to develop new drugs.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

FA

CHE 106L - Drug Discovery Laboratory

0 Hour(s)

Laboratory component for CHE 106.

CHE 109 - Principles of Chemistry I

4 Hour(s)

General Education N1

An introduction to the basic concepts of modern inorganic chemistry. The topics in this course include units and measurements, stoichiometry, behavior of gases, liquids, and solids, atomic structure, the periodic table, chemical bonding and thermodynamics.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

FA, SU

CHE 109L - Principles of Chemistry I Laboratory

0 Hour(s)

Laboratory component for CHE 109.

CHE 110 - Principles of Chemistry II

4 Hour(s)

A continuing discussion of modern chemistry with a focus on quantitative analysis of chemical problems. Topics include kinetics, equilibrium, acid-base theory, and oxidation-reduction reactions. Modern instrumentation is utilized in the laboratory.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

SP, SU

Prerequisite(s): CHE 109/CHE 109L

CHE 110L - Principles of Chemistry II - Laboratory

0 Hour(s)

Laboratory component for CHE 110.

CHE 112 - Poisons, Perfumes, and Potions - Natural Products from Plants

4 Hour(s)

General Education N1

This course introduces students to the chemistry of plants. Topics include chemical defense strategies, plant communication, plant intelligence, photosynthesis, and secondary metabolism. Various uses of plant-derived chemicals will be discussed. The course also examines the cultural impact of plants. Laboratory work will introduce students to chemical separation and structural analysis.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

FA

CHE 112L - Poisons, Perfumes, and Potions - Natural Products from Plants Laboratory

0 Hour(s)

Laboratory component for CHE 112.

CHE 201 - Analytical Chemistry

4 Hour(s)

This course introduces students to the theory and practice of chemical analysis. The principles of titrimetric, spectroscopic, chromatographic and electrochemical methods are examined in terms of chemical equilibrium theory. Topics discussed include ionic equilibrium, gravimetric analysis, solubility/precipitation, acid-base titrations, complexation, potentiometry, UV-visible and atomic absorption spectrophotometry, and gas and liquid chromatography. Laboratory experiments are designed to illustrate the chemical principles discussed in class and to provide hands-on experience with modern analytical methods and instrumentation.

Four hours of lecture/discussion and one three-hour laboratory.
(Required course fee)

FA

Prerequisite(s): CHE 110/CHE 110L

CHE 201L - Analytical Chemistry Laboratory

0 Hour(s)

Laboratory component for CHE 201.

CHE 203 - Organic Chemistry I

4 Hour(s)

An introduction to the study of carbon and its compounds. Emphasis is placed on the simpler aliphatic and aromatic compounds, and functional groups. The course examines the underlying chemical principles and the mechanistic nature of organic reactions. Associated laboratory work is devoted to chemical and physical properties, as well as synthetic techniques.

Four hours of lecture/discussion and one three-hour laboratory.
(Required course fee)

FA, SU

Prerequisite(s): CHE 110/CHE 110L

CHE 203L - Organic Chemistry I Laboratory

0 Hour(s)

Laboratory component for CHE 203.

CHE 204 - Organic Chemistry II

4 Hour(s)

A continuation of CHE 203. Major emphasis is placed upon carbonyl chemistry. The use of spectroscopic techniques is explored. The latter part of the course is devoted to the study of carbonyl compounds and modern synthetic strategies. Laboratory work consists of synthetic techniques, chromatography, and structural analysis.

Four hours of lecture/discussion and one three-hour laboratory.
(Required course fee)

SP, SU

Prerequisite(s): CHE 203/CHE 203L

CHE 204L - Organic Chemistry II Laboratory

0 Hour(s)

Laboratory component for CHE 204.

CHE 301 - Capstone - Modern Chemistry I

2 Hour(s)

This course will explore current trends and career opportunities in chemistry and biochemistry. Students will complete a literature review of an emerging area of chemistry/biochemistry and prepare a review paper. Weekly on-and off-campus speakers will facilitate broad scientific and career exploration development. The course meets one day per week for two hours

FA

CHE 302 - Advanced Inorganic Chemistry

4 Hour(s)

This course emphasizes structure, bonding, reactivity, and periodicity of inorganic compounds. The laboratory includes the preparation of metal and non-metal compounds and their characterization by chemical and physical methods.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

SP, even years

Prerequisite(s): CHE 204/CHE 204L, and CHE 303/CHE 303L or CHE 304/CHE 304L

CHE 302L - Advanced Inorganic Chemistry Laboratory

0 Hour(s)

Laboratory component for CHE 302.

CHE 303 - Quantum Mechanics and Spectroscopy

4 Hour(s)

Thorough introduction to the principles of physical chemistry providing the theoretical basis of quantum chemistry and atomic and molecular spectroscopy. Laboratory experiments incorporate modern instrumental design and data analysis.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

SP

Prerequisite(s): MAT 160, and CHE 204/CHE 204L

CHE 303L - Quantum Mechanics and Spectroscopy Laboratory

0 Hour(s)

Laboratory component for CHE 303.

CHE 304 - Thermodynamics and Kinetics

4 Hour(s)

Study of reaction kinetics and the thermodynamic treatment of equilibrium in chemical systems. Topics include kinetic theory of gases, classical and statistical thermodynamics, phase equilibria, reaction rates and mechanisms. The laboratory relies on original student experimental design and data analysis of physical measurements that yield quantitative results of chemical interest.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

FA, even years

Prerequisite(s): MAT 160, CHE 204 /CHE 204L

CHE 304L - Thermodynamics and Kinetics Laboratory

0 Hour(s)

Laboratory component for CHE 304.

CHE 306 - Synthesis and Structure

4 Hour(s)

The course will consider advanced topics in organic chemistry including selected topics from advanced spectroscopy, reaction mechanisms, synthetic methodology and photochemistry. Emphasis will be on reading, understanding, and orally presenting articles from the original literature.

Four hours of lecture/discussion.

FA, odd years

Prerequisite(s): CHE 204/CHE 204L

CHE 308 - Biochemistry I

4 Hour(s)

The course investigates the properties of buffers and the related chemistry of amino acids, the structure and function of proteins including an intensive look at hemoglobin, and the structure of lipids and carbohydrates. The course also focuses on the kinetics, thermodynamics, and mechanisms of enzymatic reactions, the structure of nucleic acids, and the regulation of nucleotide biosynthesis. The laboratory serves to strengthen the understanding of these topics and includes the purification and/or characterization of several classes of biomolecules.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

FA, SP

Prerequisite(s): CHE 203/CHE 203L

CHE 308L - Biochemistry I Laboratory

0 Hour(s)

Laboratory component for CHE 308.

CHE 309 - Biochemistry II

4 Hour(s)

The course focuses on the investigation of basic topics in metabolism, including bioenergetics, carbohydrate metabolism, and lipid metabolism. Additional topics include the biosynthesis of amino acids, nucleotides, and heme.

Four hours of lecture/discussion.

SP

Prerequisite(s): CHE 204/CHE 204L and CHE 308/CHE 308L

CHE 310 - Advanced Forensic Science

4 Hour(s)

An advanced course in forensic science designed for, but not limited to, those hoping to pursue careers in criminalistics. Some of the topics will have been addressed in the survey class CHE 104 but will now be discussed in greater detail. There will be an emphasis placed on the use of primary literature.

Prerequisite(s): CHE 104/CHE 104L and CHE 204/CHE 204L

CHE 390 - Projects in Chemistry

1 - 4 Hour(s)

Students work on a research project under the direction of a faculty member. It is highly advisable for every student to participate in research projects during their educational experience. Course credit is assigned on the basis of one credit per 40 hours of laboratory work.

(Required course fee)

FA, SP

Prerequisite(s): Approval of the department chair and the consent of the instructor

CHE 391 - Special Topics in Chemistry

1 - 4 Hour(s)

This course is a study of a selected chemical topic not covered in other courses. Lecture and discussion. The topic will be announced prior to registration.

CHE 391L - Special Topics Laboratory

0 Hour(s)

Laboratory component for CHE 391.

CHE 401 - Advanced Chemical Analysis and Instrumentation

4 Hour(s)

This course will complete the student's introduction to modern chemical analysis and instrumentation. The theory and applications of chromatography and separation science will be emphasized, to include gas and liquid chromatographic instrumentation. The laboratory focuses on configuring, operating, and maintaining instruments while conducting quantitative and qualitative analyses. The course will also serve to initiate student research projects that are completed and presented in CHE 402.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

SP

Prerequisite(s): CHE 201/CHE 201L

CHE 401L - Advanced Chemical Analysis and Instrumentation Laboratory

0 Hour(s)

Laboratory component CHE 401.

CHE 402 - Capstone - Modern Chemistry

2 Hour(s)

This capstone course will involve the implementation and completion of a research project. The research project will involve the development of an experimental plan, the use of integrative laboratory analysis using a wide range of equipment and instrumentation, the collection, analysis, and interpretation of data, and the presentation of results in written and oral formats. An integral part of the course will be the inclusion of several on-and off-campus speakers focused on preparation for starting a career in the natural or health sciences.

The course meets for two hours per week plus laboratory

(Required course fee)

FA

Prerequisite(s): CHE 401/CHE 401L or consent of instructor

CHE 402L - Capstone - Modern Chemistry Laboratory

0 Hour(s)

Laboratory component for CHE 402.

CHE 480 - Internship in Chemistry

1 - 4 Hour(s)

A cooperative arrangement with industries or governmental organizations that provides students with 'real world' experiences in chemistry. The student must spend time at the company working on a specific project. The student must also be involved in answering some educational questions regarding industrial chemistry. This experience is strongly recommended for students who will be seeking an industrial position after graduation. Plans should be discussed with the instructor during the junior year.

FA, SP, SU

Prerequisite(s): Senior standing and consent of the instructor

Computational Thinking

CMP 112 - Computational Thinking I

4 Hour(s)

Introduces students to elementary statistical methods and intermediate-level uses of Excel spreadsheets with a focus on data analysis, organization, visualization, and interpretation. Students will be exposed to some essential elements of computational thinking. They will solve problems with the statistical and software tools they've learned by developing simple algorithms and using elementary mathematical models. The topics may include, but are not limited to descriptive statistics, 1 and 2-parameter tests (e.g. 2 independent sample t-tests) as well as correlation and regression. Probabilistic models will be used to simulate stochastic processes and develop concepts in algorithmic thinking and mathematical modeling.

FA, SP, SU

Prerequisite(s): MAT 101

CMP 112H - Honors Computational Thinking I

4 Hour(s)

Introduces students to elementary statistical methods and intermediate-level uses of Excel spreadsheets with a focus on data analysis, organization, visualization, and interpretation. Students will more deeply explore the conceptual underpinnings of computational thinking: algorithmic thinking, mathematical modeling and data analysis. They will solve problems with the statistical and software tools they've learned by developing algorithms, applying programming methods, and using elementary mathematical models. The topics may include, but are not limited to descriptive statistics, 1 and 2-parameter tests (e.g. 2 independent sample t-tests) as well as correlation and regression. Probabilistic models will be used to simulate stochastic processes and develop concepts in algorithmic thinking and mathematical modeling.

FA

Prerequisite(s): MAT 101

Restrictions: Acceptance to the Honors Program required.

CMP 113 - Computational Thinking II

4 Hour(s)

This course introduces students to the discipline of Computer Science by maintaining a balance between computing breadth and computational thinking depth. First, it serves to expose the students to the field of computing via topics such as the Internet and Web, computer networks, computer architecture, data bases, algorithms, and the history of computing. Second, it provides some depth in two areas that play important roles in fostering computational thinking - database design and programming. Third, students will gain hands-on experience in using Microsoft Access database application software, JavaScript, Scratch visual programming environment, and Microsoft Expression Web development environment.

FA, SP, SU

Prerequisite(s): CMP 112

CMP 114 - Computational Thinking II - Statistical Analysis Emphasis

4 Hour(s)

This course will continue developing computational skills, but with heavy focus on statistics. Statistical analyses to be covered will include: 1-way and 2-way ANOVA, multiple regression, and chi-square tests. Some experimental design issues will be discussed. As in course I, analyses will be done using a spreadsheet and/or statistical software, but will also include some scripting. Sections of the course may be taught for specific majors, e.g., we will offer sections of CMP 114 with a business emphasis, using an appropriate text.

FA, SP, SU

Prerequisite(s): CMP 112

CMP 114H - Honors Computational Thinking II- Statistical Analysis Emphasis

4 Hour(s)

In CMP114H, students will more deeply explore the mathematical and conceptual underpinnings of statistical techniques like the regression, ANOVA, and non-parametric methods. For example, students will perform a deconstruction of the F-ratio used in ANOVA, which yields a deeper understanding of how factor-effects are measured in ANOVA. As a signature assignment, students will design, conduct, analyze, and present an experiment by employing statistical and computational methods (e.g., programming) learned through the semester. This project would be substantially more sophisticated and rigorous than would be found in the non-honors version of the course.

SP

Prerequisite(s): CMP 112H

Restrictions: Acceptance to the Honors Program required.

CMP 330 - Computational Techniques for Life and Behavioral Sciences

4 Hour(s)

By way of a variety of examples from Life and Behavioral Sciences, students will develop data analysis, algorithmic design, and mathematical modeling skills. Possible examples are Neural Cluster Simulations, Macroeconomic Simulations, Population Dynamics, Bioinformatics, Disease Transmission Modeling, Simulating Gene Expression, and/or Bone Remodeling Models. Techniques used will include Neural Networks Models, Agent-Based Models, Differential Equations, Cellular Automata, Compartmental Models, and Stochastic Models.

SP, even

Prerequisite(s): CMP 113 or CMP 114, CSC 111 or CSC 112, and MAT 140 or MAT 160

CMP 340 - Computational Techniques for Physical Sciences

4 Hour(s)

By way of a variety of examples from the Physical Sciences, students will develop data analysis, algorithmic design, and mathematical modeling skills. Possible examples are Fluid Dynamics, ROTMOKE Magnetic Anisotropy, Mossbauer Spectroscopy, Molecular Modeling, Contaminate Models for Soil and/or Water, Stellar-structure models, or various Chaotic Systems. Techniques used will include Data Analyses, Differential Equations and Finite-Difference Simulations, Cellular Automata, Compartmental Models, and Stochastic Models.

SP, odd

Prerequisite(s): CMP 113 or CMP 114, CSC 111 or CSC 112 , and MAT 140 or MAT 160

Communication

COM 101 - Principles of Communication

4 Hour(s)

General Education S1

Introduction to human communication process. Application of principles in relational, public and mass media contexts.

FA, SP

COM 111 - Debate and Forensic Activities

1 Hour(s)

FA

Prerequisite(s): Consent of instructor

COM 130 - Media Writing

4 Hour(s)

This course introduces students to fundamental principles and skills in the field of journalism, focusing on the production of media content in a competent and ethical manner. Students will develop writing skills that cut across media platforms as well as those that are specific to the areas of print, broadcast, social media, Web and public relations.

SP

COM 140 - Media Literacy

4 Hour(s)

Today's media consumers are inundated with information and thus find it increasingly difficult to separate fact from fake news from opinion, and news from promotion. This course helps students analyze media content - verbal as well as - visual - so that they can more responsibly engage in a democratic society. The course examines the evolution of mass communication in the United States, with special focus on the critical consumption of media content. Topics include fake news, bias, and the media's role in a democracy.

COM 150 - Research Methodology

4 Hour(s)

Study of the principles of experimental, survey, textual and naturalistic methodologies.

SP

COM 200 - Interpersonal Communication

4 Hour(s)

Study of dyadic relationships. Topics include intimacy, uncertainty, disclosure, identity, competence, transactional paradigms and goals.

FA

COM 201 - Presentational Speaking

4 Hour(s)

This course prepares students to speak in a variety of rhetorical situations: as college students, employees, and opinion leaders in the community. Emphasis is on researching, preparing, organizing, and presenting a variety of speeches for varied audiences. This course offers opportunities across various modes of speech (impromptu, extemporaneous, manuscript, and memorized) and rhetorical objectives (informative, persuasive, inspirational/motivational). The interplay between audience analysis, speaker goals, delivery and a development of personal style with regard to all aspects of presentation skills will be stressed.

SP

COM 203 - Advertising

4 Hour(s)

Examines the components of an advertising campaign. Includes units on persuasion, market research, target analysis, creative strategy and media planning.

FA

COM 207 - Intercultural Communication

4 Hour(s)

General Education S1 and CCD

Identifies parameters which affect communication across cultures.

FA, SP

Prerequisite(s): ENG 170 is recommended prior to enrollment

COM 208 - Introduction to Public Relations

4 Hour(s)

Examines theory, scope, techniques, and influence of public relations in society. Includes units on public opinion, message preparation, media selection, and ethics.

SP

COM 227 - Technical Writing in Organizations

4 Hour(s)

Provides understanding of principles related to audience adaptation, format, style, research, and writing in various organizational settings.

FA odd years

COM 232 - Teams and Organizations

4 Hour(s)

This course studies the intertwined communication of teams and organizations. Teams, as small groups, shape the work that is done for an organization and how team members feel about their work and involvement. Those teams function within organizational cultures that have their own communicative benefits and challenges. This course acquaints students with the ways small group and organizational communication both contribute to, and inhibit, effective group problem-solving and decision-making performance.

FA odd years

COM 235 - Gender and Society

4 Hour(s)

Gender, communication and sociology go hand-in-hand-in-hand. We understand our own gender and attribute gender to others through words and symbols accepted in our society. This class is an opportunity for you to learn about some of the ways in which gender is constructed and performed within and across multiple cultural categories. Based on the concept of intersectionality, we will look at how communication is used to create, establish, and normalize gender and gender roles within racial, ethnic, sexuality, and socioeconomic class boundaries. We will invoke our sociological imaginations to understand what these constructions mean on the larger stage of society and how we can envision other meanings that might create other outcomes. We will take a critical and in-depth look at the world around us to see the complexity in our often taken-for-granted experiences as gendered people.

FA even years

COM 237 - Advanced Newswriting and Reporting

4 Hour(s)

Expands on existing skills, enabling students to research and write more specialized news stories for print and online media. The class will emphasize computer-assisted reporting, interviewing techniques, development of story ideas and self-editing.

SP, odd years

Prerequisite(s): COM 130

COM 241 - Communication and Conflict

4 Hour(s)

Study of interpersonal conflict processes. Emphasis on application of theory; analysis of ongoing conflict and management.

SP

COM 255 - Digital Journalism

4 Hour(s)

An introduction to visual communication, digital film & photography, and online media. The course provides a historical background, core skills in visual technologies, and practical digital applications.

SP even years

COM 257 - Podcasting

4 Hour(s)

This course introduces students to podcast production. Topics include story selection, interviewing, storytelling, and writing for the ear. Students will use audio editing software to produce podcasts suitable for distribution online.

FA Odd Years

COM 278 - Broadcast News Reporting

4 Hour(s)

Principles and techniques of broadcast news reporting, writing and editing.

SP, odd years.

COM 290 - Intro to Health Communication

4 Hour(s)

General Education S1

General Education S1. Explore concepts and theories of communication and health. Examine interpersonal issues including clinician-patient, family, and social support as well as topics of mass communication including health communication campaigns and how the news/entertainment media present and affect health information.

SP

COM 290H - Intro to Health Communication

4 Hour(s)

Explore concepts and theories of communication and health. Examine interpersonal issues including clinician-patient, family, and social support as well as topics of mass communication including health communication campaigns and how the news/entertainment media present and affect health information.

SP odd years

Restrictions: Acceptance to the Honors Program required

COM 291 - Topics in Communication

1 - 4 Hour(s)

Intensive investigation of special subject matter not covered in regular course offerings. Students may take more than one of these topics courses.

Prerequisite(s): Junior standing or consent of instructor (for 300-level)

COM 296 - Research in Communication

1 - 4 Hour(s)

Supervised research of significant problem area within communication field.

Prerequisite(s): Senior standing, approval of the divisional dean and consent of instructor

COM 298 - Indep Study in Communication

1 - 4 Hour(s)

Prerequisite(s): Junior or senior standing, approval of the divisional dean and consent of instructor.

COM 317 - Communication Criticism

4 Hour(s)

This course introduces students to the theory and practice of communication criticism. Students will apply a variety of methods to the analysis of rhetorical artifacts and develop proficiency in argumentative writing.

SP

Prerequisite(s): Junior standing or consent of instructor

COM 319 - Communication Theory

4 Hour(s)

General Education S2

Exploration of human communication theories including interpersonal, intercultural, group, persuasive, and mediated communication. Develops a working knowledge of communication theories and considers relationships between various theoretical positions.

FA

Prerequisite(s): Junior standing or consent of instructor

COM 350 - Communication Law

4 Hour(s)

Examines First Amendment communication freedoms. Considers dissent, association, academic freedom, obscenity, defamation, privacy, copyright, news gathering, electronic media regulation and other topics. Uses moot-court format.

SP FA

Prerequisite(s): Junior standing or consent of instructor

COM 370 - Communication Technology and Society

4 Hour(s)

Considers personal, ethical, legal, social and other impacts of communicating in an information-technical based society.

SP

Prerequisite(s): Junior standing or consent of instructor

COM 380 - Internship in Communication

1 - 4 Hour(s)
Student intern experience.

S/U graded

Prerequisite(s): Junior or senior standing; communication major and approval of adviser required prior to registration

COM 383 - Prior Work Experience in Comm

1 - 4 Hour(s)
Professional work experience can substitute for required internship.

S/U graded

COM 391 - Topics in Communication

4 Hour(s)
Intensive investigation of special subject matter not covered in regular course offerings. Students may take more than one of these topics courses.

Prerequisite(s): Junior standing or consent of instructor (for 300-level)

COM 396 - Research in Communication

1 - 4 Hour(s)
Supervised research of significant problem area within communication field.

Prerequisite(s): Senior standing, approval of the divisional dean and consent of instructor

COM 398 - Indep Study in Communication

1 - 4 Hour(s)
Prerequisite(s): Junior or senior standing, approval of the divisional dean and consent of instructor

COM 480 - Internship in Communication

1 - 4 Hour(s)
Student intern experience.

S/U graded

Prerequisite(s): Junior or senior standing; communication major and approval of adviser required prior to registration

COM 483 - Prior Work Experience in Comm

1 - 4 Hour(s)
Professional work experience can substitute for required internship.

S/U graded

COM 499 - Senior Capstone Seminar

4 Hour(s)

Participation in advanced research and work-oriented experiences.

FA

Prerequisite(s): Senior standing and a grade of C or better in COM 150 or consent of instructor Professional printing of capstone poster required

Criminal Justice

CRJ 103 - Introduction to Criminal Justice

4 Hour(s)

A survey of the history, structure, functions and operations of the primary components in the criminal justice system in the United States including law enforcement, courts and corrections. Includes an analysis of current issues such as discretion, sentencing practices, disparities in sentencing, and alternatives to incarceration.

FA, SP

CRJ 130 - Culture and Crime

4 Hour(s)

General Education S1

This course examines the American culture and society to understand why and how it perpetuates criminal lifestyles. It illustrates how America's vision of economy, morality, and race determines how the criminal justice system operates, the policies the criminal justice system follows, and the creation of criminal statistics. In essence, it helps form the notion that crime and criminals are a product of society and culture. This class is a general distribution course and does not count towards the criminal justice major or minor. does count for sociology elective in major and minor

SP

Also Offered As: SOC 130

CRJ 204 - Criminal Law

4 Hour(s)

An examination of the nature, variety and sources of criminal law and the relationship of criminal law to theories of punishment and social control. Includes the classification of crimes, as well as the creation, organization and content of criminal law.

SP odd years

Prerequisite(s): CRJ 103

CRJ 212 - Criminology

4 Hour(s)

A survey of connections between theory and policy. This course explores criminological theory with respect to criminal behavior systems and criminal processing systems. Policies are illustrated and analyzed to show connections between policies of the criminal justice system and theoretical guidance of those policies.

SP

Prerequisite(s): CRJ 103

CRJ 213 - Race and Ethnicity Studies in Criminal Justice

4 Hour(s)

General Education S2 and CCD

This course examines the historical and present role of various races and ethnicities in the criminal justice system. Readings and discussions focus on the statistics and disparities found in arrests, charging, convictions, and sentencing. The course provides rationales for why racial and ethnic minorities appear to be less privileged by systems including law, discrimination, and poverty.

FA

Prerequisite(s): CRJ 103 or CRJ 130/SOC 130

Also Offered As: SOC 213

CRJ 224 - Dynamics of Terrorism

4 Hour(s)

This course surveys contemporary terrorism both domestic and international. The course will examine controversies in defining terrorism; explore the historical roots of terrorism; examine terrorist motivations, organization and strategies; and explore ways in which countries can respond to the threat of terrorism. Counter-terrorism and the ways that law enforcement and courts manage terrorism in the United States.

SP even years

CRJ 229 - Understanding Violence

4 Hour(s)

This course adds an introduction to psychology theory to criminology and specifically violence. It demonstrates how and why violence is enmeshed in our society tracing the causes and consequences of violence throughout history and our society. It uses psychological and criminological theory to dissect policies surrounding violence to explain the ways our society has tried to limit violence through punishment and treatment.

SP odd years

Prerequisite(s): CRJ 103

CRJ 250 - Dissecting Truths of the Criminal Justice System

4 Hour(s)

General Education S2

This course examines the current trends and movements of the criminal justice system through investigation of truths and misconceptions perpetuated in our society. We will analyze media accounts, personal ideas and values, and public perceptions that surround what we know about the criminal justice system. As a class we will develop the top ideas to investigate and use scholarly sources such as books, journal articles, and guest speakers to determine the truths of our criminal justice system. We also will scrutinize crime measurement, media, policy creation, program implementation, and the goals of the criminal justice system to help determine the difference between truth and misconceptions.

SU

CRJ 252 - Law Enforcement and Justice

4 Hour(s)

This course examines the function of law enforcement in the pursuit of justice. It fosters an appreciation for the role law enforcement has in society and culture while examining constitutional responsibilities and agency objectives. Topics include a wide range of social justice, legal boundaries, and ethical concerns including corruption, use of force, interrogation and confessions, search and seizure, and community relations.

FA

Prerequisite(s): CRJ 103

CRJ 291 - Special Topics in Criminal Justice

4 Hour(s)

Study of a selected topic in criminal justice that is not covered in regular course offerings. Generally takes a lecture and discussion format. The topic will be announced prior to registration.

Prerequisite(s): CRJ 103 is required

CRJ 298 - Independent Study in Criminal Justice

4 Hour(s)

A course for students who have completed the necessary background courses in a specific area and wish to work with a faculty member to extend their study in that area. Students considering this course must get the approval of the divisional dean and consent of the instructor during the previous semester at least two weeks prior to registering for the course. Results of the study will be presented to the criminology faculty.

FA, SP, SU

Prerequisite(s): Criminology major, junior standing, and consent of the instructor

CRJ 307 - Corrections, Policy and Justice

4 Hour(s)

A study of the history, trend, purpose, organization and practice of corrections in American society. Includes jails, probation, intermediate sanctions, corrections in the community, prisons and supervision after release. Includes issues such as restorative justice, offender rights and incarceration of women, juveniles, special needs populations and members of minority groups. May not be counted toward a sociology major or minor.

SP odd years

Prerequisite(s): CRJ 103, CRJ 212, SOC 266 and ENG 199

CRJ 319 - Juvenile Delinquency

4 Hour(s)

A general survey and analysis of juvenile delinquency. Includes explanations of juvenile delinquency as deviant behavior with an emphasis on the nature, extent and causes of delinquency. Explores factors such as social structure, school, family and peers that have a major impact on juveniles. Also explores the role of police courts and the nature and history of attempts to control, prevent and treat delinquents.

FA even years

Prerequisite(s): CRJ 103, CRJ 212, SOC 266 and ENG 199

CRJ 323 - Court processes, decisions, and ethics

4 Hour(s)

The class discusses the role of ethical decision making by courtroom actors throughout the court processes of pretrial, trial, and sentencing. Through readings, guest speakers, field exploration, and case studies you will analyze and decode ethical actions and decisions of the court.

SP even years

Prerequisite(s): CRJ 103, CRJ 212, SOC 266 and ENG 199

CRJ 332 - White Collar and Environmental Crime

4 Hour(s)

Examines cultural, societal, and ecological aspects of white-collar and environmental crime using rational-choice theory, social constructionism, environmental justice, and other criminological and sociological theoretical perspectives. Explores questions about white-collar and environmental crime such as their forms, data sources, offenders, victims and costs, and societal, regulatory, and criminal justice responses. Students analyze selected case study on topics ranging from financial crimes and nursing home fraud to poaching, corporate environmental illegalities, and global environmental crimes. Suitable for majors in sociology, criminal justice, political science, business, public health, health care administration, environmental science, animal behavior, and others.

FA even years

Prerequisite(s): CRJ 103 - Introduction to Criminal Justice or CRJ 130 - Culture and Crime

CRJ 340 - Victims and Victimology

4 Hour(s)

This course examines the historical and present role and plight of the victim in the criminal justice system. Students specially will investigate theories of victimization, experiences of victims in the system, victim offender relationship, and crime presentation strategies. In this class, special emphasis will be placed upon restorative justice principles and victim assistance programs.

FA odd years

Prerequisite(s): CRJ 103, CRJ211 or CRJ 212, SOC 266 and ENG 199

CRJ 345 - Women, Gender, and Crime

4 Hour(s)

This course develops knowledge about the role women and gender has upon crime. It focuses upon offending, victimization, labeling crimes, working in the system, and how the system processes different individuals. Theory is examined as well current research to seek out problems and possible solutions. This is a seminar course meaning much of the work is student-driven.

FA odd years

Prerequisite(s): CRJ 103, CRJ 212, SOC 266, and ENG 199

CRJ 391 - Special Topics in Criminal Justice

4 Hour(s)

Study of a selected topic in sociology that is not covered in regular course offerings. Generally takes a lecture and discussion format. The topic will be announced prior to registration.

Prerequisite(s): CRJ 103 is required

CRJ 398 - Independent Study in Criminal Justice

4 Hour(s)

A course for students who have completed the necessary background courses in a specific area and wish to work with a faculty member to extend their study in that area. Students considering this course must get the approval of the divisional dean and consent of the instructor during the previous semester at least two weeks prior to registering for the course. Results of the study will be presented to the criminology faculty.

FA, SP, SU

Prerequisite(s): Criminology major, junior standing, and consent of the instructor

CRJ 480 - Internship in Criminal Justice

2 or 4 Hour(s)

The internship course is a semester long field experience. It provides an opportunity for criminal justice majors to work in a designated agency or institution under faculty and agency supervision. Includes reflection journals to see how your internship connects to other class coursework.

FA, SP, SU

Prerequisite(s): CRJ 103, CRJ 212, IDS 200, Junior or Senior standing, criminal justice major, consent of internship instructor and a minimum of 2.6 grade point average in courses in the major

CRJ 499 - Capstone - What works in criminal justice policy

2 Hour(s)

Students will explore the historical relevance of criminal justice policies by analyzing the rationale behind the policy and the effect of the policy. Evidence-based principles and criminological theories provide a foundation for this analysis. Students will create a policy proposal to help local criminal justice agencies.

FA, SP, SU

Prerequisite(s): SOC212, SOC 266, ENG 199, senior standing

Computer Science

CSC 110 - Problem Solving through Programming

4 Hour(s)

This course is designed as a first-semester foundation course for those students planning to major or minor in computer science and for others with an interest in the area. The course is about developing problem solving and structured programming skills, using the computer as a tool for solving problems. It covers the development of computer programs while focusing on the use of Dijkstra's structural programming principles with sequence, iteration, selection, and top-down structural program decomposition at its core.

FA, SP

CSC 111 - Introduction to JAVA

4 Hour(s)

This course studies the Java programming language, which is used to promote the student's understanding of object-oriented concepts (classes, methods, abstraction, inheritance, polymorphism, and encapsulation) in conjunction with algorithm design, style, debugging and testing.

SP

Prerequisite(s): CSC 110

CSC 220 - Information Systems

4 Hour(s)

This course will provide the student with an understanding of the fundamental aspects of Information Systems. The student will be exposed to the various types of information systems found in business and accounting environments; encompassing operational, tactical and strategic systems. The student will also learn of the developmental processes involved in creating, implementing and securing an information system.

FA, SP

CSC 226 - Data Structures using JAVA

4 Hour(s)

This course focuses on the object-oriented paradigm, with particular reference to the design and implementation of data structures such as: stacks, queues, linked lists, and trees. Java collections framework and searching algorithms are also introduced. The course builds on the concepts introduced in CSC 111 to allow students to use and write their own classes and objects.

FA

Prerequisite(s): CSC 111 or equivalent

CSC 240 - Computer Organization and Architecture

4 Hour(s)

This course is an introduction to computer organization and architecture-the study of computer hardware at the abstract functional subunit (register, arithmetic and logic unit, data path and control) level and the arrangement and interconnection of those components to form a modern electronic computer's central processing unit (CPU). An essential part of this study also includes an examination of the design and implementation of low-level machine language instruction sets that are ultimately used to manipulate the hardware. An understanding of computer organization and architecture helps the Computer Science professional in making knowledgeable and reasoned decisions about specifying computer hardware and software when confronted by a choice between what can be a bewildering array of options.

SP

CSC 303 - Network Protocols

4 Hour(s)

This course provides a unified view (both theoretical and applied) of the broad field of data communications and networking. Topics: data transmission, data encoding, data link control, multiplexing, circuit switching, packet switching, radio and satellite networks, local area networks (LANs), wide area networks, and protocols. Networking trends for the future will be covered.

FA

CSC 307 - Operating Systems and Web Master Fundamentals-Unix/Linux Apache

4 Hour(s)

This class covers the elements and design of Win32 and UNIX/Linux operating systems, the fundamentals of system administration, and the installation, configuration and maintenance of the Microsoft IIS and Apache Web Servers. Problems such

as concurrence, communication, and security will be addressed.

FA

CSC 319 - World Wide Web Programming

4 Hour(s)

This hands-on course introduces the development of dynamic Web sites. It focuses on Web programming fundamentals and mastery of one of the current server-side technologies.

FA, even years

Prerequisite(s): CSC 110

CSC 323 - Programming Languages

4 Hour(s)

The objective of this course is to develop in students an understanding of the design and uses of different kinds of programming languages. Several programming languages will be examined including C, C++, Ada, and Lisp/Scheme. Issues considered include: the formal specification of programming language syntax, language design, translator design, and run time behavior of programs. Representatives of various kinds of languages such as assembly level, object-oriented, functional, logical, etc., are examined and students have the opportunity to solve problems in these languages. In addition, students may focus on a particular language of their choice to gain deeper understanding of its design issues.

Prerequisite(s): CSC 226

CSC 341 - Software Design and Development

4 Hour(s)

This course presents a formal approach to state-of-the-art techniques in software design and development, and the means for students to apply the techniques. Formal models for capturing requirements for object-oriented and procedural designs are presented and used in the course. Other topics include Unified Modeling Language, Design Patterns, and various design principles and guidelines.

SP

Prerequisite(s): CSC 226

CSC 351 - Database Design and Implementation

4 Hour(s)

The emphasis in this course is on the design and construction of databases as tools in business. Concepts covered include entity-relationship modeling, normalization, and efficient table design. Programming with SQL is stressed using a professional Database Management System. The role of databases in Web applications is particularly considered.

FA

Prerequisite(s): CSC 111

CSC 353 - Mobile Application Development

4 Hour(s)

Mobile devices (primarily tablets and smart-phones) are used by millions for purposes requiring mobile applications. This includes using the devices to access remote information and a myriad of job-related and recreational uses. The number of apps

currently available for distribution at the App-Stores for the most popular mobile platforms is in excess of one million, and growing rapidly. This course will cover developing applications using the current most popular mobile platforms, (e.g., as of 2013 this might include Google Android, Apple iOS, Window 8). This will allow for compare/contrast discussions. Differences between desktop computing and mobile computing will be covered. Development tools for mobile apps will be discussed.

FA, odd years

Prerequisite(s): CSC 110

CSC 409 - Information Technology Mgmt in an E-Commerce World

4 Hour(s)

The emphasis of this class is on the management of information technology within an organization and the use of information technology from a strategic, tactical and operational perspective. The current trends towards e-business and e-commerce are integrated throughout. The class is concerned with the management issues surrounding information technology today. Topics include technology trends, IT planning and strategy, management of end-user computing, network management, asset protection, ethical considerations, in-house or outsourcing the hosting of a Web site, choosing a suitable host, Web site privacy issues/statements, and people management skills.

SP, even years

Prerequisite(s): Junior standing

CSC 421 - Algorithms

4 Hour(s)

This course teaches essential strategies of algorithm design and analysis, including topdown design, divide and conquer, average and worst-case criteria, and asymptotic costs. Simple recurrence relations for asymptotic costs and choice of appropriate data structures such as arrays, lists, stacks, queues, trees, heaps, priority queues, graphs, hash tables may also be covered. Applications to sorting and searching, graph algorithms, matrix algorithms, shortest-path and spanning tree problems, and discrete optimization algorithms such as dynamic programming and greedy algorithms are also stressed.

Prerequisite(s): CSC 226

CSC 431 - Artificial Intelligence

4 Hour(s)

This course provides an introduction to the basic theoretical concepts of artificial intelligence, emphasizing the role of AI techniques for game programming.

Occasionally

Prerequisite(s): CSC 111

CSC 436 - Theory of Computation

4 Hour(s)

This course is concerned with the theory of computers, i.e., the forming of several abstract mathematical models that describe computers and similar machines and their capabilities. Topics covered include: Finite Automata, Pushdown Automata, Turing machines, the Chomsky Hierarchy and P and NP problems.

Prerequisite(s): CSC 226

CSC 440 - Software Engineering

4 Hour(s)

This course presents state-of-the art techniques in software design and development. Topics will include the software engineering lifecycle and current approaches to software development management, including formal methods, software metrics, agile methodologies and other innovative techniques. In addition the course will cover version control, software maintenance and quality assurance. A semester-long software development experience is provided.

FA

Prerequisite(s): CSC 341

CSC 450 - Projects-Computer Science Majors

4 Hour(s)

This course requires students to work on a real-world project, and is a very demanding course open only to majors in their senior year. The course allows students to select, design, code, document and formally present a substantial project of their own choosing.

SP

Prerequisite(s): Completion of ALL required CSC prefix coursework and consent of instructor.

CSC 480 - Internship I

4 Hour(s)

The course provides professional work experience in computer science or information technology under the supervision of faculty and industry personnel. Written report is required at the end of internship. The course may be taken concurrently with CSC 481 and CSC 482. 160 hours of work is needed for this course.

FA, SP, SU

S/U graded

Prerequisite(s): Junior or senior standing, a completion of half of the required CSC courses for your major (IT or CS), and consent of instructor required prior to registration.

CSC 481 - Internship II in Computer Science

4 Hour(s)

The course provides additional professional work experience in computer science or information technology under the supervision of faculty and industry personnel. Written report is required at the end of internship. 160 hours of work is needed for this course.

FA, SP, SU

S/U graded

Prerequisite(s): CSC 480 (or take concurrently) and consent of instructor required prior to registration.

CSC 482 - Internship III in Computer Science

4 Hour(s)

The course provides additional professional work experience in computer science or information technology under the supervision of faculty and industry personnel. Written report is required at the end of internship. 160 hours of work is needed for this course.

FA, SP, SU
S/U graded

Prerequisite(s): CSC 481 (or may concurrently with CSC 480 & CSC 481) and consent of the instructor required prior to registration.

CSC 490 - Workshop in Computer Science

4 Hour(s)
Information Technology

Prerequisite(s): Approval of the divisional dean and consent of instructor

CSC 491 - Special Studies/Topics

1 - 4 Hour(s)
This course offers a study of a selected topic not covered in regular curriculum with lectures and/or discussions. The topic will be announced prior to registration.

Prerequisite(s): Consent of instructor

CSC 492 - Seminar

4 Hour(s)
This is an advanced course of study involving individual research. Discussion of this research takes place through informal group participation.

Prerequisite(s): Approval of the divisional dean and consent of instructor

CSC 496 - Research in Computer Science

4 Hour(s)
Information Technology Advanced research is designed to permit individual students or groups of students to undertake special projects related to their educational interests and goals.

Prerequisite(s): Approval of the divisional dean and consent of instructor

CSC 498 - Independent Study

1 - 4 Hour(s)
Independent study is designed to offer a study of selected areas under the supervision of one or more faculty. Four credits maximum applied toward degree.

Prerequisite(s): Approval of divisional dean and consent of instructor

Economics

ECO 105 - History of Economic Thought

4 Hour(s)

A survey of major schools of economics and trends in economic thought from the time of mercantilism to the present. Emphasis is on the ideas and writings of Smith, Malthus, Ricardo, Marx, Keynes, and selected contemporary economists such as Galbraith and Friedman.

FA

ECO 124 - Principles of Economics I - Microeconomics

4 Hour(s)

General Education S1

An intensive analysis of the microeconomics theory that explains the market's determination of prices, resource allocation, and distribution of goods and services.

FA and SP

ECO 225 - Principles of Economics II - Macroeconomics

4 Hour(s)

General Education S1

An intensive analysis of the macroeconomic theory that explains the aggregate behavior of our economy and its public and private policy implications.

FA and SP

ECO 306 - Microeconomic Theory

4 Hour(s)

General Education S2

An examination of modern price theory with specific emphasis on consumer demand, production and cost, the firm and market organization, and theory of distribution.

FA

Prerequisite(s): ECO 124

ECO 307 - Macroeconomic Theory

4 Hour(s)

General Education S2

A study of the analytical core and the central issues of the measurement and determination of the level of national income, fluctuations, and growth. Fiscal and monetary policy effects on unemployment and inflation are examined.

SP

Prerequisite(s): ECO 225

ECO 314 - Econometrics

4 Hour(s)

This course is an undergraduate course in econometrics focusing on the basics of econometrics essential to empirical research. The course will begin with the classical regression model, and then allow for violations of the classical model. The course will then focus on time series estimation methods including ARIMA modeling techniques.

FA

Prerequisite(s): CMP 114 and either ECO 124 or ECO 225

ECO 343 - Money and Banking

4 Hour(s)

The nature of money, the behavior of commercial banks, and the function of the Federal Reserve System are examined. The role of money in the economy is analyzed within the framework of the classical, Keynesian, and monetarist theories of the demand for money.

FA

Prerequisite(s): ECO 225

ECO 363 - International Economics

4 Hour(s)

A survey of the global economy, with emphasis on international trade theory, international finance, monetary markets, commercial policies, economic integration, and major international institutions.

SP

Prerequisite(s): ECO 124 and ECO 225

Education

EDU 102 - Exploration in Education and Society

4 Hour(s)

The purpose of this course is to introduce the field of education as a significant cultural function in society. Through active engagement in class discussion, interaction with guest speakers, and participation in field explorations, the course examines a variety of elements in the social and cultural environments in which schooling occurs. Students will: (a) reflect on their own experiences as learners, (b) reflect on the environments in which formal and informal education occurs, (c) examine elements of and issues faced by professionals working in various traditional and non-traditional educational settings, (d) critically review the knowledge, skills and dispositions necessary for doing such work, (e) survey the historical and philosophical foundations of education, and (f) learn how education is grounded in sociocultural theories.

FA, SP

EDU 202 - Intercultural Context in Education

4 Hour(s)

This course is designed to foster cultural awareness at the individual and systemic levels and to promote equity, anti-racist behaviors, and social justice in educational practices. Intercultural and multicultural education describe education policies and practices that recognize, accept, and affirm human differences and similarities related to gender, race, religion, linguistic diversity, disability, class and sexuality. To aid in this process, students will work to understand and question how differences and norms are conceptualized. A required twenty-hour field experience supplements the content and context of the course.

FA, SP

Prerequisite(s): EDU 102 and completion or concurrent enrollment in EDU 203

Concurrent enrollment in EDU 261 and EDU 210 recommended

EDU 203 - Educational Psychology

4 Hour(s)

This course examines how children, early adolescents, and adolescents develop and learn, with particular emphasis upon the classroom. Students will engage in the study of principles and theories of cognitive, social, emotional, moral and physical development, complex cognitive processes, memory, constructivism, motivation, and the creation of a positive learning environment.

FA, SP

Prerequisite(s): Completion of or concurrent enrollment in EDU 102

EDU 210 - Field Experience in Education I

1 Hour(s)

A pre-student teaching practicum in an assigned classroom in an area school. Grade level or subject is determined by the student's certification intentions. Throughout the semester, students complete a minimum of 40 student contact clock hours in the assigned classroom. This is achieved by attending a minimum of ten (10) full school days. Seminars accompany experiences in the school. Students must attend all seminars to receive course credit. A multicultural placement, determined by the Education Placement Coordinator is required in either EDU 210 or EDU 311/EDU 312. Students are responsible for their own transportation to placements not within walking distance of campus.

FA, SP

S/U graded.

Prerequisite(s): EDU 102 Satisfactory results of a TB test is required

EDU 215 - Intercultural Immersion Field Experience I

2 Hour(s)

The purpose of this course is to provide participating students with a cross cultural and/or international immersion experience. The course carries CCE credit in the Pioneer Core. Open to non-education students. All students are engaged through reflection, reading and seminar discussion. Seminars will be held prior to, on-site and post-experience. For education students, the Carroll University field experience program promotes reflective classroom practice commensurate with the Education Department's Guiding Dispositions and InTASC Standards.

Occasional offerings in FA, SP, WN, SU

S/U graded.

Prerequisite(s): EDU 100/EDU 102, completion or concurrent enrollment in EDU 203, or consent of instructor Additional requirements are subject to specific placement

EDU 216 - Foundations of Multilingual Education

4 Hour(s)

This course explores different theories of language, second language acquisition, and multilingualism within the field of education. We will examine historical and contemporary U.S. language policies and survey existing program models for emergent bilingual students. We will also investigate basic assessment issues for English Learner-identified students including:

classroom-based versus standardized assessments, norming procedures, and differences between assessments for content and language proficiency.

EDU 220 - Applied Linguistics for Educators

4 Hour(s)

This course will prepare pre-service teachers to better meet the linguistic and academic needs of emergent bilingual students by providing an overview of linguistics within the field of education. Students will explore basic linguistic and sociolinguistic concepts, including: English phonology, morphology, syntax, and pragmatics. Crucially, students will relate these concepts to classroom teaching and assessment through a case study project with a multilingual K-12 student.

EDU 234 - Language Development and Disorders of the Exceptional Child

4 Hour(s)

This course is designed to present background information about normal language development as a foundation for evaluating speech and language disorders in children. Emphasis will be placed on current techniques for the identification of language disorders in school-age children as well as methods for enhancing their language skills.

SP

Prerequisite(s): EDU 261

EDU 246 - Development, Observation and Assessment in Early Childhood

4 Hour(s)

This course is focused on the study of principles and theories of child development from birth to age eight in cognitive, affective, psychomotor, social, and language domains. Cross-cultural perspectives of development are considered. Students will gain strategies for observation and its uses both as a curriculum guide and as an assessment tool. The course offers an overview of other forms of assessment, including criterion-referenced and standardized tests. Students will learn about developmentally appropriate assessment tools.

EDU 248 - Home, School, Community Relationships

4 Hour(s)

This course focuses on developing an understanding and acceptance of the diversity of contemporary families and the range of strengths that they can contribute to the education process. Students will develop skills in communicating with, working with, and educating parents, families, advisory groups, community resource agencies, pupil services, and support staff. Additionally, this course examines home and classroom behavior management strategies appropriate for young children.

SP

Prerequisite(s): EDU 203

EDU 249 - Development, Observation, and Assessment

4 Hour(s)

This introductory course provides principles and theories of learner development in cognitive, affective, psychomotor, social and language domains. The course provides the core theoretical and practical background knowledge necessary to understand development and assess and observe learners. Students will develop strategies for using observation as a curriculum guide and as an assessment tool. An overview of educational assessments and diagnosis of individuals with developmental differences will be provided. Emphasis will be placed upon universal teaching and learning practices.

Prerequisite(s): EDU 203, Completion or concurrent enrollment in EDU 261

EDU 250 - Collaboration and Inclusion

4 Hour(s)

This course is designed to expand and deepen students' knowledge, understanding and skills to increase the effectiveness of interactions with education professionals, community agencies, and families for the purpose of supporting students with disabilities. The readings, activities, projects, and class interactions will build capacities for participants to gain personal, professional, family and systemic perspectives to increase the quality of intra-and interpersonal skills. The class is structured to provide each learner the opportunity to initiate, analyze, activate and evaluate their learning within the context of the content. This course will assist students in developing their understanding of the Education Department's guiding principles specifically, Cultural Sensitivity and Reflection, and Wisconsin Model Standards for teaching (Standards 3, 9 and 10)

FA, SU-occasionally

Prerequisite(s): EDU 248, EDU 261

EDU 261 - Introduction to Inclusive Education

4 Hour(s)

Introduction to special education and teaching students with exceptional needs. This course provides an overview of legal issues, identification and assessment of students with special needs. Emphasis is placed on teaching strategies used to educate students who have diverse learning and behavioral needs.

FA, SP

Prerequisite(s): EDU 203

Concurrent enrollment in EDU 202 and EDU 210 recommended.

EDU 290 - Instructional Design for the Early Adolescent/Adolescent Learner

2 Hour(s)

This course provides a practical overview of early adolescent/adolescent behavior, curriculum planning, instructional methodology, and assessment applicable to teaching and learning at the secondary level. As a class, we will work to understand and question how we conceptualize what it means to be a teacher and a learner. Candidates explore how teachers engage in practices that establish high expectations for all students and encourage, develop, and support learning by all students.

SP

Prerequisite(s): EDU 203

EDU 301 - Democracy, Schools, and Society

4 Hour(s)

The study of social, political, philosophical, and historical issues and antecedents of K- 12 schooling and curriculum. Consideration of traditional, alternative, and innovative approaches to curriculum. Study of social concerns affecting the schools; the organization, administration, and financing of schools; alternative schooling; the world of work and the future of education.

Prerequisite(s): EDU 202, EDU 203

EDU 302 - Educational Advocacy

4 Hour(s)

This goal of this course is to develop informed and effective educational advocates. This course analyzes current educational policies, trends and issues from a) historical, philosophical, and social foundations perspectives and, b) school, district, national, and global contexts. The course examines school and education governance structures, and the impact of legal, political, and

economic factors on school organization, operation, policy making and administration. Through a semester long individualized research project and course topics, students will explore ways to develop a sustaining professional identity that includes a constructivist perspective, critical consciousness, educational advocacy and professional integrity.

FA, SP

Prerequisite(s): EDU 202, EDU 203

Concurrent enrollment in EDU 311 and EDU 360 encouraged.

EDU 306 - Literacy in the Disciplines

4 Hour(s)

This course examines literacy acquisition in general and discipline specific domains for learners in grades 4-12. The development and acquisition of literacy will be explored including the role of oral language, phonemic awareness, phonics, fluency, vocabulary, and comprehension. An overview of the literary canon and young adult texts will be provided. We will explore instructional and assessment practices within the disciplines and plan instruction using evidenced based strategies. Lastly, we will explore the unique role technology places within literacy practices including the construct of online reading comprehension.

FA

Prerequisite(s): EDU 203 and admission to the TEP

EDU 311 - Field Experience in Education II

1 Hour(s)

A pre-student teaching practicum in an assigned classroom. Grade level or subject is determined by the student's certification intentions. Throughout the semester, students complete a minimum of 40 student contact clock hours in the assigned classroom. This is achieved by attending a minimum of ten (10) full school days. Campus seminars accompany experiences in the school. Students must attend all seminars to receive course credit. The 311 field experience is distinguished from the 210 experience by an added measure of student responsibility for active involvement in classrooms. Seminars will emphasize preparation for and discussion of the added involvement. A multicultural placement, determined by the Education Placement Coordinator, is required in either EDU 210 or EDU 311/EDU 312. Students are responsible for their own transportation to placements not within walking distance of campus. This experience must be completed at Carroll and not in a school district where the candidate is employed.

FA, SP

S/U graded.

Prerequisite(s): Successful completion of EDU 102, EDU 210 or EDU 215, completion of or concurrent enrollment in a methods course, satisfactory results of a TB test and admission to the TEP are required

EDU 312 - Field Experience-Adaptive Education

1 Hour(s)

A pre-student teaching practicum in a non-categorical special education setting. Students work between four and six hours per week for a semester total of 40 clock hours Or this can be achieved by attending a minimum of ten (10) full school days, a consideration for candidates who work Full Time. Campus seminars accompany experiences in the school. The 312 field experience is distinguished from the 210 experience by an added measure of student responsibility for active involvement in classrooms. Seminars will emphasize preparation for and discussion of the added involvement. A multicultural placement, determined by the Education Placement Coordinator, is required in either EDU 210 or EDU 311/312. Students are responsible for their own transportation to placements not within walking distance of campus. This experience must be completed at Carroll and not in a school district where the candidate is employed.

FA

S/U graded.

Prerequisite(s): EDU 102, EDU 203, EDU 210 or EDU 215, EDU 261, completion of or concurrent enrollment in a methods course, satisfactory results of a TB test, and admission to the TEP

EDU 315 - Intercultural Immersion Field Experience II

2 Hour(s)

The purpose of this course is to provide participating students with a cross cultural and/or international immersion experience. The course carries CCE credit in the Pioneer Core. Students are engaged through reflection, reading and seminar discussion. Seminars will be held prior to, on-site and post-experience. The Carroll University field experience program promotes reflective classroom practice commensurate with the Education Department's Guiding Dispositions and InTASC Standards.

Occasional offerings in FA, SP, WN, SU

S/U graded

Prerequisite(s): EDU 102, EDU 210 or EDU 215, completion or concurrent enrollment in a methods course, admission to the TEP, additional requirements are subject to specific placement

EDU 321 - Social Studies in the Elementary /Middle School

2 Hour(s)

This course is an examination of the objectives and techniques of teaching social studies in the elementary/middle school. Instruction includes the study of curriculum materials, methods, assessment and evaluation. Curriculum integration is examined through science and social studies. Students are challenged to develop lessons and use instructional strategies that help prepare children for active citizenship in a democratic and multicultural society. This course also provides opportunities for practical application of the course content.

Prerequisite(s): EDU 203 and admission to the TEP

EDU 323 - Literacy I: Early Childhood - Middle Childhood

4 Hour(s)

This course examines literacy in the social, intercultural and educational context. Students explore theories of literacy acquisition including the foundational components of oral language, listening comprehension, and graphophonemic knowledge. Emphasis is placed on culturally responsive assessment and instructional strategies for emergent readers. Children's literature is analyzed and explored as an instructional tool in the elementary classroom. Course-embedded fieldwork in an elementary literacy setting is included.

FA

Prerequisite(s): EDU 202, EDU 203 and admission to TEP

Concurrent enrollment with EDU 326 recommended.

EDU 324 - Literacy II: Middle Childhood - Early Adolescence

4 Hour(s)

This course examines literacy in the social, intercultural and educational context. Throughout the course, a variety of children's and early adolescent literature is used to model a comprehensive literacy approach. Using the Common Core Standards as the framework, this comprehensive literacy program has students explore, incorporate, and implement effective instructional and assessment strategies to develop literacy in middle childhood and early adolescent learners. A semester-long practicum in an elementary school is required.

SP

Prerequisite(s): EDU 323 and admission to TEP
EDU 325 is recommended.

EDU 325 - Science and Social Studies in the Elementary/Middle School

4 Hour(s)

This integrated course is designed to develop competencies for teaching elementary and middle level science and social studies. Students are challenged to explore instructional strategies and resources that help prepare children for active citizenship in a democratic society. Science topics, including environmental education and social studies themes will be explored with a focus on state and national standards. Course content includes the study of curriculum materials, methods, assessments. This course also provides opportunities for practical application of the course content.

Prerequisite(s): Admission to TEP
EDU 324 is recommended.

EDU 326 - Mathematics in the Elementary/Middle School

4 Hour(s)

Students develop understanding of mathematics content and pedagogies to facilitate teaching and learning in K-8 classrooms. Emphasis is on problem solving and constructivism and their implications to mathematics instruction. Course includes analysis of the CCSSM Content and Practice standards and NCTM's Principles and Standards. Course includes fieldwork to support students' understanding of how children learn mathematics. Students implement appropriate and effective assessments.

FA

Prerequisite(s): EDU 203, MAT 201, and admission to the TEP
Concurrent enrollment in EDU 323 recommended.

EDU 327 - Science Methods in the Elementary/Middle School

2 Hour(s)

This course is designed to develop competencies in selecting methods and resources for teaching elementary and middle level science. All strands of science will be explored including environmental education. An emphasis is placed on effective instructional strategies, assessment, and the relationship of science to social studies.

Prerequisite(s): EDU 203 and admission to the TEP

EDU 330 - Introduction to Diagnostic Assessment of Students with Exceptional Needs

4 Hour(s)

This introductory course provides core theoretical and practical background necessary to evaluate students having exceptional educational needs. An overview of educational assessment and diagnosis of individuals with disabling conditions will be provided. Emphasis will be placed upon testing for IEP development and teaching.

FA

Prerequisite(s): EDU 261

EDU 332 - Instructional Strategies for an Inclusive Classroom

4 Hour(s)

This course is designed to facilitate the education student's knowledge, skills and disposition to increase the effectiveness of teaching for the inclusion of children with special needs in the classroom. This will include content, strategies, and structuring the

environment to make inclusion a viable experience for the special needs student. Classroom management will also be explored as it relates to the special needs of the students.

FA, SP

Prerequisite(s): EDU 261

EDU 335 - Methods of Teaching and Learning with Emergent Bilingual Students

4 Hour(s)

This course is designed to prepare pre-service teachers to make connections between theory and methods for teaching and learning with emergent bilingual (EB) students. It will focus on integrating the teaching of language and academic content; designing instruction, curricular materials, and classrooms to facilitate language acquisition for English Learner-identified students. Class periods will revolve around an interactive exploration of research-based instructional practices for EB students.

EDU 340 - Multiple Literacies and Multilingualism in Education

4 Hour(s)

This course will prepare pre-service teachers to connect their classroom literacy practices to critical theories of multiculturalism and dynamic language use. The course begins with an overview of teaching and learning through multicultural children's literature, and then shifts to focus on new technologies to support emergent bilingual students' multilingual learning. Multimodal storytelling-different combinations of writing, speech, images (still and moving), gestures, and spatial arrangements to convey narrative messages-serves as a common thread throughout the course.

EDU 341 - Integrated Curriculum in Early Childhood I - Literacy and Social Emotional Development

4 Hour(s)

This course focuses on facilitating the development of literacy and social emotional skills in young children based on their developmental and cultural characteristics. Students gain experiences in curriculum development, assessment and implementation in the areas of social studies, environmental education, literacy (reading, language arts, children's literature), and social emotional development.

FA

Prerequisite(s): EDU 249, and admission to the TEP

EDU 342 - Integrated Curriculum in Early Childhood II: Physical and Mathematical Knowledge

4 Hour(s)

This course focuses on facilitating the development of physical and mathematical knowledge in young children based on their developmental and cultural characteristics. Students gain experiences in curriculum development, assessment, and implementation in the areas of science, physical education, mathematics, and the creative arts. This course also examines children's interests and readiness as opportunities to employ emergent curriculum and incidental teaching.

FA

Prerequisite(s): EDU 341 and admission to the TEP

EDU 349 - Curriculum Development in Special Education/Special Education Methods

4 Hour(s)

This course builds the foundation for development of developmentally appropriate curriculum based upon child development,

learning theory, and research for all children birth through age eight, including those with developmental delays and disabilities. Students study effective teaching strategies, learn how to adapt curriculum for individual differences, study the organization of curriculum and instruction for special education students with a focus on literacy, socio-emotional, and social studies areas. This course also explores child find strategies, informed referral networks, evaluation team responsibilities, individualized family service plans, individualized education program processes, and pertinent state and federal laws, regulations, and policies.

FA

Prerequisite(s): EDU 261, EDU 341 and Admission to TEP

EDU 353 - Instruction and Assessment for Disciplinary Content

4 Hour(s)

This course is designed to examine discipline specific strategies for learning, assessment, and instruction for students in grades 4-12. The principles of Universal Design for Learning will be investigated and used as framework to understand planning and instruction. Students will learn to plan individual lessons as well as develop a complete unit within their discipline. The role of technology in teaching and learning will further be explored. A 50 hour field placement is connected to this course.

SP

Prerequisite(s): EDU 203, EDU 306 or permission from the Department Chair, and admission to TEP

EDU 355 - Special Methods in Teaching Elementary and Secondary Subjects

3 Hour(s)

Daytime clinical experiences in an early childhood/elementary and middle/secondary school required. Examination of models of learning and instruction in specific subject-matter areas, including 25 hours of work in an assigned school to directly apply methodology. Special emphasis on selection, use, and preparation of resources for the various areas. Attention given to assessment, technology, curriculum development and evaluation. Required for all Modern Language and Art Education majors.

SP

Prerequisite(s): EDU 203, EDU 304 , EDU 306 or permission from Chair for concurrent enrollment, and admission to the TEP

EDU 360 - Teaching and Learning with English Language Learners

2 Hour(s)

Through this course we will examine the intersection of culture and language and learn about the process of second language acquisition. We will develop an understanding of English Language Learners, discuss specific issues confronting bilingual students, and examine various program models for developing language proficiency. We will learn methods for integrating the teaching of language and academic content. We will implement a variety of strategies to adapt curricula, instruction and classroom settings to meet the needs of the English language learner. Upon completion of the course, students will have acquired the skills, knowledge base, and understanding of their responsibility for teaching ELLs.

FA, SP

Prerequisite(s): EDU 202

EDU 364 - Collaboration for Academic, Social and Career Development

4 Hour(s)

This course is designed to develop the knowledge, skills, and dispositions in future educators to effectively interact and collaborate with families, colleagues, and community agencies. Candidates will consider the perspectives of families of children with special needs and disabilities. Candidates will identify how to develop collaborative relationships with students and families. Students will gain a deeper understanding of agency systems, develop an awareness of the wide range of services provided by community agencies, and consider how families and schools can access these services. Students will understand contemporary

legislation, issues, and trends pertaining to the career and vocational development of students with special needs.

FA, SP

Prerequisite(s): EDU 261

EDU 372 - Instructional Design and Methodology for Students with Mild to Moderate Learning Disabilities

4 Hour(s)

This course is designed to provide a background in, as well as practical opportunities with, general methods and materials appropriate for working with students with disabilities at the elementary and middle level. Emphasis will be placed on the methods, materials, resources, requirements and responsibilities of teachers working with students who have mild to moderate academic disabilities including, but not limited to specific learning disabilities. Students will explore the development, implementation and monitoring of Individualized Education Plans (IEPs) related to instructional planning for students with disabilities within the general curriculum. The course also focuses on the role of the special educator in the school community.

FA

Prerequisite(s): EDU 261 and admission to TEP

Concurrent enrollment in EDU 312 and EDU 373 required.

EDU 373 - Instructional Design and Methodology for Students with Emotional/Behavioral Disabilities

4 Hour(s)

This methods course provides core theoretical and practical background necessary to evaluate, support and teach students with emotional and/or behavioral disabilities at the elementary and middle level. Emphasis will be placed on the methods, materials, resources, requirements and responsibilities of teachers working with students who have been identified with EBD. Candidates will explore the development, implementation and monitoring of Individualized Education Plans (IEPs) related to instructional planning for students with disabilities within the general curriculum and the role of the special educator in facilitating special education services with families and the school community.

FA

Prerequisite(s): EDU 261 and admission to TEP

Concurrent enrollment in EDU 312 and EDU 372 required.

EDU 391 - Special Topics in Education

1 - 4 Hour(s)

Application of theories and concepts in practicum experience focused on a specific area of interest.

FA, SP.

Restrictions: Instructor consent required.

EDU 395 - Design, Development and Delivery of Educational Programs

4 Hour(s)

This course is divided into three focus areas: 1) K-16 support programs, 2) Training and workforce development, 3) Non-profits. The course will provide an overview of a variety of educational programs outside of K-12 schools and the students will apply this knowledge to their professional goals. Students will analyze the design, development and delivery of programming in the three focus areas.

FA

Prerequisite(s): Junior standing

EDU 398 - Independent Study in Education

1 - 4 Hour(s)

Extensive study of an approved subject area, or problem in education, in which the student has a special interest or need. Approval of divisional dean and consent of instructor.

FA, SP, SU

EDU 400 - Capstone in Elementary Educational Studies

4 Hour(s)

A research seminar and practicum culmination of the academic and experiential work of the Educational Studies major. Students complete a project that explores the Education Program's core values in connection with gateways to educational employment outside of PK-12 schools. Individual practicum placements are made to capitalize on student interests. Placements are approximately 8 weeks long. Open only to Educational Studies majors.

SP

Prerequisite(s): Senior Standing

EDU 405 - Educational Studies Internship

2 Hour(s)

The purpose of this course is to provide participating students with an internship in the field tied to the Educational Studies major. Students will explore and analyze career paths in various traditional and nontraditional educational settings. With instructor support and approval, students seek out internship opportunities based on individual career goals. The internship requires a minimum of 60 hours throughout the semester (approximately 5-6 hours a week).

SP

Prerequisite(s): EDU 395

EDU 408 - edTPA development

1 Hour(s)

This course will prepare and support students to successfully complete their edTPA. The edTPA (Teacher Performance Assessment) is an assessment that documents and demonstrates each teacher candidate's ability to effectively teach his or her subject matter to all students. The edTPA is designed to serve as a holistic assessment that captures the complexity and depth of effective teaching. Materials assessed as part of the edTPA process include video clips of instruction, lesson plans, student work samples, analysis of student learning, and reflective commentaries. edTPA portfolios are sent to Pearson and reviewed by a national pool of scorers. This course will provide mini-lessons and workshops for each of the 15 rubric areas, instruction related to artifact analysis and selection, and individualized support.

EDU 409 - Secondary and K-12 Student Teaching

6 Hour(s)

The student teaching experience is an intensive, comprehensive requirement that provides students with a culminating opportunity to apply theory, methods and skills learned throughout their teacher preparation in a school setting, working under the direction and guidance of a master classroom teacher. A university supervisor is responsible for observing and evaluating the student teacher throughout the classroom teaching assignments. Placement is limited to schools that are within 30 miles of

Carroll. Placement within walking distance of Carroll cannot be guaranteed; therefore, students must have transportation. Student teaching is considered a full load; no other courses should be added. Because of state requirements several weeks will be added to the Carroll semester to coincide with school district semesters. Fall student teachers will begin in August and teach into January. Spring student teachers will begin in January and teach into June.

Successful completion of appropriate content knowledge assessment, admission to the student teaching program, TB test, and criminal history and background check.

FA, SP.

EDU 410 - Secondary and K-12 Student Teaching

6 Hour(s)

The student teaching experience is an intensive, comprehensive requirement that provides students with a culminating opportunity to apply theory, methods and skills learned throughout their teacher preparation in a school setting, working under the direction and guidance of a master classroom teacher. A university supervisor is responsible for observing and evaluating the student teacher throughout the classroom teaching assignments. Placement is limited to schools that are within 30 miles of Carroll. Placement within walking distance of Carroll cannot be guaranteed; therefore, students must have transportation. Student teaching is considered a full load; no other courses should be added. Because of state requirements several weeks will be added to the Carroll semester to coincide with school district semesters. Fall student teachers will begin in August and teach into January. Spring student teachers will begin in January and teach into June.

Successful completion of appropriate content knowledge assessment, admission to the student teaching program, TB test, and criminal history and background check.

FA, SP

EDU 419 - Early Childhood/Elementary Student Teaching

6 Hour(s)

The student teaching experience is an intensive, comprehensive requirement that provides students with a culminating opportunity to apply theory, methods and skills learned throughout their teacher preparation in a school setting, working under the direction and guidance of a master classroom teacher. A university supervisor is responsible for observing and evaluating the student teacher throughout the classroom teaching assignments. Placement is limited to schools that are within 30 miles of Carroll. Placement within walking distance of Carroll cannot be guaranteed; therefore, students must have transportation. Student teaching is considered a full load; no other courses should be added. Because of state requirements several weeks will be added to the Carroll semester to coincide with school district semesters. Fall student teachers will begin in August and teach into January. Spring student teachers will begin in January and teach into June.

Successful completion of appropriate content knowledge assessment, admission to the student teaching program, TB test, and criminal history and background check.

FA, SP

EDU 420 - Early Childhood/Elementary Student Teaching

6 Hour(s)

The student teaching experience is an intensive, comprehensive requirement that provides students with a culminating opportunity to apply theory, methods and skills learned throughout their teacher preparation in a school setting, working under the direction and guidance of a master classroom teacher. A university supervisor is responsible for observing and evaluating the student teacher throughout the classroom teaching assignments. Placement is limited to schools that are within 30 miles of Carroll. Placement within walking distance of Carroll cannot be guaranteed; therefore, students must have transportation. Student teaching is considered a full load; no other courses should be added. Because of state requirements several weeks will be added to the Carroll semester to coincide with school district semesters. Fall student teachers will begin in August and teach into January. Spring student teachers will begin in January and teach into June.

Successful completion of appropriate content knowledge assessment, admission to the student teaching program, TB test, and criminal history and background check.

FA, SP

EDU 422 - Special Student Teaching Practicum

1 - 5 Hour(s)

A practicum for the licensed student who is extending teaching certification beyond his/her present license. University supervised student teaching at the level(s) and/or subject for which additional certification is desired. A portfolio and demonstrated proficiency in the Wisconsin Teacher Standards is also required.

FA, SP

Note(s): Additional Notes: Successful completion of appropriate PRAXIS II Content Knowledge Exam(s), and/or ACTFL Language Test, and/or Foundations of Reading Test required prior to endorsement for licensure.

EDU 423 - Special Education Student Teaching

6 Hour(s)

The student teaching experience is an intensive, comprehensive requirement that provides students with a culminating opportunity to apply theory, methods and skills learned throughout their teacher preparation in a school setting, working under the direction and guidance of a master classroom teacher. A university supervisor is responsible for observing and evaluating the student teacher throughout the classroom teaching assignments. Placement is limited to schools that are within 30 miles of Carroll. Placement within walking distance of Carroll cannot be guaranteed; therefore, students must have transportation. Student teaching is considered a full load; no other courses should be added. Because of state requirements several weeks will be added to the Carroll semester to coincide with school district semesters. Fall student teachers will begin in August and teach into January. Spring student teachers will begin in January and teach into June.

Successful completion of appropriate content knowledge assessment, admission to the student teaching program, TB test, and criminal history and background check.

FA, SP

English

ENG 115 - Video Game Creation and Design

4 Hour(s)

Students will learn how to write and design 2-D video games using game creation tools. Students will learn principles of idea generation, design documents, rule and level design, game systems and balance, and coding concepts. Students must have their own laptop computer (Windows, Mac, or Linux). No prior coding/programming experience is necessary.

FA

ENG 120 - Introduction to Professional Writing

4 Hour(s)

This course examines the field of professional writing and explores writing conventions (format, style, research documentation) in various organizational contexts. Students in the course will both produce and analyze documents tailored to real-world situations.

SP

ENG 140 - Introductory Language Skills for Liberal Arts

4 Hour(s)

An intensive review of the basic skills required by a Liberal Arts education - reading, writing and critical thinking. May not be counted toward an English major or minor.

FA, SU

Restrictions: (Enrollment by assignment only.)

ENG 165 - Cultural Explorations of Race, Gender, and Class

4 Hour(s)

General Education H1 and CCD

This course explores how different cultures write meaning onto bodies, the mechanisms used to write those meanings, and the impact those meanings have on the bodies so inscribed. In general, this course looks at how culture uses the body as a site for enacting cultural practice and understanding.

FA, even years

ENG 170 - Writing Seminar

4 Hour(s)

Required for all first year students. Through critical reading - and with special attention to language, audience, purpose and structures - students develop effective approaches to writing. May not be counted toward an English major or minor.

FA, SP, SU

ENG 170H - Writing Seminar

4 Hour(s)

Required for all first year honors program students. Students develop effective approaches to writing to an advanced degree. May not be counted toward an English major or minor.

SP

ENG 199 - Reading and Writing in the Sciences

4 Hour(s)

In this class, students will be introduced to a wide range of genres crucial for work in the health and natural sciences, which may include lab reports, literature reviews, abstracts, interview or observational notes, detailed instructions, business letters, and grant proposals. Assignments will help students sharpen their writing skills and develop their professional identities.

SP

ENG 205 - Interactive Fiction Writing: Stories and Games for Online Environments

4 Hour(s)

Students will explore interactive and hypertext fiction, both historical and contemporary. Students will then create their own interactive stories and games to read/play with free, easy-to-use software and publish them online. Students will learn the basics of good writing, coding concepts, and web publishing. No prior coding/programming experience is necessary

FA, even.

ENG 206 - Fiction Writing

4 Hour(s)

General Education F1

By studying master works of short fiction selected from contemporary authors and by participating in writing workshops, students will work to develop and refine their skills of writing fiction.

SP

ENG 207 - Poetry Writing

4 Hour(s)

General Education F1

In this workshop, students will learn the conventions of poetry writing by studying master works of poetry and writing their own poems.

FA

ENG 210 - African American Literature

4 Hour(s)

General Education H1 and CCD

Students will read and respond to a variety of African-American literature - novels, poems, plays, autobiographies, short stories, and commentaries. The goal is that students will be able to write thoughtfully about the ethics and aesthetics of these works, and will more fully appreciate and understand the relationship between literature, history, and cultural values.

FA

Prerequisite(s): ENG 170 is recommended prior to enrollment

ENG 214 - Global Film Theory and Criticism

4 Hour(s)

General Education H1 and CCD

This course will help develop a critical vocabulary for analyzing and writing about film in a global context. This course will supplement film viewings with reading, discussion, and writing activities to improve student's ability to craft arguments based in evidence.

SP, odd years

ENG 215 - Video Game Studies

4 Hour(s)

General Education H1

Students will analyze the formal, philosophical, and cultural aspects of video games. Questions considered include: What makes a game? Which is more important for a game: its rules or its story? How do games impact our culture, and vice-versa? Students will play numerous examples of freely available games for analysis and discussion.

SP even years

ENG 219 - Introduction to Linguistics

4 Hour(s)

Students develop their own view on language policy, both in the classroom and in public arenas. Beginning with language production, students will piece together the fascinating story of human language development. In papers, discussions, and presentations, students will investigate social, psychological, and historical implications of language study.

ENG 226 - Africa: Literature and Culture of Its Many Nations

4 Hour(s)

This course is designed to develop an awareness and understanding of the varied voices contained in contemporary African literature. In addition to examining these works as artistic productions, the course situates the narratives within the historical and political circumstances that give rise to them.

FA

Prerequisite(s): ENG 170 is recommended prior to enrollment

ENG 230 - Grant Writing

4 Hour(s)

Students will learn about the process of obtaining grant funding for nonprofit organizations, then participate in that process. Students will first practice each stage of grant writing. They will then further develop their skills by writing complete grants in real-life scenarios.

SP, odd years.

Prerequisite(s): none

ENG 240 - British Literature I - Medieval to 1700

4 Hour(s)

Course content focuses on major movements, authors, and texts in English Literature, beginning with the works of early Anglo-Saxon writers and continuing through the 17th century.

SP, odd years

ENG 241 - British Literature II - 1700 to Contemporary

4 Hour(s)

Course content focuses on major movements, authors, and texts in English Literature, beginning with the works of the late 18th century and continuing through the present day.

SP, even years

ENG 242 - American Literature - 1620 to Contemporary

4 Hour(s)

General Education H2 and CCD

This course looks at the ways America's original narrative, which was initially dominated by an exclusively Puritan perspective, has evolved, and continues to evolve, in response to historical events and an every changing cast of characters.

SP

ENG 255 - Postcolonial Literature and Theory

4 Hour(s)

General Education H1 and CCD

Literature of indigenous world cultures (non-Western-Eurocentric literature), to consider relationships between place and cultural identity, constructions of cultural difference, relationships between cultures, and operations of domination and resistance. The course also looks at the roles writers play in establishing or reestablishing cultural identity and addresses issues of ethics and morality in crossing cultures.

FA, SP 255H: FA, odd years

ENG 255H - Postcolonial Literature and Theory

4 Hour(s)

General Education H1 and CCD

Literature of indigenous world cultures (non-Western-Eurocentric literature), to consider relationships between place and cultural identity, constructions of cultural difference, relationships between cultures, and operations of domination and resistance. The course also looks at the roles writers play in establishing or reestablishing cultural identity and addresses issues of ethics and morality in crossing cultures.

FA, SP, SU 255H: FA, odd years

Restrictions: Acceptance to the Honors Program required.

ENG 260 - Professional Writing in the Public Sphere

4 Hour(s)

Students will examine "public writing" in a wide variety of forms (blogs, journalism, academic writing) as a way of interrogating what we mean by "good writing" and "public communication." Students will explore the idea of a "democratic public sphere" as it emerges historically and appears in the design and use of networked information infrastructures. Students will also examine the ethics of engagement and representation in open-access exchanges, and the conventions of writing deemed necessary for conversing with and about a "general public".

SP even years

ENG 262 - Introduction to Gender Studies

4 Hour(s)

General Education H1 and CCD

The purpose of this course is to acquaint you with the questions, critical conversations and controversies that dominate contemporary gender studies. Throughout the course, we will consider how each "wave" of feminism reinvented (and at times reinforced) prevalent cultural notions of gender, politics, and the body.

SP Even Years

Prerequisite(s): ENG 170 is recommended prior to enrollment

ENG 264 - American Indian Literature and Spirituality

4 Hour(s)

General Education H1 and CCD

An introduction to the study of American Indian literature and cultures, representing select geographical locations, through literature, film, and primary sources.* Students will examine the importance of storytelling in reflecting, maintaining, and shaping tribal cultures, identities, histories, and traditions. *Course texts will represent a selection of geographically diverse American Indian cultures that will always include a Great Lakes Indian tribe to promote understanding of local cultural diversity.

SP

ENG 288 - Images that Speak: Visual Culture before "talking films"

4 Hour(s)

General Education H1

This course is designed to introduce you to the multiple texts that inundated the British and American visual landscape before the age of "talking films". As we proceed through the class, we will ask how these technologically and aesthetically innovative forms influenced Anglo-American subjectivity and identity.

FA, odd years

ENG 298 - Independent Study in English

1 - 4 Hour(s)

Junior standing, approval of the divisional dean and consent of the instructor.

ENG 300 - Great Authors I: Medieval to 1700

4 Hour(s)

General Education H2 and CCD

Intensive study of a body of work by an author deemed 'great' by scholars and critics. This study will include relevant critical and biographical readings and discussion of what, ultimately, makes the author 'great.' ENG 170 is recommended prior to enrollment.

Junior standing or consent of the instructor.

FA, even years

ENG 301 - Chaucer

4 Hour(s)

Intensive reading of the works of Geoffrey Chaucer, with special focus on the ways in which he both operated within and transcended the artistic conventions of his period.

Prerequisite(s): Junior standing or consent of the instructor

ENG 302 - Great Authors II: 1700 to Contemporary

4 Hour(s)

Intensive study of a body of work by one or two authors from different cultural traditions who have been deemed 'great' by scholars and critics. The course will cover authors writing after 1800. This study will include relevant critical and biographical readings, supplemental surveys of the authors' culture, and discussion of what, ultimately, makes the author 'great.' ENG 170 is recommended prior to enrollment.

SP even years

Prerequisite(s): Junior standing or consent of the instructor

ENG 303 - Milton and Moral Choice - His Age and Ours

4 Hour(s)

General Education H2

Study of John Milton's poetry and prose, supplemented by other seventeenth century writers, concentrating on issues of the nature of Good and Evil, Moral Choice, Free Will, Guilt and Innocence, Gender, Desire, War, and Censorship. Discussion focuses on how these issues represent some of the most pressing anxieties of Milton's time and our own.

FA, even years

Prerequisite(s): Junior standing or consent of the instructor

ENG 304 - Shakespeare: From Stage to Screen

4 Hour(s)

General Education H2

Intensive study of representative histories, comedies, tragedies and late plays, with a focus on understanding their historical contexts as well as how the plays have been adapted in recent films.

SP, even years

Prerequisite(s): Junior standing or consent of the instructor

ENG 305 - Advanced Exposition and the Rhetorical Tradition

4 Hour(s)

General Education H2

Rhetorical Tradition Students will read and analyze rhetorical texts ranging from Classical authors like Aristotle, to Modern and Postmodern theorists like Burke and Foucault. Theories learned from these texts will be used to examine historically important American speeches.

FA, even years

ENG 309 - Romantic and Victorian Literature

4 Hour(s)

Students will read major writers of the nineteenth century their historical context with emphasis on major poetry and prose, including the novel, in relation to literary and cultural history.

SP, odd years

Prerequisite(s): Junior standing or consent of the instructor

ENG 312 - Modernism

4 Hour(s)

General Education H2

Students read major works of the modern and postmodern periods in relation to prevailing cultural constructions of self, art, and the nature of reality. Students will also consider the causes and consequences of the widening gulf between highbrow literature and popular fiction.

FA, odd years

Prerequisite(s): Junior standing or consent of the instructor

ENG 323 - Early Modern British Literature

4 Hour(s)

Verse, prose and drama of the Early Modern Period, including works by Behn, Donne, Herbert, Jonson, Marlowe, Marvell, Milton, Spenser, Sidney and others. The course studies sixteenth and seventeenth century literary traditions as they reflect and construct culture, as well as the ways the Early Modern Period anticipates and resists issues such as power, gender, love and faith in our time.

SP, even years

Prerequisite(s): Junior standing or consent of the instructor

ENG 326 - Age of Exuberance-Restoration and 18th Century British Literature

4 Hour(s)

A study of the artistic and moral values of the important writers of literature from 1660-1800. Themes of the course include: the evolving attitudes toward the emotions, reason, and the imagination; the ideas of order and control; the art and effect of comedy; the impact of the new science and the emerging middle class; the changing definitions of man and nature.

SP, odd years

Prerequisite(s): Junior standing or consent of the instructor

ENG 333 - Advanced Creative Writing

4 Hour(s)

General Education F2

Students will have the opportunity for advanced study in the genre of their choice: fiction or poetry. Students in this workshop will build upon the foundational skills they studied in ENG 206 or ENG 207. Readings will focus on understanding and analyzing the conventions of the student's chosen genre. Students will do extensive writing in their genres, and student work will be discussed and analyzed in a writing workshop format.

FA, odd years

Prerequisite(s): ENG 206 or ENG 207

ENG 350 - Literary Magazine Publishing

4 Hour(s)

In this practicum, students will edit, produce, write for, and market Carroll's professional literary magazine.

SP

Prerequisite(s): two 200-level or above Humanities or Social Science courses (ART, COM, EDU, ENG, FRE, GRC, HIS, MUS, PPE, POL, REL, SOC, SPA, THE) or consent of the instructor

ENG 380 - Internship in English

2 - 4 Hour(s)

Work experience under professional supervision with opportunities to observe and question. Written report required. Only four credits may be applied toward completion of the major. Recommended as 10th course in the major.

Prerequisite(s): Consent of the instructor

ENG 391 - Special Topics in English and Writing

4 Hour(s)

Study of a selected topic in English that is not covered in regular course offerings. Generally takes a lecture and discussion format. The topic will be announced prior to registration.

Prerequisite(s): Junior level standing or above or consent of instructor

ENG 398 - Independent Study in English

1 - 4 Hour(s)

Prerequisite(s): Junior standing, approval of the divisional dean and consent of the instructor

ENG 415 - Video Game Projects

2 Hour(s)

Students will demonstrate mastery of analyzing and creating video games in a practicum-style setting. Students will write a thorough video game analysis and create a new, polished video game.

SP

Prerequisite(s): Video Game Studies minors only ENG 115 and ENG 215 must be completed Students must have also completed or be concurrently enrolled in COM 370 and the courses in the student's chosen track of specialization within the minor ENG 115, ENG 215

ENG 480 - Internship in English

4 Hour(s)

Work experience under professional supervision with opportunities to observe and question. Written report required. Only four credits may be applied toward completion of the major. Recommended as 10th course in the major.

Prerequisite(s): Consent of the instructor

ENG 497 - Guided Senior Thesis

2 Hour(s)

The thesis will be completed under the guidance of a selected faculty member. Students will create a unified thesis of revised and

polished work that will be used for final assessment.

SP

Prerequisite(s): ENG 496 and consent of the instructor

ENG 499 - English Major Capstone-Advanced Literature Seminar

4 Hour(s)

In the capstone, students are expected to demonstrate mastery of the five English Program Learning outcomes. Course will be conducted as an advanced literature seminar and students will read primary as well as secondary materials in order to understand and insert themselves into a contemporary critical discussion. At the end of the seminar, students will submit a senior thesis project which demonstrates scholarly research, critical engagement and literary analysis.

FA

Prerequisite(s): Senior standing as an English major

Earth Science

ENV 105 - Earth Science

4 Hour(s)

General Education N1

Introduction to the basic concepts in earth science, including the description, analysis, and interpretation of the major components of the earth's natural environment. The first part of the course introduces geologic elements of the earth system including earth materials, internal processes, and external processes. The second part of the course focuses on the structure and processes of the atmosphere, along with resulting weather patterns.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

FA, SU of even years

ENV 105L - Earth Science Laboratory

0 Hour(s)

Laboratory component for ENV 105.

ENV 120 - Conservation and Environmental Improvement

4 Hour(s)

General Education N1

A study of global natural resources and methods used in their conservation. The course includes the basic concepts of ecological biology including interactions between the living and the non-living elements of the environment, concepts of energy transformation in physical and biological systems, the nature of the Earth's ecosystems, and the implications of continued growth of the human population. Emphasis is placed on human environmental concerns and methods to be used to study and alleviate human environmental problems.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

FA, SP, SU of odd years

ENV 120H - Conservation and Environmental Improvement

4 Hour(s)

General Education N1

For students in the honors program. A study of global natural resources and methods used in their conservation. The course includes the basic concepts of ecological biology including interactions between the living and the non-living elements of the environment, concepts of energy transformation in physical and biological systems, the nature of the Earth's ecosystems, and the implications of continued growth of the human population. Emphasis is placed on human environmental concerns and methods to be used to study and alleviate human environmental problems.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

SP of even years

ENV 120HL - Conservation and Environmental Improvement Laboratory

0 Hour(s)

Laboratory component for ENV 120H.

ENV 120L - Conservation and Environmental Improvement Laboratory

0 Hour(s)

Laboratory component for ENV 120.

ENV 150 - Climate Science

4 Hour(s)

General Education N1

Changing climate is at the root of many environmental, political, and social issues because climate fundamentally impacts both natural ecosystems and human society. This course is an introduction to the scientific basis of understanding climate and climate change. Through lecture and lab activities, students will learn the structure and governing principles of the climate system, the interactions of various components of the climate system, the techniques used by scientists to monitor and predict climate, and how human and natural systems influence and are influenced by climate.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

SP

ENV 150L - Climate Science Laboratory

0 Hour(s)

Laboratory component for ENV 150.

ENV 201 - Problem Solving in Environmental Systems

4 Hour(s)

This course takes an inquiry-based approach to address current and future environmental issues (water, energy, biodiversity loss, climate change, and agriculture/aquaculture) through a project-based problem solving approach. Environmental issues will be explored through their scientific as well as sociological, economic, and political contexts. Students will be expected to examine

environmental issues through compiling information from a variety of sources - textbook, internet, popular literature, and peer-reviewed publications. The course is a pre-requisite for some upper-level biology courses and will cover critical thinking skills required in upper-level Biology and Environmental Science courses.

SP of even years

Prerequisite(s): BIO 120 or consent of instructor

ENV 222 - Environmental Sustainability

4 Hour(s)

General Education N2

Environmental sustainability is a very broad area of study that is generally focused on prudent use of the earth's resources in the production of goods and services that humans need and want in such a way as to ensure the well-being of future generations and the earth. This lecture and lab course is designed to give students the conceptual knowledge and practical skills to assess the sustainability of environmental system in light of human resource consumption practices.

SP

Prerequisite(s): ENV 105 or ENV 120

ENV 222L - Environmental Sustainability Laboratory

0 Hour(s)

Laboratory component for ENV 222.

ENV 252 - Contemporary Issues in Environmental Science

2 Hour(s)

This course highlights various contemporary issues relating to the global environment with a focus on the distributional patterns of environmental problems such as natural resource depletion, food production, overpopulation, energy use, water pollution, and global climate change. This course may be used with a prior university biology laboratory course to satisfy the environmental science requirement for teachers.

WN, SU

ENV 277 - Natural Resource Management

4 Hour(s)

The course provides an introduction to the biological and social aspects of renewable and nonrenewable natural resource management. In addition to the management of fisheries and wildlife populations and their habitats, emphasis will be placed on forestry, vegetative communities, and non-renewable (fossil fuel) natural resources. Students will read and discuss the biological, physical, and social aspects of natural resource management.

SP of odd years

Prerequisite(s): BIO 120

ENV 290 - Workshop-Environmental Science

2 - 4 Hour(s)

Topical workshops, field studies, or short courses are established in various areas of interest as recognized/needed by the

program. For example, under this listing, the program offers a 'Cultural and Environmental Geography of Alaska' field study during May term (odd years), which is also offered for NCEP credit.

ENV 292 - Environmental Ethics

4 Hour(s)

General Education P1

This course addresses historic philosophical and religious perspectives concerning the natural environment, including contemporary ethical responses to such global concerns as resource stewardship and management, technological change and impact, ecological diversity and sustainability, environmental politics and economics, energy use, population growth, and over-consumption. An emphasis will be placed on global resource challenges and social issues related to resource utilization.

SP

ENV 325 - Soils and Hydrology

4 Hour(s)

This course addresses various technical aspects of global soil and water resources, how we utilize and impact the quality and quantity of these vital resources, and how we manage and conserve them for future generations. Topics include soil classification, soil physics, soil chemistry, soil fertility, water chemistry, hydrology, and sediment and contaminant transport.

Four hours of lecture/discussion and one three-hour laboratory.

(Required course fee)

FA of even years

Prerequisite(s): ENV 105, CHE 109, CHE 110, or consent of instructor

ENV 367 - Geographic Information Systems

4 Hour(s)

General Education N2

Geographic information systems (GIS) are a specialized computer program used widely at all levels of the scientific, business, government, and educational communities to examine data that are distributed on the Earth's surface. Through lecture, students will learn the theory behind and the terminology associated with GIS and spatial data. Through lab, students will learn techniques to create, collect, manage, analyze, and present data to address environmental and other issues through hands-on use of the industry standard ESRI ArcGIS software. Students will also create and present their own GIS based research project.

(Required course fee)

SP

Prerequisite(s): ENV 105 or ENG 120

ENV 370 - Earth Surface Processes

4 Hour(s)

The processes, landforms, and sediments found on the Earth's surface play a fundamental role in resource management, reclamation, and many other environmental issues. This course explores the relationships between surface landforms and the underlying geologic structures; processes of wind, water, ice, and gravity that shape the Earth's surface; and the history of environmental and geologic change recorded in surface environments. Coursework focuses on qualitative and quantitative description of processes, landforms, and sediments through fieldwork and interpretation of aerial photographs, remote sensing images, and topographic and geologic maps.

Four hours of lecture/discussion and one three-hour laboratory.
(Required course fee)
FA of odd years
Prerequisite(s): ENV 105

ENV 370L - Earth Surface Processes Laboratory

0 Hour(s)
Laboratory component for ENV 370.

ENV 380 - Internship in Environmental Science

2 - 4 Hour(s)
This course is a study of a selected topic not covered in regular course offerings. Lecture and discussion. The topic will be announced prior to registration

A course fee may apply.
Offered as needed.
Prerequisite(s): Junior or senior standing and consent of instructor.

ENV 391 - Topics in Environmental Science

1 - 4 Hour(s)
This course is a study of a selected topic not covered in regular course offerings. The topic will be announced prior to registration. Lecture and discussion.

A course fee may apply.
Offered as needed

ENV 396 - Research-Environmental Science

2 - 4 Hour(s)
Prerequisite(s): Junior or senior standing and consent of major adviser

ENV 398 - Independent Study-Environmental Science

1 - 4 Hour(s)
Prerequisite(s): Junior or senior standing, approval of the divisional dean and consent of the instructor

ENV 455 - Watershed Management

4 Hour(s)
This course examines the interaction of abiotic, biotic, and social components in the management of a drainage basin's terrestrial and aquatic resources. Through the examination of global watershed management literature and related case studies, students will actively engage in the development of a watershed management plan. Class projects will focus on selected Wisconsin, upper Midwest, and Great Lakes watersheds.

FA
Prerequisite(s): ENV 277 or BIO 225, plus junior or senior standing ENV 367 recommended

ENV 480 - Work-Oriented Internship

2 - 4 Hour(s)

Prerequisite(s): Junior or senior standing and consent of major adviser

ENV 491 - Topics in Environmental Science

1 - 4 Hour(s)

ENV 496 - Research in Environmental Science

2 - 4 Hour(s)

(Course fee required)

Prerequisite(s): Junior or senior standing and consent of major adviser

ENV 498 - Independent Study in Envir Science

1 - 4 Hour(s)

Prerequisite(s): Junior or senior standing, approval of the divisional dean and consent of the instructor

Exercise Science

ESC 100 - Introduction to Exercise Science

2 Hour(s)

An introductory level class for exercise science majors in which the student will understand the terminology, primary concepts and trends, and current scientific research within the major subdisciplines of exercise science. Students will describe and demonstrate an understanding of the role and responsibilities of exercise science professionals to include career opportunities and paths related to pursuing a career in exercise science or related disciplines.

FA, SP

ESC 215 - Group Exercise Workshop

2 Hour(s)

This course is designed to develop proficiency in teaching skills specific to group exercise instruction for apparently healthy populations. The course focus is on the standards of basic exercise guidelines, choreography and design, instructional technique and cueing, exercise supervision, and overall presentation and performance. Supporting topics include kinesiology, nutrition, and legal implications. These standards are aligned with those of the American College of Sports Medicine.

(Required course fee)

ESC 280 - Exercise Physiology

4 Hour(s)

Students explore the functions and the underlying scientific mechanisms of the body's physiological systems. The course will examine the acute response and chronic adaptations to cardiorespiratory and muscular conditioning. The students will also explore proper exercise prescription to enhance health and physical performance.

(Required course fee)

FA, SP

Prerequisite(s): ANP 130 or equivalent

Corequisite: ANP 140

ESC 280L - Exercise Physiology Lab

0 Hour(s)

Laboratory component for ESC 280.

ESC 300 - Nutrition and Health

4 Hour(s)

This course investigates the functions of the six classes of nutrients: carbohydrates, lipids, proteins, vitamins, minerals, and water. The study of these nutrients will be extended to human physiological requirements, energy balance, food sources, labeling and safety, and deficiency symptoms. Students will examine healthy nutrition through the life cycle involving selected cultural groups, diet and physical activity as well as designated diseases. Students will be expected to apply their nutrition knowledge to their own lives along with a client/patient's life to assess dietary adequacy and compatibility with optimal health.

FA, SP

Prerequisite(s): ANP 130 and ANP 140

ESC 304 - Nutrition and Fitness for Special Populations

2 Hour(s)

The objective of this course is to apply the principles of integrative nutrition to improve the health and functionality of special populations, including athletes and individuals suffering from chronic illnesses.

FA

Prerequisite(s): ANP 140 or consent of the instructor

ESC 306 - Nutrition Seminar

2 Hour(s)

This course offers an in-depth application of diet manipulations to optimize exercise metabolism and improve performance. This course will also prepare students for the International Society of Sports Nutrition (ISSN) certification exam.

SU

Prerequisite(s): ENG 300 or consent of the instructor

ESC 320 - Exercise Testing and Prescription

4 Hour(s)

This course provides students with the knowledge, skills, and abilities (KSA's) to appropriately select, perform and interpret preparticipation screenings, pre-exercise evaluations, commonly used field and laboratory exercise tests, basics of exercise prescription, and metabolic assessment for apparently healthy populations across the lifespan.

(Required course fee)

FA, SP

Prerequisite(s): ESC 280 or equivalent

ESC 320L - Exercise Testing & Prescription Lab

0 Hour(s)

Laboratory component for ESC320.

ESC 322 - Kinesiology

4 Hour(s)

This course explores the underlying mechanisms of human movement (anatomical and mechanical). Biomechanical terminology and principles are introduced. Students examine the laws of nature which govern movement, and how they can be applied to human movement in a manner designed to enhance performance. The course also explores the roles and functions of the nervous and musculoskeletal systems in human movement and performance and the manner in which they work individually and collectively during movement.

Four hours of lecture/discussion and two hours of laboratory per week.

(Required course fee)

FA, SP

Prerequisite(s): ANP 130 and ANP 140 or consent of instructor

ESC 322L - Kinesiology Lab

0 Hour(s)

Laboratory component for ESC 322.

ESC 390 - Strength & Conditioning Theory Across the Lifespan

4 Hour(s)

This course is intended to prepare future professionals to apply scientifically sound principles to strength and conditioning programs. Students will study strength, speed, cardiovascular, and flexibility training through the use of concepts learned in physiology, anatomy, kinesiology, and psychology. Students will learn appropriate exercise program design, safe exercise technique, and the ways to assess physical improvement in clients.

(Required course fee)

FA, SP

Prerequisite(s): ESC 280 and ESC 320 or equivalent

ESC 390L - Strength and Conditioning Theory Across the Lifespan Lab

0 Hour(s)

Laboratory component for ESC 390.

ESC 391 - Strength & Conditioning for Sport

2 Hour(s)

This course presents advanced strength training and conditioning theory and practice. Designed primarily for students that may be involved in strength and conditioning for athletes at any age, the course explores periodization models and their utilization, mastery and analysis of explosive lifts, plyometric programming, speed and agility drills and programming, facility design, and ergogenic aids.

(Required course fee)

Prerequisite(s): HSC 303, HSC 322, HSC 110 or permission from instructor

ESC 420 - Exercise Prescription for Special Populations

4 Hour(s)

This is an advanced course in clinical exercise testing and prescription that will focus on the applicable assessment techniques, treatment procedures, exercise prescription, and patient education for individuals with cardiovascular, pulmonary, metabolic, musculoskeletal and neuromuscular diseases. This course will also examine common special needs such as cognitive, psychological and sensory disorders. The course is designed to provide the student with a basic understanding of the pathophysiology and exercise responses in these special populations.

(Required course fee)

FA, SP

Prerequisite(s): ESC 320 or equivalent

ESC 440 - Lifetime Weight Management and Behavior Change

4 Hour(s)

This course focuses on the various components of and strategies for successful weight management. The role of diet, physical activity, and behavior modification, as well as the physiological, sociological and psychological aspects of weight management will be discussed. Students will complete lifestyle, physical activity and nutritional analyses, and design weight management programs to include tailored physical activity plans. Students will also participate in client-centered physical activity and nutritional counseling.

Prerequisite(s): PSY 101, ESC 300, and ESC 320 or equivalent

ESC 460 - Exercise Science Capstone

4 Hour(s)

This course provides students with an opportunity to observe and apply skills learned within the clinical or strength and conditioning tracks in the exercise science program under the direction and supervision of Exercise Science faculty. The course is also designed to prepare students for appropriate professional organization certification exams and for post-graduate study in exercise science or other health related disciplines such as medicine, physical therapy, cardiac rehab, occupational therapy and physician assistant.

(Required course fee)

FA

ESC 480 - Internship

12 Hour(s)

This course is an opportunity for students to apply theories and concepts to actual work experiences under the direction of the capstone advisor and the site supervisor. The purpose of the internship is to provide opportunities to improve skills, reach goals, and adapt to the world of work.

FA, SP, SU

Prerequisite(s): Senior standing, major requirements completed, current Professional Rescuer CPR and First Aid certification, and approval of the instructor

French

FRE 101 - Elementary French I

4 Hour(s)

A beginning course designed to introduce the student to the basic skills of understanding, speaking, reading and writing the French language. Introduction to French cultures, politics, history, and literature through texts in English or in English translation from French. Conducted primarily in French.

FA

FRE 102 - Elementary French II

4 Hour(s)

A beginning course designed to introduce the student to the basic skills of understanding, speaking, reading and writing the French language. Introduction to French cultures, politics, history, and literature through texts in English or in English translation from French. Conducted primarily in French.

SP

FRE 201 - Intermediate French I

4 Hour(s)

A beginning course designed to introduce the student to the basic skills of understanding, speaking, reading and writing the French language. Introduction to French cultures, politics, history, and literature through texts in English or in English translation from French. Conducted in French.

FA

Prerequisite(s): FRE 102 for FRE 201, FRE 201 for FRE 202 or equivalent

FRE 202 - Intermediate French II

4 Hour(s)

A beginning course designed to introduce the student to the basic skills of understanding, speaking, reading and writing the French language. Introduction to French cultures, politics, history, and literature through texts in English or in English translation from French. Conducted in French.

SP

Prerequisite(s): FRE 102 for FRE 201, FRE 201 for FRE 202 or equivalent

FRE 298 - Independent Studies in French

2 - 4 Hour(s)

Prerequisite(s): Junior standing and written consent of instructor required for registration. Written proposals of projects must have the prior approval of the divisional dean and consent of the instructor prior to registration.

FRE 301 - Conversation & Composition

4 Hour(s)

General Education H1 and CCD

Emphasis on active use of the language, and functional grammar review, including interaction in social and general conversations, vocabulary building, syntactic structures and sentence patterns. Constant focus on pronunciation and diction, with introduction to basic phonetic and linguistic principles. Reading of literary and cultural texts. Discussions of contemporary topics. Conducted in French.

Prerequisite(s): FRE 202 or equivalent

FRE 307 - French Civilization

4 Hour(s)

General Education H2

Acquaints students with the major events of French history, including the various artistic, cultural and social elements which have contributed to making France what it is today, in order to better understand the French, their customs and their lifestyle. Oral and written reports. Conducted in French.

Prerequisite(s): FRE 301 or consent of instructor

FRE 318 - Topics in French and Francophone Literatures

4 Hour(s)

This course focuses on the study of French literature and theater. Students will discuss, analyze and develop their own critical approach and ideas around the texts in class and through oral, written and research reports and papers. Topics are drawn from the literature of French-speaking Europe, Africa, and the Caribbean. Conducted in French.

May be repeated with change of topic.

Prerequisite(s): FRE 301 or consent of the instructor

FRE 398 - Independent Studies in French

2 - 4 Hour(s)

Prerequisite(s): Junior standing and written consent of instructor required for registration. Written proposals of projects must have the prior approval of the divisional dean and consent of the instructor prior to registration.

Engineering

GEN 100 - Engineering Seminar I

1 Hour(s)

New engineering students will be given opportunities to develop and improve problem solving, computer literacy and study skills to maximize their chances for success in their university careers and prepare them for subsequent engineering courses. Topics include: making the transition from high school to university; time management; exploration of the engineering disciplines, learning styles, introduction to computer skills including spreadsheets, word processing and presentation software; engineering ethics; introduction to engineering methods.

FA

GEN 101 - Engineering Seminar II

1 Hour(s)

New engineering students are given opportunities to explore the engineering programs through interdisciplinary projects. Emphasis will be placed on written and oral communication skills, data collection and analysis, computer application skills and group work.

(Required course fee)

SP

Prerequisite(s): GEN 100

GEN 105 - Engineering Graphics

4 Hour(s)

Problems relative to points, lines and planes in space; Cartesian coordinates; projection-plane theory; orthographic pictorials; dimensioning; auxiliary views; sections; extensive use of computer-aided design (AutoCAD and solid modeling) including 2D and 3D drawing, editing and enhancing; emphasis on development of the ability to communicate graphically; special emphasis on engineering and computer graphics applications.

FA

GEN 210 - Statics and Dynamics

4 Hour(s)

Principles of statics and dynamics with applications in engineering. Topics include force/movement vectors, resultants, distributed loads, internal forces in beams, properties of areas, moments of inertia and the laws of friction, kinematics and kinetics of particles, rigid bodies in translation, rotation and general plane motion, Newton's laws, work-energy methods, linear and angular momentum.

FA, even years

Prerequisite(s): PHY 203, and MAT 207 or concurrent registration in MAT 207

GEN 310 - Strengths of Materials

4 Hour(s)

Simple stress and strain; design and investigation of joints, beams, torsion members and columns; evaluation of shear, moment, slope and deflection of beams and combined stresses.

SP, odd years

Prerequisite(s): GEN 210

GEN 320 - Advanced Circuits and Electronics

2 Hour(s)

Expanding on topics covered in PHY 204 and PHY 301, analog circuits are treated in greater detail, including steady-state AC circuits, transfer functions, transient current dynamics, circuit analysis, phasors, follower circuits, and operational and transistor amplifiers. Additional analog topics include diodes, transistors (bipolar junction and field effect), elementary amplifier circuits, transistor limitations, comparators, and oscillators. Lectures and laboratories are expanded to include digital electronics, electronic devices and applications. Digital topics include digital circuits, digital logic, flip flops, counter, memory, A/D and D/A conversion. Additional topics may include arithmetic units and microprocessors.

SP, even years

Prerequisite(s): PHY 204

GEN 320L - Advanced Circuits and Electronics Laboratory

0 Hour(s)

Laboratory component for GEN 320.

GEN 380 - Engineering Internship

4 Hour(s)

General Education

IDS 100 - Career Exploration

2 Hour(s)

This course helps students develop the knowledge and skills necessary to plan and pursue professional goals. A hybrid pedagogical model combines f2f, online and self-directed content develops students' understanding of potential career and education options as well as pathways to success. The course will be a mix of in-person class meetings, individually-scheduled experiences and online reflection.

IDS 200 - Career and Job Placement

2 Hour(s)

The Career & Job Preparation course helps students develop the knowledge and skills necessary to succeed in their future careers. Students will learn strategies to successfully secure and maintain employment. Students will also learn to self-evaluate and remediate/develop a range of abilities and attributes needed to be effective, adaptable, problem solving, and competitive professionals/adults in a dynamic and complex world.

German

GER 101 - Elementary German I

4 Hour(s)

A beginning course designed to introduce the student to the basic skills of understanding, speaking, reading and writing the German language. Introduction to Germanic cultures, politics, history, and literature through texts in English or in English translation from German. Conducted primarily in German.

FA

Prerequisite(s): Pre-requisite for GER 102: a grade of C or better in GER 101 or consent of the instructor

GER 102 - Elementary German II

4 Hour(s)

A beginning course designed to introduce the student to the basic skills of understanding, speaking, reading and writing the German language. Introduction to Germanic cultures, politics, history, and literature through texts in English or in English translation from German. Conducted primarily in German.

SP

Prerequisite(s): Pre-requisite for GER 102: a grade of C or better in GER 101 or consent of the instructor

GER 201 - Intermediate German I

4 Hour(s)

Continued practice in comprehension, speaking, reading, and writing. Review of and elaboration in grammatical structures, composition, and vocabulary building serve as aids in the development of conversational ability. Growth in reading skills and cultural enrichment produced through readings on contemporary German life. Conducted in German.

FA

Prerequisite(s): a grade of C or better in GER 102 or consent of the instructor for GER 201; a grade of C or better in GER 201 or equivalent or consent of the instructor for GER 202

GER 202 - Intermediate German II

4 Hour(s)

Continued practice in comprehension, speaking, reading, and writing. Review of and elaboration in grammatical structures, composition, and vocabulary building serve as aids in the development of conversational ability. Growth in reading skills and cultural enrichment produced through readings on contemporary German life. Conducted in German.

SP

Prerequisite(s): a grade of C or better in GER 102 or consent of the instructor for GER 201; a grade of C or better in GER 201 or equivalent or consent of the instructor for GER 202

GER 298 - Independent Studies in German

2 - 4 Hour(s)

FA, SP

Prerequisite(s): Junior standing and consent of instructor. Written proposals of projects must have the prior approval of the divisional dean and consent of the instructor prior to registration.

GER 301 - Conversation & Composition

4 Hour(s)

General Education H1 and CCD

An advanced German language course, which provides continued practice in conversation and composition with emphasis on new vocabulary. This course includes functional grammar review. Readings and discussions of literary as well as non-literary texts introduce students to more complex topics in German life, history, and culture. Reinforcement of basic phonetic elements and syntax to further refine pronunciation and composition. Conducted in German.

FA

Prerequisite(s): a grade of C or better in GER 202 or equivalent or consent of the instructor

GER 318 - Topics in German Culture and Literature

4 Hour(s)

General Education H2

This course surveys specific time periods and/or movements in German cultural history, including art, architecture, music, and literature. Students develop their ideas and improve their written and spoken communication skills through essays, oral reports, and a research paper. Conducted in German.

May be repeated with change of topic.

SP

Prerequisite(s): a grade of C or better in GER 301 or consent of instructor

GER 398 - Independent Studies in German

1 - 4 Hour(s)

FA, SP

Prerequisite(s): Junior standing and consent of instructor Written proposals of projects must have the prior approval of the divisional dean and consent of the instructor prior to registration

GER 401 - Advanced Conversation

2 Hour(s)

Guided discussions on a variety of topics enhance vocabulary building. Opportunities for both formal oral presentation and informal conversation promote practice, skill and confidence. Grammar is reinforced through practice centering on a particular voice, tense, and/or theme. Conducted in German.

Prerequisite(s): a grade of C or better in GER 301 or GER 318 or equivalent or consent of the instructor

GER 498 - Independent Directed Study

2 - 4 Hour(s)

Reading in a specific area of German literature, culture, or history. Weekly conferences conducted in German. Eight credits maximum will apply toward the degree.

FA, SP

Prerequisite(s): Junior standing and consent of instructor Written proposals of projects must have the prior approval of the divisional dean and consent of the instructor prior to registration

Graphic Communication

GRC 106 - Intro-Communication Technology

2 Hour(s)

This class provides an introduction to numerous computer applications (Adobe Creative Suite) used within the field of digital communication. Special emphasis will be placed on desktop publishing software, history of graphic design, inter-environment communications, graphics formats and file handling software.

FA, SP

GRC 110 - Print Media/Digital Publishing I

3 Hour(s)

Study offset lithography, flexography, and digital printing. Compare and contrast the advantages and disadvantages of the printing methods of gravure, and screen-printing. Produce single, two- and four-color printed pieces. Acquire knowledge relating to CTP, the PMS system, screens, halftones, print careers, print economics and the four-color process.

GRC 120 - Print Media II

3 Hour(s)

Print single and multicolored projects using primarily Heidelberg Printmaster GTO2 color 20-inch presses. Study the common elements of all presses the feeder, registration, printing, and delivery systems. Learn basic press maintenance and problem solving, pressroom chemistry, and safety. Become familiar with paper of various kinds, weights, textures, and sizes, as well as various types of ink.

Prerequisite(s): GRC 106

GRC 121 - Digital Illustration

3 Hour(s)

Enhance ability to draw on the computer with Adobe Illustrator. Learn how to apply various filters and colors to objects; create masks around objects; use the transformation tools (rotate, scale, reflect, shear, blend); create compounds and make special dashed lines to create many special effects.

Prerequisite(s): ART 250 and GRC 106

GRC 122 - Post Press/Distribution

3 Hour(s)

Explore current and emerging technologies for binding, finishing, and distributing printed materials. Learn the basic operations of commercial bindery and finishing equipment.

GRC 130 - Print Media III

3 Hour(s)

Use a computerized press console to set up and operate a Heidelberg SM742 color perfecting press. Reproduce high quality line and halftone copy in multiple colors on a Komori Sprint 262 color, a Heidelberg Printmaster GTO 525 color and other two-color presses. Discuss flexographic printing and platemaking.

GRC 135 - Digital Workflows

3 Hour(s)

Study computer integrated manufacturing technologies as applied to commercial printing production problems. Discuss preflighting, trapping, and imposition. Learn to properly prepare and analyze digital files for output to eliminate problems that can occur during the printing production process.

Prerequisite(s): GRC 121 and GRC 131 Image Editing/Photoshop

GRC 140 - Print Materials and Estimating

3 Hour(s)

Examine the scope and functions of printing estimating. Estimate, cost, and price various printing services. Discuss topics including computers for production and management, developing a cost estimating system, estimating paper, ink electronic prepress, press and finishing operations, and marketing and management issues. Analyze various operations within the printing industry.

Prerequisite(s): GRC 135

GRC 141 - Production Coordination/Customer Service

3 Hour(s)

Customer Service Explore the commercial printing manufacturing process. Examine the role and function of the customer service representative, electronic workflows, and time requirements for production of commercially printed products that are within budget.

Prerequisite(s): GRC 122, GRC 130

GRC 142 - Color Management

3 Hour(s)

Combine math, physics, and chemistry concepts with measurement and statistical process control methods to appraise, control, and improve color reproduction. Learn to use and work with densitometers, spectrodensitometers, spectrophotometers, tone reproduction control software, and color measurement software.

GRC 150 - Digital Toolbox - Photoshop/ Illustrator 1

4 Hour(s)

This course introduces Graphic Communication students to the professional design tools used by current design industry. Students will learn the differences between the raster and vector applications and the uses of each, how to access/utilize various color systems (print and web), and prepare files for final production within print, web, and multimedia.

FA, SP

GRC 200 - Color and Typography

4 Hour(s)

Color and Typography will explore, in detail, two of the four primary elements in digital media: the implementation of color and use of typography. Use of additive, subtractive and Pantone colors will comprise the color portion of the course; examination into word/letterforms, typefaces, and comprehension studies will comprise the typography portion of the course.

SP

Prerequisite(s): GRC 106 and GRC 150

GRC 210 - History of Graphic Design

2 Hour(s)

The history of Graphic Design begins with cave markings from approximately 200,000 years ago and continues through to today's digital technology processes. Students will investigate specific periods in graphic design history, explore historic methods in communication, and be introduced to the global influences in graphic design.

FA

GRC 230 - Digital Photography

4 Hour(s)

Digital Photography is designed to develop a student's skills in digital photography and its uses within print and digital presentations. Throughout the course of the semester, students will learn the differences between film and digital cameras, digital photo editing techniques, aesthetic qualities of photography, and the tools associated with digital photography. Students will learn to digitally capture images among a variety of photographic situations. Students will also learn how to prepare images for print and onscreen presentation.

(\$67 course fee)

FA, SP

GRC 290 - Digital Design Studio

4 Hour(s)

Students will build upon their skill set acquired in Digital Toolbox Photoshop and Illustrator I. Students will explore animation, web image development, paths and shapes creation, print file preparation, automation, and execution into other digital vehicles. Students will create a variety of projects that emphasize the importance of communication and audience.

SP

Prerequisite(s): GRC 150

GRC 295 - 3-D Digital Design

4 Hour(s)

3D Digital Design affords students the opportunity to create realistic environments, characters, and objects using state-of-the-art software. Students will learn to model, paint, sculpt, render and animate for environmental design, package design, gaming, product design, and industrial design.

FA, SP

Prerequisite(s): GRC 150

GRC 320 - Intro to Multimedia Production

4 Hour(s)

This course is designed as a Graphic Communication course, emphasizing artistic production using web development software, including, but not limited to: animation, digital video, and creating multimedia presentations and artworks. Multimedia, for the purposes of this course, means utilizing more than one of the following media elements: sound, images, text, video, animation, and/or interactivity, in all projects. Emphasis will be on the marriage of sound design, sophisticated content and visual interest.

FA, SP

Prerequisite(s): GRC 106 and GRC 150

GRC 330 - Video and Motion Graphics

4 Hour(s)

Students will learn how to use storyboarding techniques to develop short video projects, video indoor and outdoor scripted scenes, edit digital video, and enhance audio. Students will learn to identify scenes and still images that work best in a video project. Students will develop short video projects for specific and general audiences alike.

FA

GRC 360 - Interactive Media

4 Hour(s)

Students will utilize skills learned in GRC 320 to create Adobe Flash games for creative marketing application and entertainment. In addition to creating flash games, students will learn how to upload files for general audience use. Students will be assigned specific marketing projects for their Adobe Flash games for use across a wide variety of digital vehicles. Other Flash projects may be assigned during the semester to expand the student's understanding of techniques and objectives.

SP

GRC 390 - Advanced Design Thinking

4 Hour(s)

GRC 390 is a 4-credit course that builds upon the foundation provided in GRC 290 Digital Design Studio. This course will continue to familiarize students with the elements, tools, and applications used to create effective graphic communication projects. Its primary focus will be on exploring and identifying a creative process in order to comprehensively solve design problems. Students will explore stages of ideation, observation, research, design, analysis, refinement, final implementation and presentation. The course will expose students to various brainstorming techniques, investigative methodologies, software technology, and printing (finishing) techniques.

FA

Prerequisite(s): GRC 150, GRC 290, GRC 295

GRC 391 - Special Studies/Topics

1 - 4 Hour(s)

Study of a selected topic not covered in the regular curriculum. The topic will be announced prior to the beginning of the semester. Four credits maximum will apply toward degree.

Prerequisite(s): Consent of instructor

GRC 395 - Advanced Design Application

4 Hour(s)

GRC395 is a 4-credit course that provides a foundation of graphic design and multimedia principles including image creation, storytelling, 2D and 3D animation, motion graphics, and interactive media. An underpinning of design studies, including theoretical, historical, cultural and professional contexts, is given throughout the course. The course is divided between lectures and real-world projects with a variety of professional applications for digital media. The course continues work from GRC 390, Design Thinking.

SP

Prerequisite(s): GRC 320, GRC 330, GRC 390

GRC 398 - Independent Study

1 - 4 Hour(s)

GRC 450 - Capstone-Projects for Graphic Communication Majors

4 Hour(s)

A seminar intended to consolidate and expand your experience and education as well as a foundation for continued research as you prepare to enter your chosen field.

SP

Prerequisite(s): All program requirements completed or consent of instructor

GRC 480 - Internship-Graphic Communication

1 - 12 Hour(s)

Students must complete a minimum of four credits (120 hours) of internship work while at Carroll University. The internship course involves professional work experience in your field under the supervision of faculty and industry personnel. Course is repeatable to a maximum of 12 credits. Each four credits should have substantially different learning experiences. 120 hours of internship work experience is expected for every 4 credit hours attempted.

FA, SP, SU

Grading is S/U

Prerequisite(s): Junior or senior standing and director approval

GRC 491 - Special Studies/Topics

1 - 4 Hour(s)

Study of a selected topic not covered in the regular curriculum. The topic will be announced prior to the beginning of the semester. Four credits maximum will apply toward degree.

Prerequisite(s): Consent of instructor

Health Care

HCA 100 - Health Care Terminology

2 Hour(s)

The study of basic medical terminology by learning root words, prefixes and suffixes. The study focuses on correct pronunciation, spelling and use of medical terms. Anatomy, physiology, and pathology of disease are discussed yet no previous knowledge of these topics is necessary.

SP only

HCA 150 - Introduction to Health Care

4 Hour(s)

This course provides an introduction to the U.S. Health Care system. The current and historical social, political, and regulatory factors that influence the health care system in the United States are reviewed. Students are introduced to the structure, organization, financing, and utilization of health care services in the United States. Comparison of international and United States health delivery systems are reviewed.

SP and SU

HCA 200 - Health Care Economics and Policy

4 Hour(s)

This course will explore the development of health policy in the United States and the impact it has on financing, organizing, and delivering health care services. Basic economic theories and their relationships to the structure and function of the United States health care system are explored. Special attention is paid to current national policy, health care reform and alternative health care systems.

FA only

Prerequisite(s): BUS 101 and HCA 150

HCA 300 - Health Care Management

4 Hour(s)

This course addresses the management of organizations that deliver health care services. The course will examine the principles of effective management including organizational design, motivation, leadership, conflict management, teamwork, and cultural proficiency. Management issues that distinguish health services organizations from other types of organizations will be identified and strategies for dealing with these issues will be evaluated.

SP only

Prerequisite(s): BUS 101 and HCA 150

HCA 350 - Health Care Law and Ethics

4 Hour(s)

This course presents an overview of legal and ethical issues facing managers and providers in health care. It provides students with a foundation of health law and ethical theory and reviews a wide variety of health care legal and ethical situations. Emphasis is placed on practical knowledge of health laws and ethics and their application in health care organizations. (Fall only)

Prerequisite(s): BUS 101 and HCA 150

HCA 400 - Health Care Financial Management

4 Hour(s)

This course is designed to impart a working knowledge of introductory accounting and financial management concepts, techniques, and vocabulary as they apply to health care organizations. Applications of modern hospital and healthcare organization financial management and decision TO making are explored to prepare students for executive roles in healthcare settings. Financial management techniques used in budget preparation, investment alternatives, financial forecasting, and capital structures are presented with a focus on healthcare organizations.

FA only

Prerequisite(s): ACC 205, BUS 101 and HCA 150

HCA 450 - Health Care Information Management

4 Hour(s)

This course examines information systems as they relate to health care. Students will analyze information systems in clinical management, administration, education and research. The course emphasizes definitions, theory, technologies, workflow and expectations.

SP only

Prerequisite(s): BUS 101 and HCA 150

Health Education

HED 101 - Intro to Health Care Skills

1 Hour(s)

The purpose of this course is to provide the knowledge and skills that are necessary to become First Aid and Adult, Child, and Infant CPR/AED certified in accordance with the American Red Cross Basic Life Support for the Healthcare Provider guidelines. Students will also learn policies and standards regarding bloodborne pathogens and occupational exposure in accordance with the Occupational Safety and Health Administration (OSHA) guidelines.

(Required course fee)
FA, WN, SP

HED 103 - Personal and Community Health

4 Hour(s)

Studies the dynamics of health in modern life with special emphasis on health concepts relevant to personal and community living.

FA, SP

HED 201 - Nutrition

2 Hour(s)

Basic principles of nutrition are covered as well as current problems and topics regarding both personal and world nutrition today. Designed for the public school teacher, the community health educator or those in related fields.

FA

HED 202 - Drugs, Society and Human Behavior

2 Hour(s)

This course is directed at introducing social, psychological, pharmacological and cultural aspects of drug use, misuse and abuse. In addition, the methods, materials and theories of drug abuse prevention in the school and community are introduced.

WN

HED 204 - Human Sexuality

2 Hour(s)

This course reviews current information on health and human sexuality. Emphasis is given to cognitive and affective components of human sexuality. Major issues and topics in human sexuality are covered with particular attention to gender as it affects these issues.

SP

HED 205 - Community Mental Health

2 Hour(s)

This course provides instruction in promotion of mental health on a community level. Counseling and patient education skills necessary to help individuals, families, and social groups cope with normal developmental challenges as well as the most prevalent community mental health problems, including modification of health TO related behaviors, are presented. This course explores violence and substance abuse, including assessment for elder, partner, and child abuse. Emphasis is on prevention strategies and promotion of wellness behaviors. Systems TO level program development and evaluation is included.

FA

HED 206 - Taking Charge of Your Health and Wellbeing

2 Hour(s)

This course provides students with the knowledge, skills, and abilities to analyze the impact of diet, exercise, stress management, health and other areas of total wellness on the quality of life. Through hands-on instruction and practice, students will create programs designed to improve and maintain health-related components of fitness and performance. This class will provide opportunities to use a variety of learning techniques discussed during the classroom, virtual classroom (Canvas), and lab days.

SP

HED 207 - Gerontology for Healthcare

2 Hour(s)

This course examines factors impacting the health of older adults, including the exploration of stigma, socioeconomics, physiological changes, pharmacologic factors, psychological needs, and legal issues. Current health care resources and programming will be investigated along with innovative solutions to the health care crisis faced by many older adults. End-of-life issues will also be discussed.

FA alternate years

HED 323 - School Health Programs

2 Hour(s)

Studies the importance of well TO organized and planned school health programs with special emphasis on the importance of health to the school. Graduate credit available.

SP

HED 353 - Special Methods in Teaching Health Education

4 Hour(s)

Applications of general principles and methods of teaching health education. Special emphasis upon selection, use, and preparation of equipment, materials, teaching aids, and other resources especially designed for the health education setting (Pre TO K TO 12).

FA

Prerequisite(s): HED 323

History

HIS 103 - Roots of the Western World

4 Hour(s)

General Education H1

This survey course traces the Western experience from our classical heritage to the French Revolution. It examines the major political, social, economic and religious institutions which worked to shape the world we live in today.

FA, SP

HIS 104 - Europe and the Modern World

4 Hour(s)
General Education H1

This survey course complements HIS 103 by exploring ideas and events that have shaped European society and Europe's relations with other parts of the world since the French Revolution.

FA, SP

HIS 105 - America to 1877

4 Hour(s)
General Education H1

This course introduces students to the origins of the United States from pre-Columbian times to the end of Reconstruction.

FA, SP

HIS 106 - America since 1877

4 Hour(s)
General Education H1

A study of the American experience since Reconstruction.

FA, SP

HIS 106H - America Since 1877

4 Hour(s)
A study of the American experience since Reconstruction, which focuses primarily on stimulating critical thinking and historical inquiry. The course draws upon extensive primary sources to explore a series of historical questions about recent American history and culture.

FA, odd years
Prerequisite(s): Honors student or permission of instructor

HIS 107 - Understanding the Premodern World

4 Hour(s)
General Education H1

An examination of global societies prior to 1500 with an emphasis on the non-western world, this course considers their development individually and in contact with one another, as well as their contributions to the making of the early modern world system.

FA

HIS 108 - Understanding Our Contemporary World

4 Hour(s)
General Education H1

An examination of non-western societies from 1500, their development, their responses to the West, and their contributions to the making of the modern world.

SP

HIS 109 - Kilts and Castles: The Middle Ages in the Movies

4 Hour(s)

General Education H1

Have you ever wondered how accurate movies like Braveheart are, or why they say what they do about the middle ages? If so, this course is for you! In this class you'll learn about the real history that will allow you to critically evaluate films we'll watch in class, while also learning about medieval kings and queens, heretics and inquisitors, women and men.

SP

HIS 110 - History of Modern China

4 Hour(s)

General Education H1 and CCD

This course examines Chinese history and culture with an emphasis on the 19th and 20th centuries. Specific attention is given to China's reformers and revolutionaries and their attempts to transform Chinese political, economic, and social institutions.

HIS 112 - Intro to Latin America History

4 Hour(s)

General Education H1 and CCD

This survey of Latin America from preconquest to the present focuses on the historical roots of contemporary issues in Latin America such as poverty, race relations, cultural mixing, and international relations. The class draws in part on Latin American literature, arts, and cinema to facilitate this investigation. ENG 170 is recommended prior to enrollment.

SP

HIS 120 - Coming to America: Immigrants in U.S. History

4 Hour(s)

General Education H1 and CCD

One of the United States' most cherished founding stories is that "we are a nation of immigrants." Yet, anti-immigration sentiment, nativism, and ethnocentrism, manifested in law, discrimination, and violence, recur in that same history. How and why do these two things co-exist? This course will introduce students to the history of immigration and immigrants to the United States from the colonial period to the present, in order to better contextualize the debates of the twenty-first century.

FA odd years

HIS 120H - Coming to America: Immigrants in U.S. History

4 Hour(s)

General Education H1 and CCD

One of the United States' most cherished founding stories is that "we are a nation of immigrants." Yet, anti-immigration sentiment, nativism, and ethnocentrism, manifested in law, discrimination, and violence, recur in that same history. How and why do these two things co-exist? This course will introduce students to the history of immigration and immigrants to the United States from the colonial period to the present, in order to better contextualize the debates of the twenty-first century.

FA odd years

HIS 121 - Comparative Genocide

4 Hour(s)

General Education H1 and CCD

This course examines genocide as a defining phenomenon of Western Civilization during the 19th, 20th and 21st centuries. Taking a comparative approach, students use primary and secondary sources to examine the contexts, justifications, technologies and consequences of several internationally-recognized genocides. The course also explores international efforts to hold governments and individuals accountable for genocidal acts, and the question of whether (and how) genocide can be prevented. The course also considers the extent to which recent conflicts meet-, or defy- these international standards.

FA

HIS 122 - The End of the World: Foretelling Endtimes in American History

4 Hour(s)

General Education H1 and CCD

The world is ending! Or so have believed thousands of Americans over the past three hundred years. This course examines the numerous intellectual, social, and religious movements in American history that have foretold the end of the world. We will closely examine and compare the historical cultures in the United States that have produced millennial and millenarian views and their effects on mainstream American culture in order to understand their origins and long term significance.

HIS 200 - Workshop for Historians

4 Hour(s)

This course prepares students for independent research in 300 level courses, the capstone, and beyond. Students discuss and apply tools, methods and interpretative approaches used in historical research. Students should plan to take this during their sophomore year, before enrolling in 300-level history courses.

HIS 203 - The American Civil War

4 Hour(s)

Examines the multiple origins of the American Civil War and the two cultures swept up in the conflict. Traces the political, social, diplomatic and military history of the war years.

Prerequisite(s): HIS 105 or permission of the department chair

HIS 210 - Hist-American Foreign Relations

4 Hour(s)

General Education H2

An overview of the foreign relations of the United States from colonial times to the present, with an emphasis on the period since 1900. The course examines the ways in which economic developments, domestic concerns, and cultural attitudes have helped shape the foreign policies of the United States.

SP, even years

HIS 213 - Women in American History

4 Hour(s)

General Education H2

This course investigates the history of women in the United States from the colonial era to the present, with particular emphasis on the ways in which race and class have shaped women's experiences.

FA, even years

HIS 215 - American Encounters: Natives, Africans, and Europeans in the Americas, 1350-1750

4 Hour(s)

General Education H2 and CCD

This course examines the complex interactions between indigenous peoples, European colonizers and African peoples in the Spanish, Portuguese, French and British American colonial worlds. The course begins with examination of the pre-Columbian native cultures and then traces the development colonial society with particular emphasis on the cultural exchanges that occurred between these disparate peoples and the role of labor, religion, and popular resistance in that history.

FA, odd years

HIS 217 - Renaissance and Reformation Europe

4 Hour(s)

General Education H2

This focuses on important changes occurring in Europe from the last quarter of the fourteenth century to the mid seventeenth century. The period was one of educational, cultural, and religious change and reform, including the development of such important religious traditions as Lutheranism, Calvinism, and the Baptist tradition. We will explore topics through the reading of primary and secondary sources, culminating in a research project focused on secondary source research.

FA, even years

HIS 218 - American Indian History

4 Hour(s)

General Education H2 and CCD

This course examines the history of the indigenous peoples of North America from pre-history to the present. Major themes will include the relationship between native peoples and the environment, the effect of contact on native cultures, the relationship among native tribes and between natives and the state, the place of the "Indian" in popular culture, and the changing status and

identity of American Indians in American society.

SP odd years

HIS 224H - The World Since 1945

4 Hour(s)

General Education H1 and CCD

A discussion-based study of themes and conflicts that have shaped global society since the end of World War II. Students use primary documents, autobiographies, oral histories and other sources of their own choosing to examine the Cold War, the developing world, genocide and other topics.

FA, even years

Prerequisite(s): Honors student or history major with permission of instructor

HIS 225H - Medieval Europe, China, and the Islamic Crescent

4 Hour(s)

General Education H2 and CCD

A study of the period before the development of European hegemony, focusing on contact between these three overlapping world cultural zones. In this course we examine the way in which economic, cultural, and intellectual interchanges affected the development of the civilizations under consideration as well as laying the foundation for future global interaction.

SP, even years

Prerequisite(s): Honors student; history majors and minors may be admitted by prior consent of the instructor

HIS 254 - Scholars, Saints, and other Medieval Ne'er Do Wells

4 Hour(s)

General Education H2

The middle ages saw the development of many ideas, institutions, and movements that affect our modern world. The Catholic church came into existence, universities emerged, and ideas about sex, gender, and how to understand the world that everyone in the western world deals with on a daily basis all came into being. This seminar course focuses on classroom discussion combined with writing assignment in order to develop human literacy, cultural agility, and critical thinking.

FA, even years

HIS 257 - Europe's Civil War: 1900-1950

4 Hour(s)

General Education H2 and CCD

This course examines political, social, cultural and technological upheavals in Europe during the first half of the 20th century, including WWI and WWII. The course combines chronological and thematic approaches to highlight the major retooling of Euro-centric attitudes during this period. Students will interpret the extent to which broad claims hold true for particular populations. HIS 257 is NOT a course in U.S. History, but does count as a 200-level course in the history major/minor.

SP, odd years

Prerequisite(s): H1 or equivalent, or permission of instructor

HIS 280 - Internship in History

2 - 4 Hour(s)

An opportunity for majors to earn elective credit for work experiences related to history. Examples of potential internships include: research work at local historical societies, museum experience at Old World Wisconsin, work in public history, in non-profit organizations, or with various government agencies. Other work-oriented experiences may be designed by the student with the approval of the instructor. Internship credits will apply toward the degree but not toward the history major.

FA, SP, SU

The work is S/U graded

Prerequisite(s): Junior or senior standing, requires the consent of the instructor

HIS 291 - Topics in History

2 - 4 Hour(s)

Intensive investigations of special subject matter. Recent topics include: World War II: Experiences and Legacies; America in the 1960s; Native American history; Central Europe; and Medieval Magic. Topics courses may be offered also at the 300 research course level.

Students may take more than one of these topic courses.

Prerequisite(s): Junior standing or consent of the instructor (for 300-level)

HIS 298 - Independent Study in History

2 - 4 Hour(s)

Generally permitted only in areas where the student has some background.

FA, SP

Prerequisite(s): Approval of the divisional dean and consent of the instructor

HIS 301 - The Forging of a Nation - The Colonial and Revolutionary Experience in North America

4 Hour(s)

General Education H2 and CCD

This course investigates the transformation of the English colonies in North America from the first encounters in the 1580s through the American Revolution, with particular emphasis on the social, political, and religious institutions that emerged out of the encounters between English colonists, Native Americans, and Africans.

SP, even years

Prerequisite(s): Junior standing or consent of the instructor

HIS 305 - Recent America

4 Hour(s)

General Education H2

This course examines the history of the United States since the end of World War II to the present. It explores in particular the

important social, political, and cultural developments of the period.

SP, odd years

Prerequisite(s): Junior standing or consent of the instructor

HIS 316 - Renaissance and Reformation Europe

4 Hour(s)

General Education H2

This is a research-oriented course focusing on important changes occurring in Europe from the last quarter of the fourteenth century to the mid seventeenth century. The period was one of educational, cultural, and religious change and reform. We will explore topics through the reading of primary and secondary sources, culminating in a research project focused on primary sources.

FA, even years

HIS 318 - American Indian History

4 Hour(s)

General Education H2 and CCD

This course examines the history of the indigenous peoples of North America from prehistory to the present. Major themes will include the relationship between native peoples and the environment, the effect of contact on native cultures, the relationship among native tribes and between natives and the state, the place of the 'Indian' in popular culture, and the changing status and identity of American Indians in American society

SP, odd years

HIS 329 - The German Experience

4 Hour(s)

General Education H2 and CCD

A research-oriented course examining modern German history. Emphasis is placed on the process of unification, the Nazi era, the GDR and reunification.

FA, odd years

Prerequisite(s): Junior standing or consent of the instructor

Also Offered As: POL 329

Note(s): Students planning to take HIS 329 for their German language minor must contact the instructor (in the semester before they enroll in HIS 329) to develop a plan for adapting coursework to incorporate and demonstrate appropriate use of the language.

HIS 391 - Topics in History

4 Hour(s)

Intensive investigations of special subject matter. Recent topics include: World War II: Experiences and Legacies; America in the 1960s; Native American history; and Medieval Magic. Topics courses may be offered also at the 300 research course level.

Students may take more than one of these topic courses.

Prerequisite(s): Junior standing or consent of the instructor (for 300-level)

HIS 398 - Independent Study in History

2 - 4 Hour(s)

Generally permitted only in areas where the student has some background.

FA, SP

Prerequisite(s): Approval of the divisional dean and consent of the instructor

HIS 499 - Capstone - Senior Seminar for Historians

4 Hour(s)

This course requires students to produce a high-quality research paper based largely on primary sources and to formally present their work before other students and the history faculty. Students will also complete a portfolio including a representative sample of their previous written work in history courses.

FA

Prerequisite(s): HIS 200 and one 300-level research course

Health Sciences

HSC 311 - Cardiovascular Physiology

3 Hour(s)

This course is designed to put into practice basic and advanced cardiovascular physiology concepts. The course will include the conduction system, circulation system, ECG pattern recognition and intracardiac pressures. CV physiology will also explore the heart at the cellular level. Student will learn about the cardiac action potential, coupling and uncoupling of myocardial sarcomeres and preload/afterload concepts. This course will include cardiac heart sounds and other clinical clues used in conjunction with echocardiographic evidence to determine a cardiac diagnosis.

HSC 312 - Cardiovascular Principles

3 Hour(s)

The first half of the course focuses on structure, function and pathology of the cardiovascular system. Mechanisms of function of the cardiovascular system will be discussed. Cardiac structures and identification will be covered. The second portion of this course will provide the necessary skills and knowledge to perform a complete cardiac Doppler examination. The course will cover the introduction to cardiac Doppler assessment, Doppler hemodynamics, and color flow imaging. The student will learn how to perform Doppler assessment and quantification of severity of valvular stenosis and regurgitation. Students will also learn how to provide information for both systolic and diastolic Doppler assessments.

HSC 313 - Adult Echocardiography I

3 Hour(s)

This course focuses on the necessary knowledge and assessment of adult cardiomyopathies. Students will learn how to perform a comprehensive assessment of hypertrophic, restrictive, dilated, arrhythmogenic and unclassified cardiomyopathies. Students will learn the necessary 2D imaging and Doppler hemodynamics assessments to complete a full comprehensive examination.

HSC 314 - Adult Echocardiography II

3 Hour(s)

This course focuses on the necessary knowledge and assessment of adult valvular heart disease. Students will learn how to perform a comprehensive valvular heart assessment. This course will include an introduction to valvular disease, echocardiographic assessment of the aortic, mitral, tricuspid and pulmonary valve using 2D, M-mode, Doppler and color flow imaging. The course will also cover surgical valvular interventions and interrogation of both pre-op and post-op complete echocardiographic hemodynamic assessments.

HSC 315 - Adult Echocardiography III

3 Hour(s)

The focus of this course is to provide the basic knowledge of major cardiac pathophysiology that students will encounter while practicing echocardiography. This course will cover systemic and pulmonary hypertension, infiltrative heart disease, cardiac tumors and masses, pericardial disease, cardiac diseases related to systemic illness, and diseases of the great vessels. Students will learn how to complete a comprehensive 2D and Doppler assessment of these major cardiac diseases.

HSC 316 - Embryology of the Heart

3 Hour(s)

This course will discuss cardiovascular development as it relates to various types of congenital heart disease.

HSC 317 - Special Procedures in Echocardiography

3 Hour(s)

This course focuses on the necessary knowledge and role of cardiac sonographers in special cardiac imaging procedures. Students will learn the fundamentals as well as the basic techniques of transesophageal imaging, contrast echocardiography, cardiac resynchronization therapy, pacemaker optimization setting, strain rate, twist/torsion, three-dimensional (3D) and pericardiocentesis imaging.

HSC 318 - Pediatric Echocardiography I

3 Hour(s)

This course will introduce the student echocardiographer to various types of congenital heart disease. The types of congenital heart disease to be discussed in this course are; atrial septal defect (ASD), ventricular septal defect (VSD), patent ductus arteriosus (PDA), transposition of the great arteries (TGA), double outlet right ventricle (DORV) and double outlet left ventricle (DOLV).

HSC 319 - Stress Echocardiography

3 Hour(s)

The intent of this course is to focus on preparing the student for coronary artery disease and stress echocardiography testing. Students will become competent in coronary artery distribution and anomalies. Student will actively participate in numerous stress echocardiographic examinations during this rotation.

HSC 320 - Pediatric Echocardiography II

3 Hour(s)

This course will discuss the role of ultrasound in evaluating the pediatric heart and complex congenital heart disease. Types of CHD to be discussed in this course include inflow lesions, review of conotruncal anomalies, outflow lesions, cardiac chamber anomalies, abnormal vascular communications, cardiomyopathies, and post-operative evaluation of repair of congenital heart disease.

HSC 350 - Introduction to Radiologic Science and Healthcare

2 Hour(s)

This 16 week two-credit course is designed as an introduction to provide an overview of the foundations in radiography and the practitioner's role in the health care delivery system. Principles, practices and policies of the health care organizations are examined and discussed in addition to professional responsibilities of the radiographer. Course content will include an introduction to basic concepts of body mechanics, vital signs, EKG, infection control and medical emergencies. CPR certification will be completed. Evaluation will be on the basis of critical thinking questions, a patient care paper, unit tests and a final exam.

HSC 351 - Seminar in Radiography I

3 Hour(s)

This is a three-credit course; content is designed to provide the basic concepts of patient care, including consideration for the diversity, physical and psychological needs of the patient and family. In addition the course will provide the intern with advanced knowledge of aseptic and sterile techniques, venipuncture, pharmacology and medical ethics and law. Evaluation will be on the basis of quizzes, unit tests, and a final exam.

HSC 352 - Radiation Protection

2 Hour(s)

This is a two-credit course. Content is designed to present an overview of the principles of radiation protection including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are incorporated. Course includes all aspects of radiation protection, dose limiting recommendations, detection duties and the cardinal principles of protection. Evaluation is on the basis of quizzes, unit tests and a final exam.

HSC 353 - Medical Terminology

2 Hour(s)

This is a two-credit course. This will be a self-study unit. Interns will be required to complete all tests on the intranet. All assignments must be completed by the end of the second semester. Course work includes medical suffixes and prefixes, word-roots, and combining forms. Evaluation will be based on unit tests. Note: Only students accepted into the hospital phase of the Radiologic Technology program may register for this course.

Restrictions: This course is taught off-site and therefore not open to students in other majors.

HSC 354 - Principles of Imaging I

2 Hour(s)

This is a two-credit course; content is designed to provide an overview of basic mathematics, an introduction to x-ray production, exposure factors, the control panel, beam restriction, filters, computed radiography, grids and radiographic quality. Evaluation will be based on quizzes, unit exams and a final exam.

HSC 355 - Principles of Imaging II

3 Hour(s)

This is a three-credit course; content is design to provide an knowledge on radiographic film, screens and film processing, radiographic quality, special imaging equipment. Evaluation will be based on quizzes, unit exams and a final exam.

HSC 356 - Imaging Procedures I

5 Hour(s)

This is a five-credit course utilizing lectures, demonstrations and laboratory practice. Items to be covered include radiographic anatomy and procedures and of the upper and lower extremities, chest, abdomen, and barium studies. Pediatric imaging for each procedure will be discussed. The interns will identify radiographic anatomy, assess radiographic images for accurateness and identify evaluation criteria for a variety of procedures. This course integrates knowledge and skills from several didactic units. Evaluation will be based on quizzes, unit tests and a final exam.

HSC 357 - Imaging Procedures II

5 Hour(s)

This is a five-credit course, utilizing lectures, demonstrations and laboratory practice. Radiographic anatomy and procedures for the bony thorax, vertebral column, and iodinated studies will be covered. Pediatric imaging for each procedure will be discussed. The pharmacology of contrast media will be introduced. The intern will identify radiographic anatomy, assess radiographic images for accurateness and identify evaluation criteria for a variety of procedures. This course integrates knowledge and skills from several didactic units. Evaluation will be based on quizzes, unit tests and a final exam.

HSC 358 - Imaging Procedures III

3 Hour(s)

This is a three-credit course, utilizing lectures, demonstrations and laboratory practice. Radiographic anatomy and procedures for the cranium, facial bones will be discussed. Pediatric imaging for each procedure will be discussed. The interns will identify radiographic anatomy, assess radiographic images for accurateness and identify evaluation criteria for a variety of procedures. Historical exams and special fluoroscopic imaging will also be presented. This course integrates knowledge and skills from several didactic units. Evaluation will be based on quizzes, unit tests and a final exam.

HSC 359 - Radiography Clinical Education I

3 Hour(s)

The clinical education is broken down into six semesters. There are a required number of competencies the intern must complete by the end of the 6th semester. Evaluation of the intern's positioning skills, equipment manipulation, and use of radiation protection, patient care and knowledge of image production is conducted by the Clinical Instructors, Clinical Coordinator, Program Director and qualified staff technologists. The breakdown of clinical credit is as follows: Semester I HSC 359 3 credits Semester II HSC 360 3 credits Semester III HSC 361 4 credits Semester IV HSC 459 3 credits Semester V HSC 460 3 credits Semester VI HSC 461 4 credits

HSC 360 - Radiography Clinical Education II

3 Hour(s)

The clinical education is broken down into six semesters. There are a required number of competencies the intern must complete by the end of the 6th semester. Evaluation of the intern's positioning skills, equipment manipulation, and use of radiation protection, patient care and knowledge of image production is conducted by the Clinical Instructors, Clinical Coordinator, Program Director and qualified staff technologists. The breakdown of clinical credit is as follows: Semester I HSC 359 3 credits Semester II HSC 360 3 credits Semester III HSC 361 4 credits Semester IV HSC 459 3 credits Semester V HSC 460 3 credits Semester VI HSC 461 4 credits

HSC 361 - Radiography Clinical Education III

4 Hour(s)

The clinical education is broken down into six semesters. There are a required number of competencies the intern must complete by the end of the 6th semester. Evaluation of the intern's positioning skills, equipment manipulation, and use of radiation protection, patient care and knowledge of image production is conducted by the Clinical Instructors, Clinical Coordinator,

Program Director and qualified staff technologists. The breakdown of clinical credit is as follows: Semester I HSC 359 3 credits Semester II HSC 360 3 credits Semester III HSC 361 4 credits Semester IV HSC 459 3 credits Semester V HSC 460 3 credits Semester VI HSC 461 4 credits

HSC 370 - Introduction to Diagnostic Medical Sonography

3 Hour(s)

This course encompasses the first four (4) weeks of training. Course content includes emphasis on personal adaptation skills, nursing skills and staff development issues. An introduction to basic sonographic terminology, techniques, ultrasound physics, scanning techniques and abdominal sonography form the framework for future study. Lectures are correlated with scan lab demonstration and practice. The student handbook policies and procedures are emphasized.

HSC 371 - Abdominal Sonography I

3 Hour(s)

This course focuses on the normal gross, cross-sectional, relational and sonographic anatomy of the upper abdomen to include blood vessels, liver, gall bladder, biliary system and pancreas. Physiology, pathology and related laboratory values are emphasized and correlated with sonographic findings. Lectures are correlated with scan lab demonstration and practice for each organ system.

HSC 372 - Abdominal Sonography II

3 Hour(s)

This course focuses on the normal gross, cross-sectional, relational and sonographic anatomy of the upper abdomen to include kidneys, spleen, adrenal glands and retroperitoneum. Physiology, pathology, and related laboratory values are emphasized and correlated with sonographic findings. The use and importance of color and spectral Doppler will be emphasized. Each student must formally present one case study during this semester. Lectures are correlated with scan lab demonstration and practice for each organ system.

HSC 373 - Clinical Education I

3 Hour(s)

The clinical component of our program allows students to rotate through all aspects of general and vascular sonography. Students progress in competence and ability on an individual basis and within the guidelines set forth by program faculty. A total of 19 competencies must be achieved during the duration of the program. This course focuses on an introduction to sonographic scanning, beginning abdominal technique and development of clinical skills. Sonographic technique is also practiced during routinely scheduled scan lab sessions, which are conducted by the program faculty.

HSC 374 - Clinical Education II

3 Hour(s)

The clinical component of our program allows students to rotate through all aspects of general and vascular sonography. Student's progress in competence and ability on an individual basis and within the guidelines set forth by program faculty. A total of 19 competencies must be achieved during the duration of the program. This course will focus on the mastery of abdominal and pelvis/transvaginal scanning, and development of obstetrical scanning skills. Sonographic technique is also practiced during routinely scheduled scan lab sessions, which are conducted by the program faculty.

HSC 375 - Clinical Education III

3 Hour(s)

The clinical component of our program allows students to rotate through all aspects of general and vascular sonography.

Student's progress in competence and ability on an individual basis and within the guidelines set forth by program faculty. A total of 19 competencies must be achieved during the duration of the program. This course focuses on the refinement of abdominal, pelvic, obstetrical and small parts scanning skills. Sonographic technique is also practiced during routinely scheduled scan lab sessions, which are conducted by the program faculty.

HSC 376 - OB/GYN Sonography I

3 Hour(s)

This course focuses on the normal gross, cross-sectional, relational and sonographic anatomy of the non-gravid female pelvis and the first trimester gravid uterus and developing fetus. Physiology, pathology and related laboratory values are emphasized and correlated with sonographic findings.

HSC 377 - OB/GYN Sonography II

3 Hour(s)

This course focuses on the gravid uterus and developing fetus. Normal gross, cross-sectional, relational and sonographic anatomy will be discussed. Gestational dating methods, measurements, fetal and maternal health, placenta and multiple pregnancies are considered. Physiology, pathology and related laboratory values are emphasized and correlated with sonographic findings. Lectures are correlated with practical clinical experience.

HSC 378 - OB/GYN Sonography III

3 Hour(s)

This course encompasses the disease states and toxins affecting both the developing fetus and the mother. Abnormal fetal development, anatomy and anomalies are emphasized. Lectures are correlated with practical clinical experience. Each student must formally present one case study during this semester.

HSC 379 - Specialized Sonography

3 Hour(s)

This course focuses on the normal gross, cross-sectional, relational and sonographic anatomy of superficial structures, to include the male pelvis (bladder, prostate and scrotum), the thyroid and parathyroid glands and the breast. Pathologic findings encountered during these exams will be correlated with possible causative etiologies. Physiology, pathology and related laboratory values are emphasized and correlated with sonographic findings.

HSC 380 - Sonography Principles & Instrumentation

3 Hour(s)

This course focuses on mathematical principals, the characteristics of sound and the mechanism of sonographic image production and display. Potential biological effects and safety are discussed together with the practical application of physical concepts.

HSC 430 - Seminar in OB/GYN

3 Hour(s)

HSC 431 - Fetal Echocardiography

3 Hour(s)

This course will discuss the role of ultrasound in evaluating the fetal heart and introduce the student to a broad spectrum of

congenital heart disease. This course will cover embryology of the heart along with the fetal echocardiography exam and protocols.

HSC 432 - Vascular Sonography III

3 Hour(s)

This course focuses on the normal and abnormal gross, relational, cross-sectional and sonographic anatomy of the vascular system to include the abdominal vasculature, organ transplants, and penile Doppler. Mechanisms of disease, unique to the vascular system, as well as the relationship between cardiovascular disease and the health of other organ systems will be discussed. Correlation of laboratory findings and etiologies of disease will be covered. Advanced scanning techniques will be discussed. A short correlation of statistical data and vascular testing will be covered.

HSC 434 - Introduction to Pediatric Imaging

3 Hour(s)

This course focuses on the anatomy, physiology, pathology and pathophysiology of each organ system of the abdomen, pelvis and other structures typically seen in the pediatric and adolescent patient. Normal anatomy and disease processes within the gastrointestinal system of the pediatric and adult patient will also be discussed. Students will become familiar with the clinical symptoms, lab values and specific ultrasound protocols for normal and abnormal cases.

HSC 435 - Introduction to Musculoskeletal Imaging

3 Hour(s)

This course focuses on the introduction of normal gross, cross-sectional, relational and sonographic anatomy of the musculoskeletal system. Pathologic findings encountered during these exams will be correlated with possible causative etiologies. Physiology and pathology are emphasized and correlated with sonographic findings.

HSC 450 - Radiographic Physics I

2 Hour(s)

This is a two-credit course. Course content is designed to establish basic knowledge of atomic structure and terminology. Also presented are the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter. Introduction will include magnetism, electricity, and electromagnetism. Evaluation will be on the basis of unit tests and a final exam.

HSC 451 - Radiographic Physics II

2 Hour(s)

This is a two-credit course. Content is designed to establish knowledge in tube and generator circuitry. Also presented are the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter. Evaluation will be on the basis of quizzes, unit tests and a final exam.

HSC 452 - Digital Imaging

3 Hour(s)

This is a three-credit course; content is designed to impart an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition display, archiving and retrieval are discussed. Guidelines for selection of exposure factors and evaluating images within a digital system assist interns to bridge between film-based and digital imaging systems. Evaluation will be on the basis of quizzes, unit tests, and a final examination.

HSC 453 - Seminar in Radiography II

2 Hour(s)

This is a two-credit course; content is designed to provide the intern the ability to evaluate all aspects of the imaging system from processor to generator. The intern will perform basic equipment tests, identify and trouble shoot equipment problems. Lecture on quality control and quality assurance procedures within a radiology department will be covered. Evaluation will be on the basis of the accuracy and timeliness of laboratory procedures, unit tests and a final exam.

HSC 454 - Cross Sectional Anatomy

3 Hour(s)

This is a three-credit course designed to give the intern basic knowledge of cross-sectional anatomy at a minimum of the head and neck, thorax and abdomen. Evaluation will be on the basis of quizzes, unit tests and a final exam. Instruction incorporates CT and MR images.

HSC 455 - Independent Study

2 Hour(s)

Interns will be assigned a written research project that will include an oral presentation, video display or a scientific exhibit. This project will be assigned two credits. This will enable the intern to develop critical thinking, research and writing skills along with an appreciation for professional development. Evaluation will be on the basis of research organization, completeness and presentation. The intern will select a topic of their choice. Successful completion of the independent study is a graduation requirement.

HSC 456 - Imaging Procedures IV

2 Hour(s)

This is a two-credit course. Topics to be covered include Special Orthopedic positioning, special gastrointestinal positioning, interventional procedures, basic principles of CT and MRI imaging. Evaluation will be on the basis of quizzes, tests and a final exam.

HSC 457 - Radiographic Pathology

2 Hour(s)

This is a two credit course; content is designed to introduce concepts related to disease and etiological considerations with emphasis on radiographic appearance of disease and impact on exposure factor selection. Evaluation will be on the basis of quizzes, unit exams and a final exam.

HSC 458 - Radiation Biology

2 Hour(s)

This is a two-credit course; content is designed to provide an overview of the principles of the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues and the body as a whole are presented. Factors affecting biologic response are presented, including acute and chronic effects of radiation. Evaluation is on the basis of quizzes, unit tests and a final exam.

HSC 459 - Radiography Clinical Education IV

3 Hour(s)

The clinical education is broken down into six semesters. There are a required number of competencies the intern must complete by the end of the 6th semester. Evaluation of the intern's positioning skills, equipment manipulation, and use of radiation

protection, patient care and knowledge of image production is conducted by the Clinical Instructors, Clinical Coordinator, Program Director and qualified staff technologists. The breakdown of clinical credit is as follows: Semester I HSC 359 2 credits Semester II HSC 360 3 credits Semester III HSC 361 4 credits Semester IV HSC 459 3 credits Semester V HSC 460 3 credits Semester VI HSC 461 4 credits

HSC 460 - Radiography Clinical Education V

3 Hour(s)

The clinical education is broken down into six semesters. There are a required number of competencies the intern must complete by the end of the 6th semester. Evaluation of the intern's positioning skills, equipment manipulation, and use of radiation protection, patient care and knowledge of image production is conducted by the Clinical Instructors, Clinical Coordinator, Program Director and qualified staff technologists. The breakdown of clinical credit is as follows: Semester I HSC 359 2 credits Semester II HSC 360 3 credits Semester III HSC 361 4 credits Semester IV HSC 459 3 credits Semester V HSC 460 3 credits Semester VI HSC 461 4 credits

HSC 461 - Radiography Clinical Education VI

4 Hour(s)

The clinical education is broken down into six semesters. There are a required number of competencies the intern must complete by the end of the 6th semester. Evaluation of the intern's positioning skills, equipment manipulation, and use of radiation protection, patient care and knowledge of image production is conducted by the Clinical Instructors, Clinical Coordinator, Program Director and qualified staff technologists. The breakdown of clinical credit is as follows: Semester I HSC 359 2 credits Semester II HSC 360 3 credits Semester III HSC 361 4 credits Semester IV HSC 459 3 credits Semester V HSC 460 3 credits Semester VI HSC 461 4 credits

HSC 462 - Professional Development

2 Hour(s)

This is a two-credit course that serves as an overview of the entire program. This course will prepare the intern for the American Registry of Radiologic Technologists. Course will also include study of the evolution of modern health care systems and professional organizations in Radiology. Evaluation will be on the basis of mock registry examinations.

HSC 470 - Vascular Sonography I

3 Hour(s)

This course focuses on the physical principles relating to the vascular system, normal gross, relational, cross-sectional and sonographic anatomy of the carotid. Mechanisms of disease, unique to the vascular system, as well as the relationship between cardiovascular disease and the health of other organ systems will be discussed. Correlation of laboratory findings and etiologies of disease will be covered. Doppler principles and vascular hemodynamics are presented.

HSC 471 - Vascular Sonography II

3 Hour(s)

This course focuses on the normal gross, relational, cross-sectional and sonographic anatomy of the vascular system to include intracranial vessels, lower and upper extremity venous and arterial systems. Mechanisms of disease unique to the vascular system, as well as the relationship between cardiovascular disease and the health of other organ systems will be discussed. Correlation of laboratory findings and etiologies of disease will be covered. Doppler principles and vascular hemodynamics are presented. Various vascular scanning techniques will be discussed.

HSC 472 - Seminar in Professional Development

3 Hour(s)

The main objective is for the student to apply the academic and clinical knowledge used in this program to develop a senior project. This course is designed to showcase the student's ever evolving knowledge in sonography. The senior project consists of two parts: an in-depth written paper and oral presentation to one's peers. Preparation for the sonography boards and professional review: The main objective is to provide the student with the opportunity to improve test-taking skills in preparation for the examination of the American Registry for Diagnostic Medical Sonography. Job-hunting, interview skills and resume writing will provide the student with skills needed when seeking employment. An overview of professional behavior and standards will be reviewed at this time.

HSC 473 - Clinical Education IV

3 Hour(s)

Students are scheduled for clinical practicum at participating clinical education centers. Students progress in competence and ability on an individual basis and within the guidelines set forth by program faculty. Students are routinely evaluated on professional growth, personal interactions, and technical ability. A predetermined number of competencies specific to each learning concentration must be achieved throughout the duration of the program. Clinical experience rotations include abdominal imaging, OB/GYN, transthoracic cardiac imaging and vascular technology. Sonographic technique is also practiced during routinely schedule scan lab sessions, which are conducted by the program faculty.

HSC 474 - Clinical Education V

3 Hour(s)

The clinical component of our program allows students to rotate through all aspects of general and vascular sonography. Student's progress in competence and ability on an individual basis and within the guidelines set forth by program faculty. A total of 19 competencies must be achieved during the duration of the program. This course focuses on the mastery of all previously learned concentrations. Scan labs are no longer administered. Students should demonstrate the ability to perform at a level that does not require direct supervision.

HSC 475 - Clinical Education VI

3 Hour(s)

Preliminary competencies and clinical competencies are completed by this semester. Students who fail to complete the clinical competencies by the end of this semester will not be able to graduate. Clinical instructors will evaluate the student's performance by reviewing finished sonograms (or required series of sonographic images) produced by the student. All clinical evaluations and paperwork is completed on-line through E*Value and is submitted at the mid- and end-points of each clinical rotation. Clinical instructors will observe the student during each scanning procedure undertaken at the facility. Students will successfully complete all remaining clinical competency examinations, under the supervision of the clinical instructors, prior to graduation. The clinical competencies will be assigned a grade by the Clinical Education Coordinator/dedicated cardiac sonographer. Clinical experience rotations will include pediatric echocardiographic examinations and adult echocardiography pathology examinations. Faculty assesses each student during scanning labs offered with each didactic unit taught this semester. After completion of introductory scan labs and didactic material, students perform their preliminary competencies. Clinical instructors will evaluate the student's performance by reviewing finished sonograms (or required series of sonographic images) produced by the student. All clinical evaluations and paperwork is completed on-line through E*Value and is submitted at the mid- and end-points of each clinical rotation.

HSC 476 - Seminar in Education and Management

3 Hour(s)

This course will discuss theories and techniques of health care management, education, and research. Management strategies and concepts will be discussed and real-life case studies will be analyzed. Education theories and techniques as they specifically pertain to teaching in the allied health arena will be covered. Research methodology, basic research techniques and the unique role of the sonographer in research projects will be discussed. Problem solving strategies for scenarios in all three areas will be

outlined. Areas of overlap in management and education will be discussed. Students will choose management, education or research as an area for their final project and be assigned to a mentor within their chosen area, from the health care community. Students will work on their final projects under the direction and supervision of their mentors and the instructor. Students will be responsible for participating in weekly online and in-class discussions on topics covered in the assigned readings, for their particular area of interest.

Prerequisite(s): Acceptance to the DMS hospital phase

HSC 495 - Research in Health Science

1-4 Hour(s)

This course provides an opportunity for interested and highly motivated students to pursue research under the supervision of a Health Sciences (HS) faculty member. Students will develop sufficient mastery of a research system of interest to allow them to acquire, interpret and present data appropriate for the resolution of a specific research question.

FA, SP

Prerequisite(s): Sophomore standing and instructor consent.

HSC 499 - Health and Human Experience Capstone

1 Hour(s)

Faculty members in Health and the Human Experience believe that a graduating senior intending to work as a health professional should have knowledge of the various contexts of religious and philosophical values, interpersonal and sociological issues, and anatomy and physiology knowledge. This course asks students to integrate the knowledge of several disciplines and apply this synthesis to discussion of current health problems and policies. Students will also complete their minor portfolio as a part of this one-credit course.

SP

Prerequisite(s): Enrolled in final semester

Leadership

LEA 190 - Leadership and Personal Effectiveness

4 Hour(s)

Personal leadership represents a passionate desire to take charge of your life and is characterized by the strong values that become your moral compass, providing direction to your actions and behaviors. In this class, you will develop strategies to increase your individual effectiveness as you discover your unique purpose and initiate a personal vision to guide your life, and learn principle-centered approaches for solving problems, how to be a more effective communicator and listener, time management skills, how to set and achieve challenging goals and principles that help you adapt to change.

FA only

LEA 302 - Leadership Theory and Practice

4 Hour(s)

This course facilitates development of the student's capacity to become an effective leader in a business, public/government organization, or nonprofit agency. Through an examination of various approaches to leadership, students identify key principles, competencies, and qualities characteristic of effective leaders and integrate these concepts into a personal leadership style.

FA only

LEA 499 - Leading Change

4 Hour(s)

. This course integrates prior academic experiences and provides students with an experimental, comprehensive approach to leadership. The processes of developing a vision, strategic thinking and planning, communicating the vision, empowering employees, and appreciating differences are applied and utilized within an actual organizational setting as a means of integrating academic knowledge with leadership skills.

Spring only

Prerequisite(s): LEA 302

Math

MAT 098 - Pre-Algebra

4 Hour(s)

Intended for students who need an intensive review of high school Algebra I, content includes basic arithmetic, algebra, and geometry with an emphasis on study skills. Credits earned in this course do not count toward the 128 credits needed for graduation.

FA

Prerequisite(s): placement

MAT 101 - Intermediate Algebra

4 Hour(s)

Topics include number systems, linear equations and inequalities, introduction to functions and their graphs, systems of linear equations, polynomials, rational expressions and equations, rational exponents and radicals, and an introduction to quadratic equations and their graphs. This course is the prerequisite to MAT 104, MAT 106, MAT 130, and CMP 112.

FA, SP

Prerequisite(s): MAT 098 or placement

MAT 104 - Foundations of Elementary Mathematics I

4 Hour(s)

An introduction to problem solving, sets, number theory, numeration systems, and the structure of the real number system. Course material will be presented in a manner consistent with the NCTM Principles and Standards for School Mathematics. Recommended for education students only.

FA, SP

Prerequisite(s): MAT 101 or placement

MAT 106 - Mathematics for the Liberal Arts

4 Hour(s)

This elementary course in contemporary mathematics introduces the Bachelor of Arts student to the usefulness of mathematics. Real current-day problems are presented along with some of the mathematics techniques which have been used to solve them. Problems discussed will involve such topics as 'the traveling salesman problem,' exponential growth, voting systems, analysis of arguments and fractal geometry.

FA, SP, SU

Prerequisite(s): MAT 101 or placement

MAT 130 - Elementary Functions

4 Hour(s)

A study of polynomial, radical, exponential, logarithmic, and trigonometric functions designed to prepare students for MAT 140 or MAT 160

FA, SP

Prerequisite(s): MAT 101 or placement.

MAT 140 - Calculus and Its Applications

4 Hour(s)

A compact version of Calculus I, II stressing problem-solving techniques and applications. Designed for students who need only one semester of calculus. Numerous examples are presented from accounting, biology, business, economics, and other fields. May not be taken for credit by those who have completed MAT 160.

FA, SP, SU

Prerequisite(s): MAT 130 or placement

MAT 160 - Calculus I

4 Hour(s)

A brief review of inequalities, functions and plane analytic geometry; limits and continuity; the derivative and the differential; applications of differentiation; L'Hospital's Rule; introduction to the Riemann integral. Includes differentiation of logarithmic and exponential functions, and indeterminate forms. History of selected topics is studied.

Four hours of lecture and one hour of laboratory/recitation.

FA, SP

Prerequisite(s): MAT 130 or placement

MAT 160L - Calculus I - Laboratory

0 Hour(s)

Laboratory component for MAT 160.

MAT 161 - Calculus II

4 Hour(s)

Applications of the Riemann integral; calculus of the natural logarithm and exponential functions; formal techniques of integration; improper integrals; series and sequences. History of selected topics is studied.

Four hours of lecture and one hour of laboratory/recitation.

FA, SP

Prerequisite(s): MAT 160 or placement

MAT 161L - Calculus II - Laboratory

0 Hour(s)

Laboratory component for MAT 161.

MAT 201 - Foundations of Elementary Mathematics II

4 Hour(s)

A study of introductory geometry, measurement, algebra, coordinate and transformation geometry. Students will also be introduced to geometry computer software. Designed for the elementary education major.

FA, SP

Prerequisite(s): MAT 104

MAT 205 - Discrete Mathematics

4 Hour(s)

A study of set theory, propositional calculus, algorithms, relations, functions, combinatorics, recursion, discrete graphs, trees, automata. May not be taken for credit by those who have completed MAT 206. Intended for Computer Science majors only.

SP

Prerequisite(s): CSC 226, MAT 140 or MAT 160

MAT 206 - Transition to Adv Mathematics

4 Hour(s)

An introduction to fundamental concepts, structures and style of mathematics. Core topics are logic, sets, mathematical induction, relations, functions and graph theory. Special topics may include number theory, cardinality, or the construction of the real numbers. Special emphasis will be placed on developing and communicating mathematical arguments.

SP

Prerequisite(s): MAT 140 or MAT 160 May not be taken for credit by those who have completed MAT 205

MAT 207 - Calculus III

4 Hour(s)

Vectors in the plane and in space, solid analytic geometry; calculus of functions of two variables; partial derivatives; divergence and gradient; multiple integrals, vector fields, line integrals, and surface integrals, Green's Theorem, Stoke's Theorem, Divergence Theorem. History of selected topics is studied.

FA

Prerequisite(s): MAT 161 or placement

MAT 208 - Linear Algebra

4 Hour(s)

Vector spaces; linear transformations and matrices; systems of linear equations; applications.

SP

Prerequisite(s): MAT 161 or MAT 206

MAT 215 - Engineering Mathematics I

4 Hour(s)

An introduction probability and statistics as applied in engineering. Topics to be covered include descriptive statistics, probability distributions, confidence intervals, hypothesis testing, quality control, acceptance sampling, goodness of fit, nonparametric tests, and regression. May be used toward the mathematics minor, but not the mathematics major.

FA odd years

Prerequisite(s): MAT 207, or concurrent registration in MAT 207

MAT 216 - Engineering Mathematics II

4 Hour(s)

An introduction linear algebra and differential equations as applied in engineering. Topics to be covered include matrix algebra, linear independence and span, eigenvalues and eigenvectors, first-order ODE's, linear ODE's, series solutions, numerical methods, and Laplace Transforms. May be used toward the mathematics minor, but not the mathematics major.

FA even years

Prerequisite(s): MAT 207, or concurrent registration in MAT 207

MAT 305 - Modern Geometry

4 Hour(s)

A study of elementary geometry beginning with Euclidean axioms and properties. Affine geometry, hyperbolic geometry, and projective geometry are among the non-Euclidean geometries studied. A history of selected topics is studied.

SP

Prerequisite(s): MAT 206

MAT 309 - Differential Equations

4 Hour(s)

An introduction to the theory and solution of ordinary differential equations and their applications; power series solution; introduction to numerical methods; and other topics.

FA, even

Prerequisite(s): MAT 161

Corequisite: MAT 207

MAT 312 - Theory of Probability & Statistics

4 Hour(s)

An introduction to the mathematical theory of probability and statistics. Topics include: sample spaces; probability distribution functions; regression and correlation; hypothesis testing. History of selected topics is studied. May not be taken for credit by those who have completed ASC 302.

FA odd years

Corequisite: MAT 207

MAT 320 - Abstract Algebra

4 Hour(s)

An introduction to modern abstract algebra to include topics in the theory of groups, rings and fields. Required of all mathematics

majors. History of selected topics is studied.

FA odd years

Prerequisite(s): MAT 206 and MAT 208

MAT 324 - Numerical Analysis

4 Hour(s)

Introduction to the numerical methods and algorithms fundamental to mathematical and scientific analysis. Error analysis and efficient programming techniques are stressed. Includes solving equations, linear and nonlinear systems, curve fitting, function approximation, interpolation, differentiation, integration and numerical solutions to differential equations.

SP even years

Prerequisite(s): MAT 161 and CSC 110;

Corequisite: MAT 208

MAT 350 - Mathematics Seminar

4 Hour(s)

Mathematics Seminar topics vary by year. The course meets concurrent with MAT 450, the Capstone Experience. The course is designed to give students exposure to the Capstone Experience and to give all mathematics students the opportunity to increase their breadth of study.

SP

Prerequisite(s): MAT 206 or instructor approval

MAT 380 - Internship in Mathematics

1 - 4 Hour(s)

The internship in Mathematics is designed to give students an opportunity to experience and better understand career opportunities in Mathematics outside the realm of education, as well as to pursue a particular area of interest in greater depth than can typically be accomplished in traditional course settings. The long-term goals and day-to-day responsibilities are collaboratively developed by the internship mentor and the student intern. Students may use up to two distinct internships for a maximum of 8 elective credits toward their degrees.

MAT 391 - Adv Topics in Mathematics

2 - 4 Hour(s)

These courses are designed to meet the special needs of students who have completed the prescribed courses for a major and wish to extend their study in specific areas. Students planning on graduate study should take courses in topology and other appropriate topics. Students interested in actuarial science should arrange for additional study in probability and statistics. Courses in applied mathematics can also be arranged. These courses may not be taken in lieu of courses specified for the major or minor.

FA, SP, SU with instructor consent

Prerequisite(s): Junior or senior standing, approval of the divisional dean and consent of the instructor

MAT 409 - Mathematical Analysis

4 Hour(s)

The study of theory and applications of analysis on the real line. Limits; continuity; differentiation; sequences and series of functions; integration.

FA even years

Prerequisite(s): MAT 161 and MAT 206

MAT 412 - Mathematical Statistics

4 Hour(s)

This course develops the mathematical underpinnings of statistics. Methods of estimation will include moments, percentile matching, maximum likelihood, bias, variance, consistency, efficiency and UMVUE. Statistical inference methods will include confidence intervals and hypothesis testing, with standard tests on means, variances, and categorical data. Additional topics will include the Neyman-Pearson lemma, significance and power, the likelihood ratio test, and information criteria.

FA, even years.

Prerequisite(s): ASC 302 or MAT 312

MAT 450 - Mathematics Senior Capstone

4 Hour(s)

Mathematics Seminar topics vary by year. The course meets concurrent with MAT 350, the Capstone Experience. The course is designed to give students exposure to the Capstone Experience and to give all mathematics students the opportunity to increase their breadth of study.

SP

Prerequisite(s): MAT 206 or instructor approval

MAT 491 - Adv Topics in Mathematics

2 - 4 Hour(s)

These courses are designed to meet the special needs of students who have completed the prescribed courses for a major and wish to extend their study in specific areas. Students planning on graduate study should take courses in topology and other appropriate topics. Students interested in actuarial science should arrange for additional study in probability and statistics. Courses in applied mathematics can also be arranged. These courses may not be taken in lieu of courses specified for the major or minor.

FA, SP, SU with instructor consent

Prerequisite(s): Junior or senior standing, approval of the divisional dean and consent of the instructor

Music

MUS 105 - Class Piano I

1 Hour(s)

Fundamental piano skills to establish basic piano proficiency. (Does not count toward major or minor.)

May be taken a maximum of four semesters.

FA

MUS 106 - Class Piano II

1 Hour(s)

Fundamental piano skills to establish basic piano proficiency. (Does not count toward major or minor.)

May be taken a maximum of four semesters.

SP

Prerequisite(s): need consent of instructor

MUS 107 - Class Piano III

1 Hour(s)

Fundamental piano skills to establish basic piano proficiency. (Does not count toward major or minor.)

May be taken a maximum of four semesters.

FA

Prerequisite(s): need consent of instructor

MUS 108 - Class Piano IV

1 Hour(s)

Fundamental piano skills to establish basic piano proficiency. (Does not count toward major or minor.)

May be taken a maximum of four semesters.

SP

Prerequisite(s): MUS 106, MUS 107 and MUS 108 need consent of instructor.

MUS 111 - Music Theory I

3 Hour(s)

Training in the fundamental materials of music: pitch notation, common clefs, major and minor scales, common-practice rhythm and meters, intervals, simple diatonic melody, triads, and seventh chords.

FA

MUS 112 - Music Theory II

3 Hour(s)

Study of basic part-writing, harmonic progression, chord identification, figured bass, and Roman numeral analysis of diatonic common-practice music.

SP

Prerequisite(s): MUS 111

MUS 113 - Musicianship I

1 Hour(s)

These courses complement the Music Theory sequence: MUS 113 corresponds to MUS 111; MUS 114 corresponds to MUS 112; MUS 213 corresponds to MUS 211; and MUS 214 corresponds to MUS 212. The goal of these courses is to develop the aural

skills necessary for success in the performing or teaching fields of music. The writing of dictated rhythms, melodies, and harmonies, and the sight-singing of rhythms and melodies are the central activities of each courses and corequisites: the corresponding Music Theory course is a corequisite or for each Aural Skills course, and the Aural Skills courses must be taken in numerical order.

FA

Corequisite: Music Theory I, II, III or IV

MUS 114 - Musicianship II

1 Hour(s)

These courses complement the Music Theory sequence: MUS 113 corresponds to MUS 111; MUS 114 corresponds to MUS 112; MUS 213 corresponds to MUS 211; and MUS 214 corresponds to MUS 212. The goal of these courses is to develop the aural skills necessary for success in the performing or teaching fields of music. The writing of dictated rhythms, melodies, and harmonies, and the sight-singing of rhythms and melodies are the central activities of each course. s and corequisites: the corresponding Music Theory course is a corequisite or for each Aural Skills course, and the Aural Skills courses must be taken in numerical order

SP

Corequisite: Music Theory I, II, III or IV

MUS 117 - Class Voice

1 Hour(s)

Class lessons to learn basic vocal skills. May be taken a maximum of two semesters.

FA, even years

MUS 149 - Screen/Music: Film, Television, Video Games

4 Hour(s)

General Education F1

Investigates the relationship between music and screens of various kinds with a primary focus on the modern media of film, television, and video games. The course will also consider the nature of screens and the ways music interacts with other screened cultural products such as rood screens in gothic churches and the screen used in Indonesian shadow puppet theater.

FA

MUS 151 - History of Jazz

4 Hour(s)

General Education F1

Origins and evolution of jazz to the present, emphasizing various performance styles and improvisational techniques.

MUS 156 - Listening to Classical Music

4 Hour(s)

General Education F1

This course is intended as an introductory course and focuses on the development of perceptive listening skills and a broad understanding of Western concert literature.

MUS 157 - Beethoven

4 Hour(s)

Designed for the general student, the course examines the life, stylistic development and importance of Beethoven within the context of the times in which he lived.

SP, odd years

MUS 158 - Rock Music - Roots and History

4 Hour(s)

General Education F1

Designed for the general student, the objective of this course is to understand the origins, development, and significance of one of the most popular musical forms in the modern world.

MUS 159 - Electronic Music

4 Hour(s)

General Education F1

Students will learn the techniques and concepts of digital audio production with computers, including recording, editing, and song writing, culminating in the creation of an original professional-quality radio commercial.

MUS 161 - Violin

0 - 2 Hour(s)

FA, SP

MUS 162 - Viola

0 - 2 Hour(s)

FA, SP

MUS 163 - Cello

0 - 2 Hour(s)

FA, SP

MUS 164 - Bass

0 - 2 Hour(s)

FA, SP

MUS 165 - Guitar

0 - 2 Hour(s)
FA, SP

MUS 166 - Harp

0 - 2 Hour(s)
FA, SP

MUS 167 - Piano

0 - 2 Hour(s)
FA, SP

MUS 168 - Organ

0 - 2 Hour(s)
FA, SP

MUS 169 - Voice

0 - 2 Hour(s)
FA, SP

MUS 170 - Flute

0 - 2 Hour(s)
FA, SP

MUS 171 - Oboe

0 - 2 Hour(s)
FA, SP

MUS 172 - Clarinet

0 - 2 Hour(s)
FA, SP

MUS 173 - Bassoon

0 - 2 Hour(s)
FA, SP

MUS 174 - Saxophone

0 - 2 Hour(s)
FA, SP

MUS 175 - Horn

0 - 2 Hour(s)
FA, SP

MUS 176 - Trumpet

0 - 2 Hour(s)
FA, SP

MUS 177 - Trombone

0-2 Hour(s)
FA, SP

MUS 178 - Tuba

0 - 2 Hour(s)
FA, SP

MUS 179 - Percussion

0 - 2 Hour(s)
FA, SP

MUS 181 - Class Guitar

1 Hour(s)
This is the level of study for the absolute beginner as well as the self-taught guitarist who wishes to re-examine the fundamentals of guitar technique.

FA

MUS 182 - Introduction to Rhythmic Movement

1 Hour(s)
This introductory, experiential course is designed to provide students with fundamental knowledge of and an appreciation for the role of movement and body awareness. Basic movement models, concepts and terminology are introduced and applied. Contemporary cross-cultural rhythmic movement methods are presented and experienced.

SP

MUS 183 - Men's Chorus

0 - 1 Hour(s)
Carroll's only all-male vocal ensemble, Men's Chorus builds vocal technique, musicianship, and community through the rehearsal and performance of great choral and vocal literature.

FA, SP

MUS 185 - Concert Choir

0 - 1 Hour(s)

General Education F1

Open to students in all majors, the Concert Choir is a large, auditioned mixed ensemble that performs regularly throughout the year in the Carroll Choir's concert season, including the annual performances of Christmas at Carroll, and appears at university ceremonies such as Convocation and Baccalaureate.

FA, SP

Prerequisite(s): Placement audition and approval of conductor

MUS 186 - Chamber Singers

0 - 1 Hour(s)

The premier vocal ensemble at Carroll, Chamber Singers is comprised of selected members of the Concert Choir and performs repertoire that focuses on more virtuosic vocal chamber music.

FA, SP

Prerequisite(s): Placement audition and approval of conductor

MUS 187 - Women's Choir

0 - 1 Hour(s)

FA, SP

Prerequisite(s): Placement audition and approval of conductor

MUS 188 - Wind Ensemble

0 - 1 Hour(s)

General Education F1

The Wind Ensemble performs the finest of traditional as well as contemporary wind literature, and has been involved in the commissioning of several original works from esteemed composers.

Placement audition and approval of conductor.

FA, SP

MUS 189 - Jazz Ensemble

0 - 1 Hour(s)

Jazz Ensemble explores jazz style and improvisation through group listening, improvisation exercises, and small group playing in a variety of combinations. All instruments (including voice) are welcome, and the repertoire ranges from New Orleans jazz to straight-ahead swing, Latin jazz, and contemporary funk and rock.

Placement audition and approval of conductor.

FA, SP

MUS 190 - Chamber Music

0 - 1 Hour(s)

Section A-Brass, Section B-Strings, Section C-Flute Choir, Section D-Woodwinds, Section E-Piano, Section F-Handbell Choir.
Placement audition and approval of conductor.

Permission of conductor.
FA, SP

MUS 191 - Chamber Orchestra

0 - 1 Hour(s)

The Chamber Orchestra is comprised mostly of strings and complemented by woodwinds, brass, and timpani, as needed. Musicians come together to learn and properly perform the classical chamber orchestra repertoire.

placement audition and approval of conductor.

MUS 195 - Guitar Ensemble

0 - 1 Hour(s)

This course is designed for guitarists to play as part of a guitar ensemble. Students will be arranged into multiple configurations (duets, trios, quartets, etc.). Beginners are welcomed and will be incorporated into groups with more advanced guitarists. Repertoire will consist of both music written specifically for guitar ensemble and its various configurations and arrangements of music originally written for other instruments or groups of instruments.

MUS 196 - Marching Band

0 - 1 Hour(s)

This course is designed to give the student an enriching and diverse instrumental music education. This class provides a number of performance opportunities for the student in a variety of settings. The daily objective of the course is to foster and promote musical growth through the playing of an instrument by the student. As a member of the band program, group effort and cooperation is necessary to a successful program. Band is a skilled effort in which each student is expected to show technical and musical growth throughout this course.

FA, SP

MUS 211 - Music Theory III

3 Hour(s)

A continuation of MUS 112, this course presents chromatic harmony with particular emphasis on how it is used by composers in selected music literature.

FA

Prerequisite(s): MUS 112 and passing competency exam

MUS 212 - Music Theory IV

3 Hour(s)

Study of advanced chromatic harmony, post-tonal musical analysis, and large scale formal organization of solo, chamber, and orchestral works by common practice composers.

SP

Prerequisite(s): MUS 211 or consent of instructor

MUS 213 - Musicianship III

1 Hour(s)

These courses complement the Music Theory sequence: MUS 113 corresponds to MUS 111; MUS 114 corresponds to MUS 112; MUS 213 corresponds to MUS 211; and MUS 214 corresponds to MUS 212. The goal of these courses is to develop the aural skills necessary for success in the performing or teaching fields of music. The writing of dictated rhythms, melodies, and harmonies, and the sight-singing of rhythms and melodies are the central activities of each course.

Corequisite: Music Theory I, II, III or IV

Pre-or Co-requisite: the corresponding Music Theory course is a corequisite or prerequisite for each Aural Skills course, and the Aural Skills courses must be taken in numerical order.

MUS 214 - Musicianship IV

1 Hour(s)

These courses complement the Music Theory sequence: MUS 113 corresponds to MUS 111; MUS 114 corresponds to MUS 112; MUS 213 corresponds to MUS 211; and MUS 214 corresponds to MUS 212. The goal of these courses is to develop the aural skills necessary for success in the performing or teaching fields of music. The writing of dictated rhythms, melodies, and harmonies, and the sight-singing of rhythms and melodies are the central activities of each course.

Corequisite: Music Theory I, II, III or IV

Pre-or Co-requisite: the corresponding Music Theory course is a corequisite or prerequisite for each Aural Skills course, and the Aural Skills courses must be taken in numerical order.

MUS 215 - Songwriting in the Digital Age

1 Hour(s)

This course instructs students in the technical and artistic aspects of develop original melodies, accompaniments, and short pieces extemporaneously in a variety of moods and styles, vocally and instrumentally. Students will learn to write lyrics, set the text to music, and developing accompaniments for a variety of ensembles, technical levels, styles, and moods.

SP

Corequisite: MUS 214

MUS 220 - Class Guitar 2

1 Hour(s)

This course builds on materials covered in Class Guitar 1, and is designed to improve the students' guitar technique, as well as music reading and accompanying skills. It will cover the different chord types and shapes, applying them in songs from a variety of genres from popular music (classic and contemporary) to folk, to music from film. Some basic classical music repertoire will also be covered, with the purpose of developing and improving techniques that can be used for finger-style accompaniment. Students will regularly perform in front of the class as part of their weekly assignments.

SP

Prerequisite(s): MUS 181 or consent of instructor

MUS 232 - Art of the Machine: Creative Computing from Algorithm to AI

4 Hour(s)

General Education F1

This course will explore algorithmic art, which is art created according to a set of predetermined rules or parameters. We will start with the geometric complexity of Islamic art, and the modernist works of Sol Lewitt. Then we'll explore specific algorithms from iteration to recursion, Markov Chains, Recurrent Neural Networks, and Generative Adversarial Networks at the cutting

edge of research in to artificial intelligence. At each stage, we will be creating art works which explore and reflect the computing concepts we are studying. Along the way, we will pause to reflect on the nature of art: can a computer create real art? Can it make us feel something? What happens when the machine becomes smarter than we are?

FA alternate years

MUS 251 - String Methods

1 Hour(s)

Development of basic performance skills, maintenance methods, and materials for the teaching of strings in the public schools. Violin, viola, cello, and bass will be covered.

Every third year beginning in FA10

MUS 252 - Percussion Methods

1 Hour(s)

Development of basic performance skills, maintenance methods, and materials for the teaching of percussion in the public schools. Snare and bass drums, timpani, drum set, all mallet instruments and auxiliary percussion will be covered.

Every third year beginning in SP11

MUS 253 - Woodwind Methods

1 Hour(s)

This course is designed to provide students with the skills necessary to teach the woodwind instruments in large and small group settings in the public schools. Students will learn to perform on each of the major woodwind instruments. Instruments will be provided for students' use during the course.

FA, every third year

MUS 255 - Brass Methods

1 Hour(s)

This two-course sequence is designed to provide students with the skills necessary to teach the brass instruments in large and small group settings in the public schools. Students will learn to perform on each of the major brass instruments. Instruments will be provided for students' use during the course.

FA, every third year

MUS 260 - Music as Culture

4 Hour(s)

General Education F2 and CCD

Explores the role of music in human life, emphasizing the ways people across a variety of cultures use music in identity formation, the market, politics, and ritual.

SP

Prerequisite(s): ENG 170

MUS 291 - Topics in Music

2 - 4 Hour(s)

MUS 298 - Independent Study in Music

1 - 4 Hour(s)

Prerequisite(s): Junior standing, approval of the divisional dean and consent of instructor

MUS 303 - Conducting I

2 Hour(s)

Fundamentals of conducting including baton technique, score reading and rehearsal procedures.

SP, even years

Prerequisite(s): MUS 112 and MUS 114

MUS 304 - Conducting II

2 Hour(s)

This course continues topics from MUS 303.

FA, even years

Prerequisite(s): MUS 303

MUS 307 - Practical Keyboard Harmony

1 Hour(s)

Practical keyboard facility, including harmonic progressions, modulation, figured bass realization, transposition and score reading.

FA

Prerequisite(s): MUS 211

MUS 311 - Music History I - Classical Antiquity to the Classical Period

4 Hour(s)

Surveys Western music from the ancient world to ca. 1800, with particular emphasis on music literature and identification of stylistic characteristics of the periods covered. Study of the social, philosophical, and political background in which the music was created will also be a focus of the course.

Prerequisite(s): Ability to read music required MUS 260 or consent of the instructor

MUS 312 - Music History II - Nineteenth Century to the Present

4 Hour(s)

Surveys Western music from 1800 to the present with particular emphasis on music literature and identification of stylistic characteristics the periods covered. Study of the social, philosophical, and political background in which the music was created will also be a focus of the course.

Prerequisite(s): Ability to read music MUS 311 or consent of the instructor

MUS 323 - Diction - German and English

1 Hour(s)

Develops a basic understanding of the International Phonetic Alphabet as applied to the mastery of foreign language pronunciation for singing. MUS 323 is English and German diction and is a for MUS 324

FA, even years

Prerequisite(s): 323 is English and German diction and is a prerequisite for MUS 324; MUS 324 is French and Italian diction.

MUS 324 - Diction - French and Italian

1 Hour(s)

Develops a basic understanding of the International Phonetic Alphabet as applied to the mastery of foreign language pronunciation for singing. MUS 324 is French and Italian diction.

SP, odd years

MUS 353 - Secondary Methods

2 Hour(s)

This course presents methods and materials relevant to teaching instrumental, choral, or general music in grades K-12, including historical and contemporary philosophies of music education, rehearsal techniques, classroom management, and lesson planning.

Prerequisite(s): admission to the Teacher Education Program

MUS 357 - Choral Literature & Performance Practice

2 Hour(s)

This course provides students with broad knowledge of representative repertoire for all levels and sizes of ensembles from the 5th-grade choir to the professional ensemble. The course will introduce students to a viable philosophy of music and establish why the choice of quality repertoire in educational settings is of critical importance to the success of music teaching. Traditional interpretations of core repertoire will be studied through various recordings.

SP, odd years

Prerequisite(s): MUS 211

MUS 359 - Orff/Kodaly Methods

4 Hour(s)

This is a course designed to increase each student's knowledge and understanding of music teaching materials, methodologies, and techniques of teaching general music at the elementary school level using the methodologies of Orff and Kodaly. Systems of teaching developed by others, such as Dalcroze, will be studied and put into practice as well.

FA, odd years

Prerequisite(s): MUS 354

MUS 366 - Voice Pedagogy

2 Hour(s)

The study of voice production and how to recognize and solve vocal problems. Students have the opportunity to teach voice lessons under the guidance of the instructor.

FA, odd years

MUS 391 - Topics in Music

2 - 4 Hour(s)

MUS 398 - Independent Study in Music

1 - 4 Hour(s)

Prerequisite(s): Junior standing, approval of the divisional dean and consent of instructor

MUS 430 - Vocal Literature

2 Hour(s)

A study of literature available for the voice, including the art song and oratorio and operatic literature beginning with the Baroque period.

SP, even years

Prerequisite(s): MUS 211

MUS 470 - Junior Recital

0 Hour(s)

This course is taken in conjunction with applied lessons in the semester in which the student is presenting a junior (MUS 470) or senior (MUS 471) recital, resulting in an applied lesson worth three credits for those semesters. Additional rehearsals outside of regular lessons are required.

An applied music fee will be charged in addition to full tuition for this course.

MUS 471 - Senior Recital

0 Hour(s)

This course is taken in conjunction with applied lessons in the semester in which the student is presenting a junior (MUS 470) or senior (MUS 471) recital, resulting in an applied lesson worth three credits for those semesters. Additional rehearsals outside of regular lessons are required.

An applied music fee will be charged in addition to full tuition for this course.

MUS 499 - Music Capstone

2 Hour(s)

During the semester in which the senior recital is presented, students will enroll in 499 in lieu of the regular Applied Music number. Students will work with the applied teacher in the presentation of a public recital. This will include research and the development of the ability to communicate clearly in written program notes. Further, demonstration of a high level of mastery of the voice/instrument is expected. Periodic group meetings with all capstone students are required.

Regular applied music fee will be charged.

Prerequisite(s): senior standing
Corequisite: MUS 471

Music Therapy

MTY 101 - Introduction to Music Therapy

2 Hour(s)

This course provides an introduction to the field of Music Therapy encompassing theoretical and historical review, clinical applications, professional requirements, case studies and research and development, and implications for future.

MTY 180 - Music Therapy Practicum

1 or 2 Hour(s)

This course is designed to provide students continued in-depth exposure and training in the culture and techniques of music therapy. Through various lectures, presentations, simulations, and instructor-directed actual clinical experiences, the students will start to learn and practice the process of assessment and application of music therapy procedures. Section A is 1 credit, section B is 2 credits.

FA, SP

Prerequisite(s): MTY 101

MTY 201 - Music Therapy Methods

2 Hour(s)

An introduction to basic techniques used in music therapy settings. Students craft and facilitate sample music therapy activities, including hello and goodbye songs, songwriting with clients, percussion bands, receptive movement, musical storytelling, and music games.

FA

Prerequisite(s): MTY 101 and admission to the Music Therapy Program

MTY 251 - Psychology of Music

3 Hour(s)

This course examines the cognitive, social, and biological basis of our ability to perceive, remember, appreciate and produce music. We will examine selected empirical studies and review papers encompassing the evolutionary, developmental, social/personality, and cognitive neuroscience approaches to understanding musical practice. This course also includes lab assignments involving listening exercises, data collection and analyses.

SP

Prerequisite(s): PSY 101, CMP 112, MUS 111

MTY 301 - Therapeutic Relationship in Music Therapy

2 Hour(s)

This course will deepen students' understanding of their role as therapist, and identify appropriate and effective techniques to foster a supportive music therapy environment. A variety of approaches will be explored.

MTY 304 - Influence of Music on Behavior

3 Hour(s)

This course develops an objective, scientifically sound explanation for the therapeutic effects of music regularly observed by music therapists in professional practice. Students will learn research terminology and basic compositional format used in writing research literature. They will develop knowledge of the purpose, prevailing methodology, data analysis techniques, and ways to interpret results reported in published historical, quantitative and qualitative research.

SP

Prerequisite(s): MTY 101, MTY 251

MTY 382 - Music Therapy Activities for Specific Populations

2 Hour(s)

Learn how to select, adapt, and use musical instruments and other equipment to elicit participation from children and adult clients including those having disabilities due to aging.

SP

Prerequisite(s): MTY 101, MTY 180

MTY 401 - Ethics and Cultural Awareness

2 Hour(s)

This course provides students with a fundamental appreciation for the importance of multicultural awareness in the therapy setting. Discussion of general ethics in the therapist role, as well as cultivating a method of practice that respects client differences. Exposure to music traditions from a variety of cultures.

Prerequisite(s): senior status and acceptance in the Music Therapy Program

MTY 402 - The Music Therapy Professional

1 Hour(s)

Preparation for music therapy internship and beyond. Addresses methods of treatment planning and documentation in specialized settings, professional responsibilities, and employment concerns.

SP

Prerequisite(s): MTY 401 and good standing in the Music Therapy Program

MTY 480 - Music Therapy Internship

1 Hour(s)

The Music Therapy Internship is the culminating, in-depth clinical training at the professional level at an AMTA-approved site under continuous, qualified supervision by a credentialed music therapist.

SU

Prerequisite(s): Must be enrolled in the Music Therapy Program and in good standing at the senior level ANP 130, PSY 101, PSY 201, PSY 221, CMP 112, and at least 7 credits of MTY 180 Student must have passed Piano Proficiency, Guitar Proficiency, and Voice Proficiency exams

Neurodiagnostic Technology

NDT 275 - Neuroanatomy and Physiology

4 Hour(s)

This course advances the concepts of basic anatomy and physiology with an emphasis in neuroanatomy, neurophysiology and related pathophysiology. The course prepares students for advanced education in neurodiagnostic technology and other related fields.

SP, SU

Prerequisite(s): ANP 130 , ANP 140

NDT 301 - Neurodiagnostic Basic

3 Hour(s)

This course orients the student to safety considerations within the recording environments and overall patient care. Students are introduced to a patient centered evaluation considering the importance patient/family communication and the need to assess individual situations when designing the assessment processes. Students are introduced to the 10-20/10-10 system and appropriate applications of monitoring electrodes

FA

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 302 - Neurodiagnostic Neurological Disease

3 Hour(s)

Students are introduced to the pathophysiology of common neurological disease, congenital defects, cancers, tumors, medication impact, and its relationship to the neurodiagnostic field.

FA

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 303 - Neurodiagnostic Instrumentation

3 Hour(s)

Students are introduced to typical and evolving technologies/instrumentation used in neurodiagnostics. Student will know, understand and be able modify EEG, EP and IONM equipment.

FA

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 304 - Neurodiagnostic Intro to PSG

3 Hour(s)

This course teaches students to understand and perform a basic polysomnography (PSG). Students will be introduced to the basic concepts of setting up a patient and running a study including a full stimulation during a case scenario.

FA

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 305 - Neurodiagnostic Recording Standards

3 Hour(s)

Students are introduced to the ACNS guidelines and procedures for electroencephalogram (EEG), nerve conduction velocity (NCV), visual evoked response (VEP), brain auditory evoked response (BAER), intraoperative neuromonitoring (IONM),

electromyography (EMG), transcranial doppler (TCD), electroretinogram (ERG), epilepsy monitoring unit (EMU) and long term monitoring (LTM) . Protocol modifications are studied across the lifespan and pathologic conditions.

SP

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 306 - Neurodiagnostic Pattern Recognition of Electroencephalograms

3 Hour(s)

Students will demonstrate advanced knowledge in the recognition of electroencephalogram patterns based on the patient's history, medications, symptoms, pathology and recordings.

SP

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 307 - Neurodiagnostic Intro LTM/EP/IONM/NCV

3 Hour(s)

Introduction to the basic concepts of long term monitoring (LTM), evoked potential (EP), intraoperative neuromonitoring (IONM) and nerve conduction velocity (NCV). Student will perform basic procedure and setup of LTM, IONM and NCV.

SP

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 308 - Neurodiagnostic Board Prep

3 Hour(s)

This course advances the knowledge of electroencephalogram (EEG) through application and synthesis of material from the NDT301-NDT307 courses. The course also prepares the student for EEG board certification exam.

SP

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 380 - Neurodiagnostic Internship I (EEG)

5 Hour(s)

This is the first of a four-course internship sequence that prepares the student for future independent EEG practice with clinical populations. The student is supervised by a Registered Electroencephalogram Technologist in the clinical setting.

FA

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 390 - Neurodiagnostic Internship II (EEG)

6 Hour(s)

This is the second of a four-course internship sequence that prepares the student for future independent EEG practice with clinical populations. The student is supervised by a Registered Electroencephalogram Technologist in the clinical setting.

SP

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 401 - Neurodiagnostic Evoked Potential

3 Hour(s)

Students will demonstrate a basic understanding of evoked potentials and the correlation with neurodiagnostics assessment, patient care and outcomes.

FA

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 402 - Neurodiagnostic Evoked Potential Board Prep

3 Hour(s)

Advanced understanding, application and evaluation of evoked potentials and the correlation with neurodiagnostics assessment, patient care and outcome. Prepare the student for ABRET EP board certification exam.

FA

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 440 - Neurodiagnostic IONM I

3 Hour(s)

This is the first in a four-course series preparing the student for entry-level competence in intraoperative neuromonitoring (IONM). The course is an introduction to IONM, surgical suite etiquette and patient privacy/HIPPA compliance.

FA

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 450 - Neurodiagnostic IONM II

3 Hour(s)

This is the second in a four-course series preparing the student for entry-level competence in intraoperative neuromonitoring (IONM). This course builds on and advances the knowledge and application of IONM, and correlates with neurodiagnostic assessment, patient care and outcome. Students will practice IONM testes in a simulated environment.

SP

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 460 - Neurodiagnostic IONM III

3 Hour(s)

This is the third in a four-course series preparing the student for entry-level competence in intraoperative neuromonitoring (IONM). Advances knowledge of IONM and its correlation with neurodiagnostic assessment and patient care outcomes. The students will be performing studies on clinical population in the presence of a Certified Neuro Intraoperative Monitoring technologist (CNIM).

SP

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 470 - Neurodiagnostic IONM IV

3 Hour(s)

This is the fourth of a four-course series preparing the student for entry-level competence in intraoperative neuromonitoring (IONM). The course includes American Clinical Neurophysiology Society (ACNS) guidelines, ABRET Neurodiagnostic Credentialing & Accreditation information, HIPPA and OSHA standards. This integrates all aspects of the four-course sequence and prepares the student for the board certification exam to become a Certified Neuro Intraoperative Monitoring technologist (CNIM).

SP

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

NDT 480 - Neurodiagnostic Internship III (IONM)

5 Hour(s)

This is the third of a four-course internship sequence that prepares the student for future independent IONM practice with clinical populations. The student is oriented and supervised by a Certified Neuro Intraoperative Monitoring technologist (CNIM) in the basic application of IONM procedures in the surgical suite.

FA

Corequisite: Admittance to the professional phase of the Neurodiagnostic Program.

NDT 490 - Neurodiagnostic Internship IV (IONM)

6 Hour(s)

This is the fourth of a four-course internship sequence that prepares the student for future independent IONM practice with clinical populations. The student is supervised by a Certified Neuro Intraoperative Monitoring technologist (CNIM) in the full IONM procedure including chart review, application, monitoring and surgical suite personnel (CNIM, MD, RN, Neurosurgeon, Anesthesiologist, etc.).

SP

Prerequisite(s): Admittance to the professional phase of the Neurodiagnostic Program.

New Cultural Experiences

NCE 207 - Practicing Intercultural Communication in Thailand

4 Hour(s)

Magical, mystical, modern Thailand. Studying and visiting Thailand offers a unique opportunity-you will come to understand your own culture in a new way through your journey through this beautiful and fascinating land. Intercultural communication is influenced by societal norms and values, history, arts, and the media. We will study intercultural communication in Bangkok, Chiang Mai, the Elephant Nature Reserve, and Phuket. This class may be substituted for COM 207: Intercultural Communication requirements. Students who have already taken COM 207 may also apply and count the class as an elective or as a 300-level Communication class. This class may count as a student's CCE and CCD requirement in the General Education program.

Offered FA Semester every three years with January travel next offering in FA16

NCE 300 - New Cultural Experiences Program

4 Hour(s)

NCE 302 - Russia & Central Asia - History, Environment, and Geography Halfway Around the World

4 Hour(s)

This course is designed to provide students the opportunity to study and have firsthand experience in Russia and Central Asia. Students will have a better understanding of the region's culture, history, geography and environment. We visit St. Petersburg and Moscow in Russia and Kokshetau, Kazakstan and their surrounding regions. We study the interrelationship of historical events, cultural characteristics and environmental quality. We will be working with St. Petersburg University, Moscow State University, Kokshetau State University, the Peace Corps, and the Waukesha Area Sister City Association.

SP odd years, travel in summer

NCE 305 - Reefs, Rainforests and Ruins of Belize

4 Hour(s)

This course focuses on tropical reef biology and rainforest ecology. While in Belize, students explore the world's second largest barrier reef and trek through a tropical rainforest to observe bullet trees, howler monkeys and exotic birds. While at these sites, students design and perform investigative experiments to gain an understanding of the scientific method. In addition, students experience the ancient Mayan civilization visiting the ruins at Lamanai, Caracol and Tikal.

FA odd years, travel in January

NCE 309 - Germany, Poland and Hungary

4 Hour(s)

This course examines personal and communal treatment of 'the other' in Eastern Europe, where recent history has left not only deep scars, but also a strong commitment to social justice and tolerance. Guided by visits to historical sites, guest speakers, one-on-one conversations and individual observations, students examine how questions of tolerance and intolerance have shaped and still inform Eastern European culture and society.

SP, Travel in May

NCE 311 - American Samoa - Island Culture and Ecology

4 Hour(s)

NCE 312 - China - Its Modern Reality

4 Hour(s)

This course examines Chinese culture with an emphasis on the roles China currently plays on the international stage. Specific attention is given to China's reform that has brought about great changes taking place in its economy and the social lives of the people. Important current issues in semi-capitalism, U.S. business outsourcing and internationalism in education will be stressed.

SP even years, travel in May

NCE 313 - Revising Italy - Travel Writing in the Italian Tradition

4 Hour(s)

In this course, students will spend the semester exploring readings in the tradition of the Italian travel narrative, including classic works by authors such as Twain and James, as well as more contemporary examples. Students will work to practice their own skills in writing travel essays, and at the completion of the semester-study portion of the course, we will travel to Italy for

approximately three weeks and explore several distinct regions of the country (city, country and sea) and reflect on how our experiences there have been shaped by the major authors we have read during the semester. At the completion of the off-campus portion of the course, students will produce their own major travel essay.

SP even years, travel in May

NCE 315 - Australia - The Land and the People Down Under

4 Hour(s)

This course explores the geographic and demographic forces that have shaped Australia by focusing on the amazing geographic diversity and how the peoples of Australia have left their mark on contemporary culture. The course will review the economic, political, religious, environmental and social realities of Australia and its neighboring Oceanic Islands.

SP even years, travel in May-June

NCE 316 - Multicultural South Africa

4 Hour(s)

This course builds on the material covered in the course. A truly interdisciplinary experience, the course incorporates discussions of politics, history, economics and language in an attempt to understand the nature of power, particularly as it is exercised within the context of racial and ethnic oppression of indigenous peoples.

SP, Travel in May

NCE 317 - The Cultural and Environmental Geography of Alaska

4 Hour(s)

The purpose of this academic field study is to explore the environmental resources and cultural heritage of America's final frontier. Spring coursework will ground students in an understanding of Alaska's history, physical landscape, Native American heritage, and current natural resource base. The three-week May itinerary will include cultural activities in Sitka, Fairbanks and Anchorage involving Tlingit, Athabascan and Inuit Indian groups, plus environmental field investigations that include Denali National Park and the historic Yukon mining region.

SP odd years, travel in May

NCE 318 - Mexico - Culture, Health and Human Services

4 Hour(s)

This course has been designed for students who are interested in careers where they will work in health or human service settings that serve Hispanic populations. Using Mexico as a central focus, students will gain an understanding of Mexican and Mexican-American culture and customs. In May students will study in Cuernavaca, Mexico, where they will live with families, participate in seminars related to health, social services, migration, medical anthropology and politics. Intensive language classes are optional for those with near-native fluency.

FA even years, travel in January

NCE 319 - Art and Culture of the Ancient and Modern Maya

4 Hour(s)

In this course, students will spend the first half of the spring semester at Carroll studying ancient Mayan history, culture and art/architecture. Over spring break, students will spend 10 days in Mexico exploring the world they have studied. Upon return to

Carroll, the second half of the semester will involve developing written and artistic projects that reflect what they have learned on campus and abroad.

SP even years, travel over Spring Break

NCE 320 - Paris - Art and Culture

4 Hour(s)

This course traces the civilization and culture of France through the centuries, beginning with the Gallo-Roman times and progressing to the present. While in Paris, students will experience first-hand the wealth of art and architecture which Paris has to offer. Students will be introduced to various artistic movements born in France and will investigate how history is reflected by the many monuments in the City of Light. Previous knowledge of French is not required.

SP, travel in May

NCE 321 - Contemporary Germany - Its Culture, Economy, and Politics

4 Hour(s)

This course studies contemporary Germany, its culture and politics. Students will then travel to Germany to develop a first-hand understanding of what they have learned in the classroom. Home base will be in Marburg with travel to Berlin, Cologne, Frankfurt, Göttingen and other locations.

SP even years, travel in May/June

NCE 323 - Travel Journals

4 Hour(s)

Writing and drawing both require refined observational skills. This course seeks to develop these skills in an interrelated, experiential workshop format, partially taught off campus. Using readings taken from the long tradition of Italian travel writing, the course will seek to uncover the way writers influence our perceptions of place and specifically of Italian culture. The travel to Italy provides an opportunity to practice observational and expressive skills, and an opportunity to develop a new way of being in the world. The process of keeping a travel journal as well as the final essay about this experience will reflect this new awareness of place and of self. Travel to Italy in May if there is enough interest, as additional section might go to Sicily over Spring Break.

In FA semesters, this course will focus on Argentina, with travel in January.

NCE 324 - Identity, Culture and the European Union

4 Hour(s)

NCE 325 - Politics and Theatre in the UK and USA

4 Hour(s)

In depth look into the interrelationship of Politics and Theatre in the dynamic defining and redefining of the British culture. Students will explore plays and politics from three distinct periods: Elizabethan, Victorian, and Modern England and counterpoint them with study of American responses and innovations during the same eras. Travel to London during summer will include visits to the New Globe Theatre, the National Theatre, Stratford on Avon, Parliament, the Victoria & Albert Museum, and the British Imperial War Rooms. Travel to Chicago to explore US correlations will take place during the semester.

SP even years, summer travel

NCE 326 - Healthcare in Guatemala

4 Hour(s)

This course offers an introduction to the field of international health, using Guatemala as a focus of study. After an overview of the geography, history and culture of Guatemala. Study factors that impact illness and injury, data assessment and the development of meaningful solutions to identified problems will be discussed. The semester long course will serve as preparation for a practicum experience in Guatemala. During the two week immersion in Guatemala, students will tour health care facilities in eastern Guatemala, Mayan and colonial historical sites, and cultural points of interest. Students will also assist with mobile clinics in several villages and to present a health educational lecture.

SP every year, May travel

Note(s): Note: If you are an HHHS Minor, this NCEP has been approved for your requirements.

NCE 328 - Spain: Multicultural Faces and Footprints

4 Hour(s)

Spain has a complex culture and a rich history that has been shaped by the various groups that have inhabited the Iberian Peninsula throughout the centuries. This course will focus on the interactions between Christians, Muslims and Jews in particular, and the spaces in which these religions came together during the medieval and early modern eras. Throughout the semester we will learn of Spanish history, art, architecture and politics, and then in May we will spend two weeks visiting the cities of Madrid, Toledo, Granada, Seville and Córdoba in order to tour the palaces, cathedrals, mosques, synagogues and markets where these diverse cultures historically interacted. For the majority of the program students will live with Spanish families and will have ample opportunity to practice their Spanish skills if they opt to do so, but all families also speak English and there are no language requirements to participate in this course.

SP even years, travel in May

NCE 329 - Japan: Exploring a Land of Contrasts

4 Hour(s)

Japan is a floating world of contrasts. This archipelago of nearly 7,000 islands is home to one of the most technologically advanced cities in the modern world. It is also a land that is deeply rooted in historic and cultural traditionalism. With nearly 130 million people living in a geographical footprint the size of California, Japanese have created a harmonious balance between traditionalism and modernism. CCE Japan: Exploring a Land of Contrasts will enable students and faculty to engage in a full immersion into the Japanese culture over a two-week period. Students will spend most of their cross-cultural experience in Tokyo and the immediate surrounding area, paying special attention to arts, fashion, language, food, historical events, music, religion, and popular culture. Three days will be spent in Osaka and Kyoto, experiencing the oldest and newest Japan has to offer. A dedicated time for comparison to one's own culture will result in a reflection project that may include digital storytelling, photo essay, expanded journal, and more. This CCE is designed to challenge the hearts and minds of students.

SP even years, travel in May

NCE 330 - Iceland: A Comparative Exploration Through Cinematography and Storytelling

4 Hour(s)

The course is a comparative exploration of Iceland through film. Throughout the course, students will learn the principles of film editing. They will explore and compare our local history and tradition to Iceland's. During the first half this course, students will create three videos locally: Interview, Documentary, and Short Story. During the immersion, students will travel to Iceland and explore its history and traditions by means of cinematography and storytelling. The students will also create three videos in Iceland: Interview, Documentary, and Short Story. At the end of the course, students will reflect by creating a composite of each project, comparing our local culture to that of Iceland. Iceland provides an exceptional destination that offers pristine nature, breathtaking landscapes and vibrant culture. Its culture is deeply rooted in ancient heritage, with a storytelling tradition.

Literature has always been the cornerstone of Icelandic culture, yet all forms of the arts are thriving in Iceland, from film and music to design and fine arts.

SP odd years, May travel

NCE 333 - People of the Appalachian Mountains

4 Hour(s)

From the Scots-Irish roots of its early settlers to its role in labor relations, the people of the Appalachian Mountains have created a way of life that differs from the rest of the United States. They are a people of great pride and conviction, yet they are often presented in the media as a simple-minded, inbred people who, while humorous to watch, pose a potential threat to outsiders. From the comic strip Snuffy Smith to the movie Deliverance and television series Here Comes Honey Boo Boo, this culture remains a mystery or joke to most outsiders. This cross-cultural experience will provide students with an opportunity to learn about a culture similar in nationality and racial makeup, yet different in traditions, ethnicity and environment.

NCE 341 - Health Care in Guatemala

4 Hour(s)

This course provides an introduction to the field of international health, using Guatemala as a focus of study. After an overview of the geography, history, and culture of Guatemala, there will be an emphasis on understanding factors that impact illness and injury, data assessment, and the development of meaningful solutions to identified problems. The semester long course will serve as preparation for a practicum experience in Guatemala. During the two week immersion in Guatemala, students will tour health care facilities in eastern Guatemala, Mayan, and colonial historical sites, and cultural points of interest. Students will also assist with mobile clinics in several villages and present a health education lecture.

SP

Prerequisite(s): Junior standing, NRS 233

Nursing

NRS 100 - Health Care and Nursing

4 Hour(s)

This is the first course in the nursing major. It is designed to acquaint the student with three broad areas that encompass the professional nursing role. Students acquire a foundational ability to use appropriate professional language including the terms and abbreviations that are necessary for professional communication. The process of nursing is studied from the context in which the program is offered, including consideration of global, regional and institutional needs and expectations of the practicing nursing professional.

Prerequisite(s): Admission to the nursing program or approval by nursing faculty

NRS 100L - Health Care and Nursing Laboratory

0 Hour(s)

Laboratory component for NRS 100.

NRS 230 - Health Assessment

4 Hour(s)

The foundational concepts, scientific basis and theoretical constructs of effective therapeutic communication, interviewing, health

history, and physical assessment across the life span are presented. Laboratory practice is designed to produce the cognitive and psychomotor skills necessary to conduct a systematic and accurate assessment of an individual's health status. The ability to collect, organize, document and analyze health history and physical assessment data, as well as the ability to recognize and promote adaptive human responses are the expected outcomes of this course.

FA, SP

Prerequisite(s): Admission to the Nursing Program, ANP 130,

Pre-or Co-requisite: NRS 100.

NRS 230L - Health Assessment Laboratory

0 Hour(s)

Laboratory component for NRS 230.

NRS 233 - Foundations of Nursing Practice

4 Hour(s)

This course is an introduction to the scientific basis and theoretical foundations of professional nursing practice. Nursing theory is incorporated with nursing process to enable the student to identify basic health responses and intervene appropriately at the foundational level of care. The student learns to use a systematic framework to implement the nursing process and begins to recognize and apply nursing research to practice. A continued development of an attitude of inquiry is expected.

FA, SP

Prerequisite(s): ANP130, ANP140, NRS230

Concurrent with NRS 234.

NRS 234 - Foundations - Practicum

2 Hour(s)

This course focuses on the application and integration of the nursing process to promote physical wellness. Simulated and actual client-care experiences provide an opportunity for student development and practice in the roles of professional nursing that assist the individual to regain or maintain an optimal health state. Therapeutic interventions related to fundamental needs across the life span are addressed and a basic skill level is expected as an outcome of the course.

FA, SP

S/U graded

Prerequisite(s): ANP 130, ANP 140, NRS 230

NRS 236 - Human Pathophysiologic Responses

4 Hour(s)

This course is focused on the alterations in cell, tissue and system mechanisms that manifest as health problems throughout the life span and prevent or limit individuals from making adaptive responses. Although the focus of the course is on the systemic pathophysiology of the individual, the response of the family are acknowledged as inseparable from the health state of a family member.

FA,SP

Prerequisite(s): ANP 130, ANP 140, CHE 101, CHE 102

NRS 300 - Critical Inquiry in Nursing Research

2 Hour(s)

This course examines the concepts and the process of research. A systematic and critical inquiry into published nursing research and an understanding of its practice application(s) provide the course emphasis.

FA, SP

Prerequisite(s): NRS 233, CMP 112

NRS 300H - Critical Inquiry in Nursing Research Honors

2 Hour(s)

NRS 300H is an honors program course emphasizing critical reading, critical analysis, and effective writing in the context of professional nursing. Concepts and processes of research that undergrad evidence-based practice are examined. Students gain essential knowledge and experience in the search of electronic databases; the retrieval, appraisal, and synthesis of empirical evidence; and the development and submission of a professional manuscript for publication.

Prerequisite(s): Acceptance in the CU Honors Program, NRS 233, CMP 112

NRS 301 - Pharmacology

3 Hour(s)

Addresses pharmacology for the licensed athletic trainer and nurse. Students explore basic knowledge about major drug groups, physiological effects of pharmacotherapeutic agents, utilization of pharmacotherapeutic agents, and storage, dispensing, and tracking protocols for pharmacotherapeutic agents.

FA,SP

Prerequisite(s): CHE 101/CHE 102 or higher, and ANP 130/ANP 140 or higher

NRS 310 - Mental Health Nursing Care

3 Hour(s)

This course focuses upon the theoretical principles of psychiatric/mental health nursing and on practical foundations for assessing, planning, intervening, and evaluating within psychiatric/mental health situations to promote health. The course examines measures for identifying, supporting and fostering the abilities of individuals, families, groups, and communities to cope and assist mentally unhealthy individuals to higher levels of function and quality of life.

FA, SP

Prerequisite(s): BIO 212, NRS 233, NRS 234, NRS 236, PSY 221

NRS 316 - Introduction to Medical Surgical Nursing

4 Hour(s)

This course is designed to provide the student with an understanding of the effects of selected physiologic problems on adults in inpatient care settings and the relevant nursing interventions to care for those problems. The content explores ways to promote physical and emotional health in the ill individual, across the adult lifespan, through a partnership with the patient and the patient's support system.

SP.

Prerequisite(s): NRS 233

, NRS 234, NRS 236, NRS 301, NRS 310, NRS 322,

Corequisite: NRS 300, NRS 310, NRS 322

Concurrent with NRS 317.

NRS 317 - Medical Surgical Nursing Practicum

5 Hour(s)

This course is designed to provide the student with an understanding of the effects of selected physiologic problems on adults in inpatient care settings and the relevant nursing interventions to care for those problems. The content explores ways to promote physical and emotional health in the ill individual, across the adult lifespan, through a partnership with the patient and the patient's support system.

SP.

Prerequisite(s): NRS 233, NRS 234, NRS 236, NRS 310, NRS 322, HSC 300

Corequisite: NRS 310, NRS 322

Concurrent with NRS 316.

NRS 322 - Family-Centered Maternal Child Care

4 Hour(s)

The course focuses on the specialized health care needs of the childbearing family. The health responses of the family unit are emphasized as essential to the promotion and maintenance of health of the mother, newborn, child and adolescent. Students develop the necessary knowledge base to provide developmentally and culturally competent care and teaching for pregnancy, delivery and newborn nursing. The course provides the necessary knowledge base to maintain optimal health in the pediatric population with acute and/or chronic illness through the promotion of wellness behaviors in the child and family.

FA, SP

Prerequisite(s): Nursing major, NRS 233, NRS 234, NRS 236, PSY 221, BIO 212

Pre-or Co-requisite: PSY 221

NRS 391 - Special Topics in Nursing

2 - 4 Hour(s)

NRS 415 - Community Health Practicum

2 Hour(s)

This course is designed to provide the student with opportunities to apply evidence and theoretical principles of community and public health nursing in the community setting. Care is focused on health promotion and /or disease prevention in communities, populations, families, and individuals in a variety of settings.

FA

Prerequisite(s): NRS 300, NRS 310, NRS 316, NRS 317, NRS 322

Concurrent enrollment in NRS 416.

NRS 416 - Community Health Nursing Care

3 Hour(s)

This course provides a body of knowledge that allows the student to view the community as a complex system of forces. Public health and community nursing strategies will be defined and integrated to assess overall health of populations and communities. Students focus on the community as client, and learn to assess and analyze data from public health sources in order to plan and implement community nursing care utilizing primary, secondary, and tertiary prevention strategies.

Prerequisite(s): NRS 300, NRS 310, NRS 316, NRS 317, NRS 322

Concurrent with NRS 415.

NRS 417 - Advanced Medical Surgical Nursing

3 Hour(s)

This course is designed to provide the student with an understanding of the effects of multiple diagnoses on adults in various clinical contexts (e.g. ER, ICU, sub-acute, community). Learners will gain knowledge and then are capable of assessment and management of patients with complex problems. The content explores ways to prioritize problems and interventions, use practice guidelines and outcome indicators in planning and implementing nursing care to ill individuals across the adult lifespan. Discussion related to ethical issues, cultural awareness and diversity along with supporting theories and models is integrated in all modules.

FA

Prerequisite(s): NRS 300, NRS 310, NRS 316, NRS 317, NRS 322

Concurrent with NRS419.

NRS 419 - Advanced Medical Surgical Practicum

5 Hour(s)

This course continues and expands, in practice, the concepts of patient care introduced in the medical surgical nursing theory courses. The practicum and laboratory experiences focus on implementing the nursing process and skills with ill individuals from diverse populations and developmental levels in a variety of medical/surgical in-patient settings.

FA

Prerequisite(s): NRS 300, NRS 310, NRS 316, NRS 317, NRS 322

Concurrent with NRS 417.

NRS 429 - Health Policy and Administration

3 Hour(s)

This course provides an opportunity for the student to synthesize knowledge from all previous coursework and clinical experiences. Learners will have opportunities to work together to understand regional, national and global health care policy. Learners will achieve an understanding of leadership concepts and management skills, and will utilize these concepts as a basis for implementing change at the policy level.

SP.

Prerequisite(s): NRS 415, NRS 416, NRS 417, NRS 419 Co-requisite NRS 431

NRS 431 - Capstone

4 Hour(s)

The course provides an opportunity for the student to synthesize knowledge from all previous course work and clinical experiences. The student will be provided with the opportunity to practice professionally through delegation of tasks, supervision of non-professional staff, and management of patient groups. Students will provide direct patient care for clients and families with complex health needs. This capstone will help prepare students for the workforce following graduation.

SP

Prerequisite(s): NRS 415, NRS 416, NRS 417, NRS 419

Concurrent with NRS 432.

NRS 432 - Professional Practice Preparation

1 Hour(s)

The professional practice lab experience provides opportunities for students to identify strengths and areas for improvement in their professional nursing skills. Along with faculty support, students are provided simulation experience, study group work, group review sessions, and professional practice experiences that will strengthen nursing knowledge and build confidence to practice as a nurse.

SP.

Prerequisite(s): NRS 415, NRS 416, NRS 417, NRS 419

Concurrent with NRS 431.

NRS 498 - Independent Study in Nursing

1 - 4 Hour(s)

Prerequisite(s): Approval of the College of Health Science dean and consent of the chair of nursing and instructor

Public Health

PBH 101 - Introduction to Public Health

4 Hour(s)

General Education S1

This course is designed to expose students to core topics in the area of public health. The course will examine varying health, environmental, and behavioral influences on the health of the public in the United States. The course will challenge students to think critically at the varying nature of public health and current events. Students will evaluate case studies and be provided with a basic didactic background. The course will be team taught and/or will include multiple guest speakers who can address the breadth of topics in this area.

FA, SP

PBH 102 - Global Health

4 Hour(s)

General Education S1 and CCD

This course will introduce students to the main concepts of the public health field and the critical links between public health and social and economic development. Students will get an overview of various factors, including social, economic, and political issues on the health of individuals and of communities. The course will also introduce students to key concerns regarding nutrition, reproductive health, infectious diseases, and chronic diseases. The course will cover key concepts but be very practical in orientation. The course will be global in coverage but with an important focus on the developing world and on the health of the poor.

FA, SP

PBH 114 - Biostatistics for Health Sciences

4 Hour(s)

This course provides an introduction to biostatistics, covering topics of interest for biomedical/health science fields including: descriptive statistics, proportions, probability, estimation, hypothesis testing applications, framing research questions, interpreting results, correlation and simple regression, and basic categorical data analysis. The computer programming language EXCEL will be used in this class.

SP

Prerequisite(s): PBH 101 or PBH 102 or ANP 130

PBH 210 - Public Health for Communities

4 Hour(s)

This course is designed to help students more effectively work with communities to make them healthier and stronger.

Throughout the semester, students will 1) review common public health processes for assessing community strengths and needs, 2) explore their own beliefs, values, and biases and learn how they affect their interactions with cultures different than their own, 3) identify and learn about stakeholders in community health, and 4) learn about strategies to effectively partner with community members and organizations. Students will also have the opportunity to meet public health practitioners, learn about their professional roles and responsibilities, and benefit from their expertise.

PBH 211 - Public Health Field Experience

2 Hour(s)

This course will provide students with an opportunity to observe public health professionals under the direction and supervision of the Public Health faculty. Students will be placed at an on or off-campus organization to apply, and further develop, core public health competencies. Depending on the placement site, students will have the opportunity to assist with a variety of activities, including health promotion and education, program development and assessment, and disease surveillance.

(Course fee required)

SP

Prerequisite(s): PBH 101, PBH 102, PBH 210

PBH 302 - Environmental Health

2 Hour(s)

This course is designed to introduce environmental health issues and key concepts related to environmental risk and policy. The specific topics covered during this course include air and water quality, food safety, vector-borne diseases, and pesticides. The goal of the course is to provide students with basic knowledge of environmental health as it applies to the principles of public health practice from individual, organizational and political perspectives.

FA

Prerequisite(s): Pre-requisite PBH 101, PBH 102

PBH 303 - Occupational Health and Safety

2 Hour(s)

Work has an impact on physical and psychological health. In this course students will gain an understanding of the current state of occupational health and safety in the United States and globally and underlying theories of accident causation. Students will explore the enforcement of laws regulating occupational safety and health, physical and psychological hazards facing employees, and the roles of workers, employers and public health professionals in today's complex work environments. New challenges in occupational health and safety, such as MRSA in the workplace and emergency preparedness, will also be addressed.

FA

Prerequisite(s): PBH 101

Corequisite: PBH 302

PBH 312 - Public Health Policy and Administration

4 Hour(s)

This course is about making public policy in public health and in health care: what it is, who makes it, and how and when it is made successfully. The course aims (1) to highlight several selected critical public policy issues and (2) to build skills in critical, reflective thinking that will help the student in making decisions about, or advocating for, policies that reflect individual and societal values. In the study of public policy, there are two broad theoretical models for explaining the policy making process. One is the rational model that emphasizes economic analysis and rational decision making. The other model is based in political science. This course is built on the political science model and emphasizes the political context in which public policy is always developed.

SP

Prerequisite(s): PBH 101, PBH 102

PBH 320 - Principles of Health Behavior

4 Hour(s)

This course provides instruction in evidence-based strategies for changing health-related behaviors on an individual, group, and ecological level. Major theories and models will be reviewed; effective assessment and communication will be emphasized. These considerations will be applied to the development, implementation, and evaluation of an individual health behavior modification project. Anticipating and managing barriers to change on both individual and organizational levels will be addressed, as will strategies for engaging clients and evaluating the efficacy of intentions.

SP

Prerequisite(s): PBH 101

Note(s): Please note: PSY 260 will be accepted in place of PBH 320 for Psychology minors only.

PBH 324 - Program Development, Assessment, and Evaluation in Public Health

4 Hour(s)

This course presents methods for the identification of population-based needs for public health intervention, development of programs to meet those needs, and evaluation of the effectiveness of these public health interventions. The course integrates several knowledge and skill areas including: research methods, epidemiology, biostatistics, proposal writing, budget planning, project management, and program evaluation.

SP

Prerequisite(s): PBH 101, PBH 102, PBH 210

PBH 421 - Epidemiology

4 Hour(s)

General Education S2

Modern epidemiology, as a science applicable to investigations of disease and other outcomes, policy assessment, and population science, evolved during the last half of the 20th century. Epidemiologic methods focused on application of statistical theory, use of survey methods, and information technology implementation. Epidemiology also broadened its scope to include concepts of causation applicable to non-communicable disease and other health determinants, including social and behavior factors. Applications to intervention efficacy, effectiveness, and safety, testing and decision-making methods, and policy analysis applicable to social concerns recently have been integrated into epidemiology teaching and research.

FA

Prerequisite(s): CMP 112, PBH 101, PBH 102, PBH 114, and PBH 210

PBH 480 - Public Health Internship

6 - 12 Hour(s)

Students are given the opportunity to apply public health theories and concepts to actual work experiences under the supervision of an external and capstone supervisor. This course is a part-time or full-time internship with an affiliated organization or facility actively engaged in the field of public health or in some cases an on campus experience. The purpose of the internship program is to enhance and develop personal growth in public health disciplinary knowledge, ethical behaviors, career development, interpersonal skills, problem solving abilities, and personal responsibility. Further, it is intended to complement and reinforce the academic goals of the institution.

(Course fee required)

FA, SP, SU

Prerequisite(s): Completion of major requirements through PBH 324, 3.0 GPA in the major, and 2.75 cumulative GPA (for external experiences), completion of internship application, and consent from program faculty required. For Fall internships, applications are due April 1st; for Spring internships, applications are due November first and should be submitted to PBH 480 instructor.

Physical Education

PED 103 - Philosophy, Principles & History of Physical Education/Athletics

3 Hour(s)

Physical and Health Education/Athletics This course gives the student a broad historical, philosophical, and futuristic view of the physical education/athletics field. Principles of physical education/athletics are also introduced with emphasis on curricular development and design.

(Required course fee)

SP

PED 110 - Basic Weight Training Instruction

1 Hour(s)

This course provides training for the entry-level resistance-training instructor, introducing basic strength training techniques, basic training principles, functional anatomy, and exposure to a variety of forms of resistance training. Students learn to apply basic physiology, biomechanics, weight room safety, and basic program design.

(Required course fee)

SP

PED 110L - Basic Weight Training Instruction Laboratory

0 Hour(s)

Laboratory component for PED 110.

PED 120 - Fundamental Motor Development

2 Hour(s)

Introductory course exploring the growth and development of basic motor skills from infancy to adulthood and changes which occur in skills with advanced age. This course will also explore different learning theories and variables associated with mastering motor skills.

SP

PED 208 - Organization and Administration of Physical Activities/Athletics

2 Hour(s)

In this course, students study the organization and administration of physical education/ fitness and athletic programs. Course content addresses organizational issues at various levels of administration K-12 through adult.

FA

PED 214 - Teaching Outdoor Activities in Physical Education

2 Hour(s)

This course is designed to offer undergraduate students an in-depth experience with various outdoor skills for orienteering, outdoor survival, canoeing, mountain (wall) climbing, all season camping, safety outdoors, outdoor fitness (trail running, backpacking, hiking, mountain biking) and ropes course.

(Required course fee)

FA

PED 310 - Elementary Physical Education Activities

3 Hour(s)

In this course, students study basic movement patterns in games of lower and higher organization as well as tumbling and individual activities. Fitness activities are incorporated throughout as well as early childhood assessment.

(Required course fee)

FA

PED 311 - Team Sports and Officiating

3 Hour(s)

This course gives students a background in the history, rules, equipment, values and the fundamental skills and techniques necessary to participate in and enjoy team sports. Officiating techniques in team sports are also included.

(Required course fee)

SP-Odd Years

PED 311L - Team Sports and Officiating Laboratory

0 Hour(s)

Laboratory component for PED 311.

PED 312 - Individual/Dual and Lifetime Activities

3 Hour(s)

This course gives students a background in the history, rules, equipment, values and the fundamental skills and techniques necessary to participate in and enjoy individual and lifetime activities.

(Required course fee)

SP-Even Years

PED 312L - Individual/Dual and Lifetime Activities Laboratory

0 Hour(s)

Laboratory component for PED 312.

PED 320 - Coaching Theory

2 Hour(s)

The course is designed to be a comprehensive introduction to the art and science of coaching. The course introduces coaching philosophy, sport pedagogy, sport physiology, sport medicine, sport psychology, and sport management. This course is designed to examine theories and techniques in coaching through developing information, organization and management skills.

Development of technical information, safety aspects and human relationships will also be studied. This course includes American Sport Education Program Coaching Principles certification.

SP

PED 321 - Coaching Practicum

4 Hour(s)

This course is designed to provide students the opportunity to apply the principles and practices of coaching in a junior high, high school, or collegiate environment (Either boys or girls). The student will be allowed to actively participate in practical coaching experiences under the guidance and supervision of a qualified coach. The students will be matched with a team and coach that will help enhance the understanding of the principles of coaching, season planning and the roles of the coach as they relate to: formation and handling of athletic budgets, team policies, organization of team practices, preparations for home and away contests, dealing with individual and group conflicts, enforcing rules of the school and the team, and becoming familiar with conditioning, injury prevention and injury care.

FA, SP, SU

Prerequisite(s): HED 101, PED 320

PED 328 - Elem Phy Ed Activities and Health Education

3 Hour(s)

The course is specifically designed for elementary education majors to introduce both the content and techniques for delivering appropriate school health and physical education programs at the K-9 level. Content reflects Wisconsin's Model for Academic Standards for Physical Education and Health.

(Required course fee)

FA, SP

PED 353 - Capstone: Special Methods in Teaching Physical Education

4 Hour(s)

Applications of general principles and methods of teaching physical education are presented in this course. Special emphasis is placed upon selection, use and preparation of equipment, materials, teaching aids and other resources especially designed for the physical education setting (Pre-K-12).

(Required course fee)

SP

Prerequisite(s): Successful completion of the PPST, admission to TEP or instructors permission and junior standing

PED 391 - Special Problems and Research

4 Hour(s)

Approval of the divisional dean and consent of instructor.

PED 398 - Special Studies in Physical Education

1 - 3 Hour(s)

Approval of the divisional dean and consent of instructor.

PED 411 - Adapted Physical Education and Sport

4 Hour(s)

This course is designed to introduce to the student the skill, knowledge, and competencies necessary for planning, organizing, conducting, and evaluating programs and activities for individuals who exhibit special physical, intellectual, and/or behavioral traits, or some other exceptional need. Special attention will be focused on the psychomotor domain.

FA

PED 412 - Assessment/Program Evaluation in Adapted Physical Education

2 Hour(s)

This course introduces the core theoretical and practical background necessary to assess and evaluate the motor development and physical fitness needs of persons with disabilities. Students are able to administer various psychomotor assessment tools and apply the results in the design of an individualized motor program.

(Required course fee)

SP

Prerequisite(s): PED 411

Corequisite: PED 414

PED 414 - Field Experience in Adapted P.E.

1 Hour(s)

This experience provides the student with an opportunity to work with students in an adapted physical education setting under the supervision of a Wisconsin 860 licensed physical education teacher. Attendance at a monthly seminar and a minimum of 40 clock hours must be spent at early childhood, elementary, and secondary levels.

SP

Prerequisite(s): PED 411

Corequisite: PED 412

PED 421 - Psycho-Social Aspects of Physical Activity

4 Hour(s)

This course presents an introduction to basic issues and current research in the psychology and sociology of American sport, physical activity, rehabilitation and leisure. Specific emphasis is placed on the social and psychological factors affecting an individual's performance in motor activities.

FA

Philosophy

PHI 101 - Introduction to Philosophy

4 Hour(s)

General Education P1

A historical introduction to the major fields of Western philosophy including logic, metaphysics, epistemology, and ethics. This course helps students better understand the world by studying significant interpretations of self, the world, and morality that have been offered by thinkers, past and present.

FA, SP

PHI 105 - Introduction to Logic

4 Hour(s)

General Education P1

A study of the principles and methods of logical reasoning. The class will focus primarily on formal mathematical deductive logic but will also include principles of inductive logic and Aristotelian syllogistic logic.

SP

PHI 106 - Ethics, Values and Judgment

4 Hour(s)

General Education P1

This course is a practical overview of key issues, questions and concepts in applied ethics. Special emphases are placed on the variety of ethical approaches to moral and ethical issue. Students will examine a variety of personal, social, and professional ethical issues and problems and learn methods of researching and evaluating them through the use of critical thinking skills and sound ethical reasoning. Students are provided an active learning experience, increased student interaction and opportunities for independent research into ethical issues of personal interest.

FA, SU

PHI 192 - Environmental Ethics

4 Hour(s)

General Education P1

This course addresses historic philosophical and religious perspectives concerning the natural environment, including contemporary ethical responses to such global concerns as resource stewardship and management, technological change and impact, ecological diversity and sustainability, environmental politics and economics, energy use, population growth, and overconsumption. An emphasis will be placed on global resource challenges and social issues related to resource utilization.

SP

PHI 194 - Bioethics

4 Hour(s)

General Education P1

This course explores contemporary topics in biomedical ethics through an understanding of foundational biological principles and multiple ethical perspectives. Students critically read, analyze, and discuss essays that contrast viewpoints on bioethical topics. Improvement of student writing is emphasized.

FA

PHI 206 - Ethics

4 Hour(s)

General Education P2

An introductory investigation of alternative systems for determining and justifying ethical values. The course explores both theories of conduct (What should I do?) and theories of character (Who should I be?) through an exploration of the contemporary significance of theorists such as Aristotle, Kant, and Mill.

SP

PHI 206H - Ethics

4 Hour(s)

General Education P2

An introductory investigation of alternative systems for determining and justifying ethical values. The course explores both theories of conduct (What should I do?) and theories of character (Who should I be?) through an exploration of the contemporary significance of theorists such as Aristotle, Kant, and Mill.

SP odd years

Prerequisite(s): Acceptance to the Honors required

PHI 207 - History and Philosophy of Science

4 Hour(s)

General Education P1

A study of the philosophical foundations of science. The class will discuss the nature, purpose and methodologies of scientific inquiry starting with Aristotelian science and tracing the development to the modern period. The class will also discuss the nature of scientific proof, the evaluation of evidence for scientific claims, and the formation and evaluation of scientific theories.

FA, odd years

PHI 210 - Philosophy, Politics, and Economics

4 Hour(s)

General Education P2

A discussion-based interdisciplinary course exploring the interrelated nature of fundamental ideas and methods used by philosophers, political scientists, and economists to study important socio-economic issues such as globalization, freedom and markets, citizenship and political power, and others.

FA

PHI 213 - Philosophy of Art

4 Hour(s)

General Education P1

This course introduces students to some of the most historically defining philosophical reflections on the notion of "art". In particular it will offer insight into some of the most prominent discussions circa its relationship with the concepts of nature and beauty, its social and moral function, and its autonomy in relation to the human mind and the artist's intention.

SP, odd years

PHI 298 - Independent Study in Philosophy

1 - 4 Hour(s)

Qualified students will undertake an independent study project. s: Junior or senior standing, approval of the divisional dean and consent of instructor.

PHI 307 - World Philosophy

4 Hour(s)

General Education P2 and CCD

This course is an introduction to the study of contemporary non-Western philosophy: philosophical traditions that originated and developed in the cultural regions of Asia, Africa, and Latin America. Students will engage in an in-depth study of three works by contemporary thinkers that exemplify philosophical discourses of the three geographical and broad cultural areas identified. By means of the study of these distinct approaches to the discussion, for example, on the foundations of knowledge and reality, conceptions of the divine and the afterlife, ethical and political theories, students will be required to reflect on these works per se as well as in relation to their specific cultural and intellectual traditions, and to their intrinsic post-colonial character as reactions to distinctively Western and Classical philosophical and political theories.

FA, odd years

PHI 308 - Philosophy of Religion

4 Hour(s)

General Education P2

This is an advanced introduction to the main issues in the philosophy of religion. Topics that may be covered are the rationality of religious belief, cognitive experience of the divine, the compossibility of divine attributes, the efficacy of prayer, the problem of evil, and other issues that arise in philosophical theology.

SP, odd years

Also Offered As: REL 308

PHI 322 - Great Ideas in the History of Philosophy

4 Hour(s)

General Education P2

An advanced survey of philosophical thought from the Pre-Socratics to Late Scholasticism. The course will trace the development of western philosophical thought and the seminal ideas of western civilization as found in the work of the leading thinkers of the ancient and medieval world.

FA, even years

PHI 323 - Great Ideas in the Modern World

4 Hour(s)

General Education P2

An advanced survey of philosophical thought from the modern period beginning with Descartes through key 20th century and current philosophers. The course will trace the development of western philosophical thought and the seminal ideas of western civilization as found in the work of the leading thinkers since approximately 1600.

SP, even years

PHI 398 - Independent Study in Philosophy

1 - 4 Hour(s)

Qualified students will undertake an independent study project.

Prerequisite(s): Junior or senior standing, approval of the divisional dean and consent of instructor

Physics

PHY 101 - Introductory Physics I

4 Hour(s)

General Education N1

The first course of a non-calculus based two-course sequence in the basic principles of physics covering the general areas of mechanics, thermal physics and fluids. The mathematical proficiency expected for this course is algebra and introductory trigonometry. This course satisfies the physics requirement for some majors, and pre-health professional requirements. (Credit cannot be received for both PHY 101 and PHY 203.)

Four hours of lecture/discussion and two hours of laboratory per week

(Required course fee)

FA, SP, SU

Prerequisite(s): MAT 101 or higher

PHY 101L - Introductory Physics Laboratory

0 Hour(s)

Laboratory component for PHY 101.

PHY 102 - Introductory Physics II

4 Hour(s)

The second course of a non-calculus based two-course sequence in the basic principles of physics covering the general areas of wave motion (oscillations, waves and sound), light and optics, and electromagnetism. The mathematical proficiency expected for this course is algebra and introductory trigonometry. This course satisfies the physics requirement for some majors, and pre-health professional requirements. (Credit cannot be received for both PHY 102 and PHY 204.)

Four hours of lecture/discussion and two hours of laboratory per week.

(Required course fee)

FA, SP, SU

Prerequisite(s): PHY 101 Instructor consent is necessary for enrollment in PHY 102 without completion of PHY 101

PHY 102L - Introductory Physics Laboratory

0 Hour(s)

Laboratory component for PHY 102

PHY 105 - Astronomy

4 Hour(s)

General Education N1

The course includes the study of the motions and structures of the earth, the moon, the sun, planets, stars and galaxies, and consideration of cosmological theories. The laboratory includes telescopic observational astronomy.

Labs are scheduled for twice a week but only meet once a week on average for three hours

(Required course fee)

FA, SP, SU

PHY 105L - Astronomy Laboratory

0 Hour(s)

Laboratory component for PHY 105.

PHY 203 - General Physics I

4 Hour(s)

The first course of a calculus level two-course sequence in the basic principles of physics covering the general areas of mechanics, fluids and wave motion. This course satisfies the physics requirement for some majors, and pre-health professional requirements. (Credit cannot be received for both PHY 101 and PHY 203.)

Four hours of lecture/discussion and three hours of laboratory per week.

(Required course fee)

SP

Prerequisite(s): MAT 160

PHY 203L - General Physics I Laboratory

0 Hour(s)

Laboratory component for PHY 203.

PHY 204 - General Physics II

4 Hour(s)

The second course of a calculus level two-course sequence in the basic principles of physics covering the general areas of heat, light, electricity and circuits, and magnetism. This course satisfies the physics requirement for some majors, and pre-health professional requirements. (Credit cannot be received for both PHY 102 and PHY 204.)

Four hours of lecture/discussion and three hours of laboratory per week.

(Required course fee)

FA

Prerequisite(s): MAT 160 and MAT 161 Instructor consent is necessary for enrollment in PHY 204 without the successful completion of PHY 203

PHY 204L - General Physics II Laboratory

0 Hour(s)

Laboratory component for PHY204.

PHY 301 - Electricity and Magnetism

4 Hour(s)

Physical principles underlying modeling of charges and currents, including circuit elements and fundamentals of analog electrical circuits are explored through lecture and laboratory. Topics will include the following: Maxwell's equations, electric and magnetic fields in vacuum and in matter, potentials and the uniqueness theorem, current and voltage sources, resistors, Ohm's Law, Kirchhoff's Laws, Thevenin and Norton theorems.

Four hours of lecture/discussion and three hours of laboratory per week.

(Required course fee)

SP, even years

Prerequisite(s): PHY 204, MAT 207

PHY 301L - Electricity and Magnetism Laboratory

0 Hour(s)

Laboratory component for PHY 301.

PHY 303 - Modern Physics

4 Hour(s)

A course in the basic principles of modern physics treating the general subjects of atomic and nuclear physics, relativity, cosmology and quantum physics.

Four hours of lecture/discussion and three hours of laboratory per week.

(Required course fee)

Sp, odd years

Prerequisite(s): PHY 204 or PHY 102 and MAT 160 and MAT 161

PHY 303L - Modern Physics Laboratory

0 Hour(s)

Laboratory component for PHY 303.

PHY 304 - Classical Mechanics

4 Hour(s)

An intermediate course in mechanics including vector calculus, conservation laws of mechanics, and dynamics of a particle and of a rigid body.

Four hours of lecture/ discussion.

Sp, odd years

Prerequisite(s): PHY 204 or PHY 102 and MAT 160 and MAT 161

PHY 320 - Thermodynamics

4 Hour(s)

An introduction to the basic concepts of thermodynamics, including temperature, thermal expansion, heat flow, calorimetry, the four Laws of Thermodynamics, statistical mechanics and fundamental theories of phase transitions, topics on gas, vapor, combined power cycles, refrigeration cycles, gas mixtures, and gas-vapor mixtures. Engineering applications will be emphasized alongside theoretical fundamentals.

Sp, even years

Prerequisite(s): PHY 204, MAT 207

PHY 380 - Engineering Internship

4 Hour(s)

A work-oriented experience in applied physics. This is to be planned in advance with a physics faculty member. It does not count toward a minor in Physics. S/U graded.

PHY 396 - Special Problems and Research

4 Hour(s)

(Required course fee)

Prerequisite(s): Approval of the divisional dean and consent of instructor

PHY 398 - Independent Study in Physics

1 - 4 Hour(s)

Prerequisite(s): Junior standing, approval of divisional dean and consent of the instructor

PHY 450 - Advanced Experimental Physics

4 Hour(s)

In this advanced physics lab course, students design and complete a research project, discuss general physics topics and physics research, as well as attend seminars by physics and engineering professionals. Preparation for employment and professional skills development are emphasized.

The course meets for 5 hours per week.

(Required course fee.)

Fa

Prerequisite(s): PHY 301 or PHY 303

PHY 450L - Advanced Experimental Physics Laboratory

0 Hour(s)

Laboratory component for PHY 450.

PHY 480 - Work-Oriented Experience

4 Hour(s)

A work-oriented experience in applied physics. This is to be planned in advance with a physics faculty member. It does not count toward a minor in Physics.

S/U graded

PHY 496 - Special Problems and Research

4 Hour(s)

(Required course fee)

Prerequisite(s): Approval of the divisional dean and consent of instructor

Politics

POL 103 - Politics of the World's Nations

4 Hour(s)

General Education S1 and CCD

A survey of political systems that introduces students to fundamental concepts and their applications in many nations. The course examines public institutions (legislatures, executives, courts) and political processes (voting, policy-making).

SP

POL 141 - Intro to American Politics

4 Hour(s)

General Education S1

A broad survey of American national politics. Political Science majors should take this course before taking any other course in politics.

FA, SP

POL 155 - Contemporary Global Politics

4 Hour(s)

General Education S1 and CCD

This course provides an analysis of the dynamics of global politics and focuses on two general themes: 1) global conflict and cooperation and 2) the global political economy. Topics include state and non-state actors, the role of power and morality, the types and causes of war, foreign policy decision-making, just war tradition, humanitarian intervention, the democratic peace theory, global financial institutions, trade and international monetary policy, and the role of multinational corporations.

FA

POL 266 - Methods of Social Science Research

4 Hour(s)

A study of the way social science explores, describes, and explains human social life and the social world. This class is developed for anyone interested in understanding social science techniques including majors of sociology, criminal justice, and political science. This course includes lectures and active learning techniques to develop research skills of reading and critiquing research articles, creating literature reviews, analyzing data, and developing appropriate methodologies.

FA, SP

POL 269 - The American Congress

4 Hour(s)

This course explains the operations and assesses the effectiveness of the contemporary Congress. Students will examine the United States Congress from an institutional perspective. We will also explore the behavior of members of Congress and their quest for office.

POL 275 - Political Theory

4 Hour(s)

General Education S2

A broad survey of the concerns, problems, and issues within western political thought. Topics include democratic theory, social contract theory, citizenship, classical questions of justice, understandings of power, institutions, and the role of the state.

FA

Prerequisite(s): sophomore standing or permission of instructor

POL 276 - Democracy, Globalization, and International Governance

4 Hour(s)

General Education S1

This course provides an overview of the concerns, problems, and achievements of recent occidental political thought in addressing normative issues emerging from globalization and its impact on democratic governance.

SP

Prerequisite(s): sophomore standing or permission of instructor

POL 280 - Politics and Culture

4 Hour(s)

This course explores the intersection of politics and high, low, and popular culture. The emphasis during the course of the semester will be to analyze the way in which culture and politics each influence each other.

FA, odd years

POL 285 - International Conflict and Security

4 Hour(s)

General Education S2 and CCD

The course introduces students to causes and consequences of war and conflict in the international system. The course covers the nature of security and insecurity in the international system and the various ways in which actors (states, IOs, groups and individuals) seek to prevent and mitigate the outbreak of conflict. Among the topics covered include the threat posed by the proliferation of weapons of mass destruction, terrorism, asymmetrical conflict, ethnic conflict, human security, and the challenges these problems present to the international system, states, and individuals.

POL 291 - Topics in Politics

2 - 4 Hour(s)

Focused study of a topic of special concern to political scientists. Changing topics may be drawn from any area of politics. Course may be repeated for credit. Two-credit Topics in Politics courses may not be counted toward a political science or global studies major or minor.

POL 296 - Women, Gender and Politics

4 Hour(s)

This course examines women, gender, and American politics. The last several years have brought these issues to the fore in American politics in ways that few would have predicted. To understand how women act politically, examine how gender shapes US politics, and make sense of our current political moment, this course explores two broad topics: women as activists, particularly within movements, and women in formal political roles, such as voter, candidate, and office-holder. This course will be conducted largely in seminar fashion, meaning that learning will take place through careful reading, thoughtful, informed discussion, and analytic writing assignments.

SP Odd Years

POL 298 - Independent Study in Politics

1 - 4 Hour(s)

FA, SP, SU

Prerequisite(s): Junior standing, approval of divisional dean and consent of instructor

POL 301 - Politics of Developed Nations

4 Hour(s)

General Education S2 and CCD

A comparative treatment of political systems in several advanced democratic nations. The course focuses on the policy problems that governments of developed countries face as they attempt to regulate 'post-industrial' economies and societies.

FA, odd years

Prerequisite(s): POL 103 or consent of instructor

POL 303 - Politics of Developing Nations

4 Hour(s)

General Education S2 and CCD

Through an examination of the political systems in a number of non-western countries in Africa, Latin America, Asia and the Middle East, this course studies the problems of political development in an environment of domestic and international challenges.

FA, even years

Prerequisite(s): POL 103 or consent of instructor

POL 314 - Queer and Gender Theory

4 Hour(s)

Queer is a protean term. It can be used as an adjective to mean simply strange or odd as in Louisa May Alcott's observation in *Little Women* that "Girls are so queer you never know what they mean." It can also be used as a noun meaning, roughly, homosexual as in William F. Buckley's famous outburst to Gore Vidal, "Now listen, you queer, stop calling me a crypto-Nazi or I'll sock you in your Goddamn face." Finally, queer can be used as a verb meaning to spoil or ruin as in the British idiomatic expression "queer the pitch." Taking the delicious ambiguity of the term "queer" as our jumping off point, this course will consider "queer theory" and "queer politics" in all its valences. We will examine the history of the production of "queer" as a sexual and gender identity as well as some of the queer contemporary implications of this history. We will also consider a variety of theoretical interventions that attempt in various ways to "queer" politics and its fundamental concepts and categories including power, citizenship, the state, masculinity, femininity, and the public and the private.

POL 321 - International Law

4 Hour(s)

General Education S2 and CCD

This course covers the historical development, sources, principles, enactment and enforcement of international laws. Attention will be paid to the expansion of the field from its traditional focus on states to the inclusion of non-state actors such as International Organizations, Non-Governmental Organizations and individuals. Specific topics include: war and conflict, human rights, and environmental law. Readings and discussions review relevant decisions from both U.S. and international courts, utilizing the case method approach widely used in law schools.

SP, even years

POL 329 - The German Experience

4 Hour(s)

A research-oriented course examining modern German history. Emphasis is placed on the process of unification, the Nazi era, the GDR and reunification. Students planning to take POL 329 for their German language minor must contact the instructor (in the semester before they enroll in POL 329) to develop a plan for adapting coursework to incorporate and demonstrate appropriate use of the language.

FA, odd years

Prerequisite(s): Junior standing or consent of the instructor

POL 332 - Public Policy

4 Hour(s)

This course focuses on the formulation, implementation and evaluation of public policy. Emphasis is given to the variety of ways public goals are pursued by governments, especially within the United States. The class will explore a number of different policy areas as case studies.

SP, odd years

POL 336 - The American Presidency

4 Hour(s)

This course examines the origins, growth, and complexity of the American presidency. The constitutional role and historical developments of the Chief Executive will be considered in relationship to the meaning of democratic government, the separation of powers, and the expansion of public administration during the 20th century.

SP, even years

POL 344 - Constitutional Law and Politics

4 Hour(s)

A study of the interpretation of the United States Constitution by the Supreme Court; the role of politics on judicial interpretations and their influence in American government and society.

FA, even years

POL 381 - Internship in Politics

4 - 12 Hour(s)

FA, SP, SU

S/U graded

Prerequisite(s): Senior standing and at least a 2.5 grade point average in courses in the major

POL 382 - Internship in Global Studies

4 Hour(s)

FA, SP, SU

S/U graded

Prerequisite(s): Senior standing and at least a 2.5 grade point average in courses in the major

POL 391 - Topics in Politics

4 Hour(s)

Focused study of a topic of special concern to political scientists. Changing topics may be drawn from any area of politics.

Course may be repeated for credit. Two-credit Topics in Politics courses may not be counted toward a political science or global studies major or minor.

POL 398 - Independent Study in Politics

1 - 4 Hour(s)

FA, SP, SU

Prerequisite(s): Junior standing, approval of divisional dean and consent of instructor

POL 399 - Capstone in Political Science and Global Studies

4 Hour(s)

The political science/global studies capstone asks majors in these disciplines to formally demonstrate and integrate their substantive knowledge of political science or global studies through a significant research project, which they present in a public forum. The capstone also engages students in the process of transitioning from undergraduate life to advanced study or the workforce. Students develop transition plans and are encouraged to assess how their experiences at Carroll have prepared them

for the next steps in life - both professional and personal. Students are strongly encouraged to take POL 266 before enrolling in the Capstone course.

SP

Psychology

PSY 101 - Introductory Psychology

4 Hour(s)

General Education S1

An introduction to the science of behavior and mental processes. Emphasis is placed upon methods of inquiry utilized in the social sciences. These methods will be used to investigate psychological questions regarding topics such as perception and consciousness, learning, memory and thinking, biological and developmental processes, motivation and emotion, personality, social determinants of behavior, and mental health.

FA, SP

PSY 201 - Abnormal Psychology

4 Hour(s)

A study of major and minor psychological disorders. Consideration of classification issues and theoretical perspectives precedes an examination of research on genetic, biobehavioral and psychosocial determinants of stress reactions and psychological disorders. Consideration is also given to healthy adjustment and coping strategies as well as prevention and therapy options.

FA, SU

Prerequisite(s): PSY 101

PSY 206 - Developmental Psychology

4 Hour(s)

A study of the theories, research, and issues related to physical, intellectual, social and emotional development. Slight emphasis on children, including observational strategies for behavioral assessment of infants and children, are included.

SP

Prerequisite(s): PSY 101

PSY 211 - Industrial and Organizational Psychology

4 Hour(s)

The psychological study of factors related to people at work. Employee selection methods such as testing and interviewing, performance evaluations, job descriptions, statistical validation and decision techniques, motivation, leadership, satisfaction, job redesign and organizational development are examined.

FA, SU even years

Prerequisite(s): PSY 101

PSY 221 - Life-Span Psychology

4 Hour(s)

General Education S2

A comprehensive course with an applied emphasis which examines individual development throughout life. Topics such as genetic inheritance, intellectual change and social adjustment are viewed as processes that extend from the neonatal period through very old age.

FA, SP, SU

Prerequisite(s): PSY 101

PSY 228 - Consumer Behavior

4 Hour(s)

An applied psychology course focusing upon the behavior of the individual consumer. Concepts derived from perception, motivation, personality, learning and cognition are developed in the analysis of consumer decision-making. Theory and research in social media and on-line advertising is discussed.

SP, SU odd years

Prerequisite(s): PSY 101

PSY 240 - Biopsychology

4 Hour(s)

This course examines the biological substrates of the mind and behavior. Foundational to the course is an understanding of the electrochemical processing that occurs in and between neurons, with relevant applications to drug use, emotions, learning, memory, sleep, consciousness, sensory systems, evolution, and psychiatric disorders.

SP

Prerequisite(s): PSY 101

Note(s): Credit cannot be received for PSY 240 and PTH 5405.

PSY 260 - Health Psychology

4 Hour(s)

Based on the research of clinical, experimental social and health psychologists, this course examines how psychological, social, and biological factors affect health and illness. Topics include coping with stress and pain, psychoneuroimmunology, and living with chronic illness, such as diabetes, cardiovascular disease, or cancer. Emphasis is also placed on effective patient-clinician communication and on the modification of health-related behaviors.

SP, SU

Prerequisite(s): PSY 101

PSY 303 - Social Psychology

4 Hour(s)

This course reviews and critically examines the research findings of experimental social psychologists. Among the topics explored are attitude change, prejudice, conformity, altruism, aggression and group dynamics. Instructional emphasis will be on developing ideas for further needed social psychological research.

FA

Prerequisite(s): PSY 101 and PSY 205

PSY 306 - Psychological Testing and Assessment

4 Hour(s)

This course gives students a strong foundation in the technical and methodological principles of test construction and in the social and ethical implications of psychological testing. Students will learn criteria for selecting and critically evaluating tests. In addition, students will actually take and study in depth a number of widely used tests of personality, occupational interests, intelligence and values.

(Course fee required)

SP

Prerequisite(s): PSY 101 and CMP 114

PSY 307 - Experimental Psychology

4 Hour(s)

A research methods course in experimental science. Knowledge gained from PSY 205 is combined with laboratory exercises in physical control and measurement of variables. A class component covers experimental and quasi-experimental research methods. In addition, students conduct an individual experimental project and learn how to write research reports.

Four hours of lecture/discussion and one three-hour laboratory.

(Lab fee required)

FA, SP, SU

Prerequisite(s): PSY 101, CMP 114, and one additional four-credit 200-level PSY course taken at Carroll University

PSY 307L - Experimental Psychology Lab

0 Hour(s)

Laboratory component for PSY 307.

PSY 309 - Psychology of Gender

4 Hour(s)

Whether you realize it or not, gender likely plays a significant role in your everyday life.

Relying on psychological science, this course will help you understand and critically examine the ways in which sex and gender are defined and enacted at the intrapersonal, interpersonal, intergroup, and societal levels. This 4-credit course will provide you with the tools to think critically about the representation and enacting of gender within your everyday life.

SP

Prerequisite(s): PSY 101

PSY 314 - Learning and Animal Behavior

4 Hour(s)

A systematic survey of basic principles of learning and behavior in animals including humans. In the context of evolutionary psychology, attention is directed toward Pavlovian and instrumental conditioning, behavioral approaches to learning, species specific concerns, and motivation. Basic research is related to applied efforts in behavior modification and educational technologies.

FA, SP

Prerequisite(s): CMP 114

Note(s): Credit cannot be received for both PTH 314 and PTH 407.

PSY 316 - Thinking, Problem Solving, and Cognition

4 Hour(s)

A study of human intelligence. This course focuses upon cognitive processes and structures involved in perception, memory, critical thinking, problem-solving and creativity. Applications to effective study and reading comprehension are also examined.

FA, SP

Prerequisite(s): PSY 101

PSY 317 - Adult Development & Aging

2 Hour(s)

This course provides an introduction into the concept that adult development and aging is just one part of the life span. A person's chronological age as well as his or her life experiences are important considerations in understanding the person as a whole. A discussion of research methods used in adult development research will also be examined (e.g., age effects, cohort effects, and time-of-measurement). Normal development is emphasized; however, special human circumstances are also explored.

WN, SU

Prerequisite(s): PSY 101

PSY 321 - Personality - Theory and Assessment

4 Hour(s)

The personality theories of Freud, Jung, Erikson, Rogers, Cattell and others are examined using both textbook treatments and original works of the psychologists. Biological contributions to personality are also discussed. Various psychological assessments are used to help students examine aspects of their own personalities.

(Course fee required)

FA

Prerequisite(s): PSY 101

PSY 391 - Special Studies in Psychology

2 Hour(s)

One-time courses, offered as announced. Topics vary.

FA, SP, SU

Prerequisite(s): PSY 101

PSY 398 - Independent Study in Psychology

1 - 4 Hour(s)

FA, SP, SU

Prerequisite(s): PSY 101, Junior standing, approval of divisional dean and consent of instructor

PSY 401 - Behavioral Neuroscience

4 Hour(s)

Building on the introduction to the brain provided in PSY 240, this course examines deeper principles of brain function.

Understanding the brain at a deep level requires studying and manipulating models grounded in principles of brain function. In this course, students will systematically explore neural network models of learning, attention, memory, language, and higher-

level cognition.

FA

Prerequisite(s): PSY 101 and PSY 240, or consent of instructor

PSY 403 - Historical and Modern Viewpoints of Psychology

4 Hour(s)

This course prepares the psychology major for a career in or related to the major. It also integrates traditional subject matter of perception, learning, social and developmental processes, as well as intelligence, motivation and personality. Historical roots, contemporary issues, as well as career opportunities, form the bases of class activities. Students maximally benefit by taking the course as Juniors because assignments prepare students to apply jobs and/or graduate schools during Senior year

(Course fee required)

FA, SP

Prerequisite(s): Junior or Senior standing, and Psychology as a declared major

PSY 414 - Research Methods in Behavior Analysis

2 Hour(s)

This laboratory course will introduce students to behavior analytic research methods. Specifically, students will learn behavior recording techniques, methods of establishing interobserver agreement, and experimental methods for studying behavior change at the individual-level by conducting research with nonhuman-animal subjects

(Course fee required)

Fa, Sp

Prerequisite(s): PSY 314

PSY 416 - Applied Cognitive-Behavioral Therapy

4 Hour(s)

This course incorporates didactic and field observation components to introduce students to cognitive behavioral therapy (CBT) for the treatment of psychopathology in a behavioral health setting. Didactics provide foundational knowledge enabling students to begin identifying complex psychopathological presentations and conceptualize them from a cognitivebehavioral theoretical framework. Shadowing shifts on treatment units at Rogers Memorial Hospital allow students to observe and participate in the application of evidence-based treatments in a field setting. Successful completion of the course prepares students with the skills necessary for entry-level employment at Rogers Memorial Hospital as a residential counselor.

SP

Prerequisite(s): PSY major, PSY 201, PSY 221 or PSY 206, PSY 321, and instructor approval

PSY 480 - Internship in Psychology

2 - 4 Hour(s)

Provides majors contemplating a career in psychology or in related areas with supervised field experience.

FA, SP

Prerequisite(s): PSY 101, Junior standing and consent of instructor

PSY 492 - Research Seminar

4 Hour(s)

This course is required for those psychology majors who are in the university-wide honors program and is recommended for all psychology majors. Students conduct systematic empirical research in the context of a seminar directed and coordinated by a faculty member. Seminar discussion is focused upon a current topic and is largely confined to asking researchable questions, exploring the feasibility of student-generated research proposals and evaluating student research reports.

(Lab fee required)

FA, SP

Prerequisite(s): PSY 101, PSY 307 and CMP 114

Physical Therapy

PTH 5400 - Foundations of Professional Practice

2 Hour(s)

Fundamental concepts related to professionalism and the roles and responsibilities of the physical therapist are introduced. Emphasis is placed on professional practice expectations, including professional behavior and development, education and clinical reasoning. Practice management expectations include prevention/wellness/health promotion, management of health care delivery administration, consultation, and social responsibilities.

FA

PTH 5401 - Statistical and Research Methods

3 Hour(s)

This course introduces evidence-based practice and the theory and practice of research. The components and processes of statistical methodology and quantitative and qualitative research designs are emphasized. Learners access a variety of literature sources to develop a research question, proposes methods, and expected clinical outcomes, which are defended orally and evaluated by peers and faculty.

FA

PTH 5404 - Biomechanics

2 Hour(s)

This course integrates anatomy with mechanical principles to study and understand the causes and effects of forces acting on and produced by biological systems. Connective tissue properties and their relation to function and adaptation are discussed. The interactions of skeletal muscle, tendon, and general properties of human joints are analyzed in the context of normal human movement.

FA

PTH 5404L - Biomechanics Laboratory

0 Hour(s)

Laboratory component for PTH 5404.

PTH 5405 - Neuroscience

3 Hour(s)

This course is offered within the neurological track and introduces the nervous system and how behavior is produced from cellular change in the brain. The class will focus on understanding the fundamental anatomy and physiology involved in the pathways that connect neural activity with coordinated muscle movement. We will also cover relevant embryology, higher cognitive functions, and disease states.

SP

PTH 5405L - Neuroscience Laboratory

0 Hour(s)

Laboratory component for PTH 5405.

PTH 5406 - Exercise Physiology

2 Hour(s)

This course provides fundamental knowledge about the adaptability of human physiological systems in meeting a range of exercise demands. Areas covered include nutrition; energy transfer during rest and exercise; function of the cardiovascular, respiratory, and skeletal muscle systems including energy delivery & utilization and exercise performance; acute and chronic physiologic and performance effects of exercise; exercise prescription for healthy adults; and body composition/weight management. Research evidence regarding how exercise and physical activity impact health, performance, and disease is included.

FA

Prerequisite(s): Entry-Level Physical Therapy Program Standing

PTH 5406L - Exercise Physiology Laboratory

0 Hour(s)

Laboratory Component.

PTH 5408 - Introduction to Patient Management

3 Hour(s)

This course introduces students to basic clinical skills germane to the profession of physical therapy. Standard safety procedures, communication skills, fundamentals of body mechanics, positioning and draping, transfers, gait training, mobility aids, and wheelchair management are introduced and integrated into the patient-client management model. This course will also emphasize clinical reasoning using simple patient problems in order to prepare students for patient care experiences in future coursework and internships.

FA

Prerequisite(s): Entry level in DPT program, CPR and First-Aid certified

PTH 5408L - Introduction to Patient Management Laboratory

0 Hour(s)

Laboratory component for PTH 5408.

PTH 5412 - Tests & Measures

3 Hour(s)

This course emphasizes the clinical test and measure skills needed during patient/client examination. This course strongly emphasizes laboratory experiences where skills are practiced and content is applied to clinical examination procedures of multiple body systems.

SP

PTH 5412L - Tests & Measures Laboratory

0 Hour(s)

Laboratory component for PTH 5412.

PTH 5413 - Clinical Anatomy

3 Hour(s)

This course includes a comprehensive study of histology and gross anatomy. For content delivery, a regional approach will be utilized, but all major systems will be covered. Systems include musculoskeletal, neurological, cardiovascular, pulmonary, gastrointestinal, and genitourinary. Emphasis will be placed on clinical application. An overview of topographic and radiologic correlations will also be provided. Understanding of anatomy content will be obtained via lecture, gross anatomy lab, and independent reading.

FA

Prerequisite(s): Good standing in the Physical Therapy Program

PTH 5413L - Clinical Anatomy Laboratory

0 Hour(s)

Laboratory component for PTH 5413.

PTH 5414 - Advanced Kinesiology

3 Hour(s)

This course applies biomechanical concepts to joint specific and whole-body kinesiology. Musculoskeletal structure and function as they relate to the production of normal human movement are explored using a variety of analysis techniques. Palpation clinical skills are introduced and practiced. The course integrates concepts of posture, balance, and human movement, including gait analysis.

SP

PTH 5414L - Advanced Kinesiology Laboratory

0 Hour(s)

Laboratory component for PTH 5414.

PTH 5416 - Therapeutic Exercise

4 Hour(s)

This course presents fundamental knowledge about prescription of exercise for the purpose of improving neuromusculoskeletal and cardiopulmonary impairments. Areas covered include exercises for improved muscle strength, endurance, range of motion, flexibility, aquatic exercise, aerobic exercise, PNF, and neural mobilization techniques. Information on exercise prescription parameters, communication, documentation, and safety related to therapeutic exercise treatment will be emphasized.

SP

PTH 5416L - Therapeutic Exercise Laboratory

0 Hour(s)

Laboratory component for PTH 5416.

PTH 5460 - Clinical Pathology

2 Hour(s)

This course presents the foundational pathology, diagnosis, clinical course and management of various pathologic conditions most relevant to physical therapy practice. A systems approach is used to emphasize the etiology, pathophysiology, medical evaluation and treatment of diseases involving the cardiovascular, pulmonary, renal, hematologic, immune, integumentary, endocrine, gastrointestinal, neurologic, and musculoskeletal systems across the life span. Students will acquire an appropriate perspective on patient/client management for people who present with disease/pathology of body systems.

SP

Prerequisite(s): Good standing in the Physical Therapy program

PTH 5498 - Independent Study

1 - 3 Hour(s)

This course involves independent study of selected areas of physical therapy under the supervision of a faculty member.

Religion

REL 102 - Introduction to the Hebrew Bible

4 Hour(s)

General Education P1

An introduction to the history, literature, and interpretation of the Hebrew Bible/Old Testament. The course includes a study of the historical and cultural traditions of the ancient Israelites and the use of archaeological, historical, and literary methods in studying the Hebrew Bible literature.

REL 103 - Intro to the New Testament

4 Hour(s)

General Education P1

An introduction to the history, literature, and interpretation of the New Testament. The course includes the study of the Jewish and Greco-Roman historical backgrounds of Jesus and the earliest church and the use of historical, sociological, and literary methods to examine the New Testament writings.

FA, SP

REL 106 - Understanding Religion

4 Hour(s)

General Education P1

We can describe religion; we can compare our own experiences with one another; we can watch other people when they are being 'religious'; we can see films, listen to music, look at advertising and watch news reports to discover where religion shows up, but what does it take to actually define religion? To begin the task of defining religion in this course, we will consider what religious people do, including: creating rituals, reading sacred texts, making sacred spaces, using special language, behaving ethically and sometimes behaving violently. We will look at ideas and practices across religious traditions but this is not a course in religions of the world. Rather, it is an introduction to the big ideas and common practices that help define what religion is.

FA, SP

REL 201 - Jesus of Nazareth

4 Hour(s)

General Education P1

A study of Jesus in his first-century historical context as a Jew and in the different literary contexts of the New Testament (e.g. the Gospels, Paul, Revelation). The course will also include an examination of how Jesus is interpreted in today's global context (e.g. Africa, Latin America, Asia, and North America).

FA

REL 202 - Religious Traditions in America

4 Hour(s)

General Education P1

A variety of religious traditions has played and continues to play important roles in our communities, small and large. This course focuses on the origins of contemporary religious traditions in the US, their basic beliefs, and their impact on life. The course may include presentations by local representatives of traditional faiths as well as more recent developments, and may involve visits for participants' exposure to new religious experiences.

SP

REL 206 - Asian Religions

4 Hour(s)

General Education P1 and CCD

In this course, students will explore the sacred literature, practices and cultures of Islam, Buddhism, Hinduism, Jainism, Sikhism, Confucianism, and Taoism.

FA, odd years

Prerequisite(s): Sophomore standing or consent of the instructor

REL 208 - Introduction to Buddhism

4 Hour(s)

General Education P2

This course provides an introduction to the academic study of Buddhism and its manifestations in different areas of the world. It

will survey the historical development of Buddhism and its core religious and philosophical principles - its theory of liberation, cosmology and ethics. Building on these foundations, the course will present significant case studies of contemporary Buddhism drawn from around the world (e.g.: Thailand, Burma, Sri Lanka, Taiwan, United States). Through the analysis of these selected cases, students will have an opportunity to study how different Buddhist traditions have adapted and reacted to a modern and globalized world. By investigating these attempts at survival and promotion in the contemporary global context, students will explore the challenges of perpetuating tradition and orthodoxy, and the emerging commercialization of Buddhism in the name of its survival as a significant world religion.

SP

REL 210 - Suffering and Hope

4 Hour(s)

General Education P1 and CCD

An in-depth examination of the theme of suffering and hope through a survey of foundational primary texts and contemporary theologies in different cultural and religious traditions. Students will learn several major perspectives on suffering and hope, explore assumptions that are made regarding suffering, and examine the ethical implications of the different views of suffering.

FA, odd years

Prerequisite(s): ENG 170 recommended prior to enrollment

REL 216 - Judaism, Christianity, and Islam

4 Hour(s)

General Education P1 and CCD

In this course students will explore the foundational texts, histories, beliefs, and practices of the three western monotheistic religions: Judaism, Christianity and Islam. An emphasis will be placed on learning each of the three traditions on their own as well as the variety of perspectives expressed within each tradition. A comparative study on several topics will also be included. Some contemporary issues and conflicts involving these traditions will be explored.

REL 220 - Health and Religion

4 Hour(s)

General Education P1 and CCD

This course examines the relationship between health, healthcare and religion in different world cultures (Western, traditional Indian, Chinese, Middle Eastern and a selection of indigenous systems across the world). It examines different worldviews and their understanding of health, medicine, and questions such as the role of spirituality in health and healthcare, religious and medical approaches to illness and suffering, and the integration of traditional medico-religious approaches in contemporary healthcare.

REL 224 - Religion and Literature

4 Hour(s)

General Education P1 and CCD

This course asks students to understand literature from around the world in the context of religious texts, traditions, and practices. Students will also approach religious texts as literature contributing to both literary and religious traditions. This twin perspective provides students a unique and accessible window into religious life and encourages them to understand living cultures as constantly producing their religiosities. Students will consider Western and non-Western literature and religions as distinct but

also as in conversation with each other.

SP, odd years

REL 230 - Foundations of Christianity

4 Hour(s)

General Education P1

This course examines Christian teachings about God, Christ, and Salvation developed from 100 to 1650 C. E. The study of the concepts, practices, and experiences of this formative period of Christianity is background for a critical understanding of Christianity in our times.

REL 291 - Topics in Religious Studies

4 Hour(s)

A study of a selected topic in religious studies that is not covered in regular course offerings. Different topics in the fields of Bible, theology, history, ethics and current issues in culture and religion will be offered.

REL 298 - Independent Study in Religious Studies

1 - 4 Hour(s)

A course for students who are interested in working with a faculty member on a specific area of study.

FA, SP

Prerequisite(s): Junior standing, approval of divisional dean and consent of instructor

REL 308 - Philosophy of Religion

4 Hour(s)

General Education P2

This is an advanced introduction to the main issues in the philosophy of religion. Topics that may be covered are the rationality of religious belief, cognitive experience of the divine, the compossibility of divine attributes, the efficacy of prayer, the problem of evil, and other issues that arise in philosophical theology.

SP, odd years

Also Offered As: PHI 308

REL 310 - Powers, Politics, and Pluralism in Biblical Interpretation

4 Hour(s)

General Education P2 and CCD

This class examines how the Bible has been interpreted to support certain positions regarding politics, class, race, gender, and sexual orientation. The class will explore how the Bible has been interpreted in global contexts and will focus in particular on how those in the United States have read and lived out the Bible through history. Topics may include slavery, roles of women, politics, same-sex relations, class relations, postcolonialism, anti-Semitism, end-time beliefs, and religious cults.

REL 315 - Women in Religion

4 Hour(s)

General Education P2 and CCD

A reading of world religions through the lens of women's experience. In studying religions such as Hinduism, Islam, Buddhism, Christianity, and Judaism, we will not only discuss the essential teachings of the religion but we will consider how women have changed those teachings and the backlash against them for it.

FA, even years

REL 362 - New Testament Greek Tutorial

2 Hour(s)

Independent study with instructor. Specifically offered for those planning to attend graduate school in religious studies. Does not count toward major or minor.

Offered when requested

S/U graded

REL 364 - Hebrew Tutorial

2 Hour(s)

Independent study with instructor. Specifically offered for those planning to attend graduate school in religious studies. Does not count toward major or minor.

Offered when requested

S/U graded

REL 380 - Internship in Religious Studies

1 - 4 Hour(s)

An opportunity for students to work for local churches, social service agencies or other appropriate institutions under faculty supervision. The program provides practical experience supported by study and reading. The student may choose to participate in the program for a semester or a year.

The work is S/U graded

Prerequisite(s): Consent of the instructor

REL 391 - Topics in Religious Studies

4 Hour(s)

A study of a selected topic in religious studies that is not covered in regular course offerings. Different topics in the fields of Bible, theology, history, ethics and current issues in culture and religion will be offered.

REL 398 - Independent Study in Religious Studies

1 - 4 Hour(s)

A course for students who are interested in working with a faculty member on a specific area of study.

FA, SP

Prerequisite(s): Junior standing, approval of divisional dean and consent of instructor

REL 480 - Internship in Religious Studies

1 - 4 Hour(s)

An opportunity for students to work for local churches, social service agencies or other appropriate institutions under faculty supervision. The program provides practical experience supported by study and reading. The student may choose to participate in the program for a semester or a year.

The work is S/U graded

Prerequisite(s): Consent of the instructor

REL 499 - Capstone: Senior Seminar

4 Hour(s)

Seniors research and write a substantial research paper which demonstrates their competency in religious studies and their ability to incorporate general education skills. Students will also give an oral presentation of the paper to faculty and interested students. As part of the seminar, students are required to complete an intentional plan for their transition from undergraduate school to a career and/or to graduate/professional school.

Prerequisite(s): Senior standing

Sociology

SOC 101 - Introduction to Sociology

4 Hour(s)

General Education S1

Introduction to the Sociological Imagination. Learn sociological concepts, explanations, and research findings to better understand the society in which you live and your place in it. Topics include: culture, inequality, social relationships, deviance, membership in groups and social institutions such as education, religion and the family.

FA, SP

SOC 102 - Sociology of Social Problems

4 Hour(s)

General Education S1

A survey and analysis of major problem areas in contemporary American society, including areas such as drug use and abuse, family issues, poverty, crime, delinquency, environmental issues and war.

FA, SP

SOC 110 - Cultural Anthropology

4 Hour(s)

General Education S1 and CCD

The study of literate and non-literate cultures from throughout the world using basic anthropological concepts. Explores descriptive data from a variety of cultures and the general patterns that exist across cultures. Includes topics such as culture,

language, subsistence, stratification, family, kinship, descent, religion, social control and cultural change.

FA, SP

Prerequisite(s): ENG 170 is recommended prior to enrollment

SOC 114 - Social Science Statistics

4 Hour(s)

CMP 114 equivalent - B.S. Requirement. Social science statistics is a course that opens an appreciation and understanding of basic statistical tools and means of analysis for the social world. It can act as an alternative for CMP 114 in the Bachelor of Science requirements. It covers topics such as descriptive statistics, frequencies, building graphical data, and hypothesis testing through analysis of variance (ANOVA), t-tests, chi-square, and regression. It teaches you the basics of SPSS data analysis tool using social science examples relevant to majors in such areas as sociology, criminal justice, communication, political science, and global studies.

FA,SP

Prerequisite(s): CMP 112

SOC 130 - Culture and Crime

4 Hour(s)

General Education S1

This course examines the American culture and society to understand why and how it perpetuates criminal lifestyles. It illustrates how America's vision of economy, morality, and race determines how the criminal justice system operates, the policies the criminal justice system follows, and the creation of criminal statistics. In essence, it helps form the notion that crime and criminals are a product of society and culture. This class is a general distribution course and does not count towards the criminal justice major or minor.

SP

SOC 202 - Society and Ecology

4 Hour(s)

General Education S2

This course examines the relationships between the cultural and structural patterns of society and the ecosystem. The course focuses on a critical examination of contemporary social systems and their relationships to the natural environment. It investigates the role culture plays in affecting human relationships with the earth and how the belief systems of a people shape their perspective regarding the role of humans in the natural world. Students identify and examine parameters of sustainable social systems.

SP

Prerequisite(s): SOC 101 or SOC 102

SOC 203 - Criminal Procedure, Evidence and Investigation

4 Hour(s)

Introduces principles of evidence and techniques of investigation. Includes constitutional limitations on arrest, search and seizure, the exclusionary rule, interrogation and confessions. Identifies problems of evidence gathering and presentation as well as basic skills and procedures of criminal investigation. May not be counted toward a sociology major or minor.

FA

Prerequisite(s): SOC103, and Junior standing

SOC 213 - Race and Ethnicity Studies in Sociology

4 Hour(s)

General Education S2 and CCD

This course examines the historical and present role of various races and ethnicities in the criminal justice system. Readings and discussions focus on the statistics and disparities found in arrests, charging, convictions, and sentencing. The course provides rationales for why racial and ethnic minorities appear to be less privileged by systems including law, discrimination, and poverty.

FA

Prerequisite(s): SOC 101, SOC 102 or CRJ 103

SOC 215 - Social Gerontology

4 Hour(s)

This introduction to the field of gerontology will provide a comprehensive overview of aging using a sociology lens. This course studies the process of growing older and how society responds to the issues of aging from multiple interdisciplinary perspectives. Focus will be giving to the ways in which sociological theories and research discredit myths about older adults including: diversity, family life, health, retirement, housing, senior programs and services, and death and dying.

SP, odd years

SOC 235 - Gender and Society

4 Hour(s)

Gender, communication and sociology go hand-in-hand-in-hand. We understand our own gender and attribute gender to others through words and symbols accepted in our society. This class is an opportunity for you to learn about some of the ways in which gender is constructed and performed within and across multiple cultural categories. Based on the concept of intersectionality, we will look at how communication is used to create, establish, and normalize gender and gender roles within racial, ethnic, sexuality, and socioeconomic class boundaries. We will invoke our sociological imaginations to understand what these constructions mean on the larger stage of society and how we can envision other meanings that might create other outcomes. We will take a critical and in-depth look at the world around us to see the complexity in our often taken-for-granted experiences as gendered people.

FA, even years

SOC 266 - Methods of Social Science Research

4 Hour(s)

A study of the way social science explores, describes, and explains human social life and the social world. This class is developed for anyone interested in understanding social science techniques including majors of sociology, criminal justice, and political science. This course includes lectures and active learning techniques to develop research skills of reading and critiquing research articles, creating literature reviews, analyzing data, and developing appropriate methodologies.

Prerequisite(s): Sophomore standing or above

SOC 291 - Special Topics in Sociology

4 Hour(s)

Study of a selected topic in sociology that is not covered in regular course offerings. Generally takes a lecture and discussion format. The topic will be announced prior to registration.

Prerequisite(s): SOC 101 or SOC 102

SOC 298 - Independent Study in Sociology

4 Hour(s)

A course for students who have completed the necessary background courses in a specific area and wish to work with a faculty member to extend their study in that area. Students considering this course must get the approval of the divisional dean and consent of the instructor during the previous semester at least two weeks prior to registering for the course. Results of the study will be presented to the sociology faculty.

FA, SP, SU

Prerequisite(s): Sociology major, junior standing, and consent of the instructor

SOC 301 - Social Change and the Future of Society

4 Hour(s)

A general examination of the topic of social change. This course studies the role of social change in the development of societies, the consequences of social change for contemporary societies, and how change in various areas of society might affect life in the future.

FA, odd years

Prerequisite(s): SOC 101 or SOC 102

SOC 302 - Complex Organizations and Work Life

4 Hour(s)

Analyzes organizations, work life and their relationship to sustainability. Explores types of organizations, the changing nature of work, work/family conflicts, and how organizations impact workers and societies worldwide. Examines sustainable careers-- especially through lab exercises.

FA

Prerequisite(s): SOC202

SOC 308 - Sociological Theory

4 Hour(s)

An examination of the foundations and development of sociological theory from its beginning to the present. Explores the major theories and schools of thought and the relationship between theory and research through the works of important classical and contemporary sociological theorists.

SP

Prerequisite(s): SOC 101 or SOC 102 and junior standing

SOC 323 – Court Processes, Decisions, and Ethics

4 Hour(s)

The class discusses the role of ethical decision making by court room actors throughout the court processes of pretrial, trial, and sentencing. Through reading, guest speakers, field explorations, and case studies you will analyze and decode ethical actions and decisions of the court.

Prerequisite(s): SOC103

SOC 332 - White Collar and Environmental Crime

4 Hour(s)

Examines cultural, societal, and ecological aspects of white-collar and environmental crime using rational-choice theory, social constructionism, environmental justice, and other criminological and sociological theoretical perspectives. Explores questions about white-collar and environmental crime such as their forms, data sources, offenders, victims and costs, and societal, regulatory, and criminal justice responses. Students analyze selected case study on topics ranging from financial crimes and nursing home fraud to poaching, corporate environmental illegalities, and global environmental crimes. Suitable for majors in sociology, criminal justice, political science, business, public health, health care administration, environmental science, animal behavior, and others.

Prerequisite(s): SOC 101 Introduction to Sociology or SOC 102 Social Problems

SOC 346 - Survey Design and Analysis in the Social Sciences

4 Hour(s)

Survey says... what exactly? Can any public opinion polls be trusted? Are all survey statistics just lies, lies, and more lies? Explore how survey research methods are used to obtain empirical data on the cultural and societal dimensions of social issues, the economy, politics, religion, science, and the environment . Learn how to assess reports of survey data, construct questionnaires, and interpret survey results. Design an original survey to distribute with a sample of your choosing. Develop skills needed to: make data-based decisions in organizational leadership and corporate or ecosystems management; use survey data in career or policy decisions; and prepare for graduate school research. This applied survey analytics course is for sociology, criminal justice, communication, and political science majors, or those also majoring in business, education, public health, biology, environmental science, and health sciences interested in exploring cultural and human dimensions of societal or environmental issues via social science survey research data.

FA odd years

Prerequisite(s): SOC/POL 266 OR COM 150, OR equivalent research methods course and consent of instructor

SOC 380 - Internship in Applied Sociology

4 Hour(s)

An opportunity for majors to work as a sociologist in a designated institution or agency under faculty supervision. Students considering this course must consult with their program adviser during the semester preceding the internship.

FA, SP

Prerequisite(s): Junior standing, SOC 311, and consent of the instructor

SOC 391 - Special Topics in Sociology

4 Hour(s)

Study of a selected topic in sociology that is not covered in regular course offerings. Generally takes a lecture and discussion format. The topic will be announced prior to registration.

Prerequisite(s): SOC 101 or SOC 102

SOC 398 - Independent Study in Sociology

4 Hour(s)

A course for students who have completed the necessary background courses in a specific area and wish to work with a faculty member to extend their study in that area. Students considering this course must get the approval of the divisional dean and consent of the instructor during the previous semester at least two weeks prior to registering for the course. Results of the study will be presented to the sociology faculty.

FA, SP, SU

Prerequisite(s): Sociology major or minor, junior standing, and consent of instructor

SOC 399 - Capstone in Sociology

4 Hour(s)

Students will review their education experience as sociology majors and explore career paths. Assignments include readings that recap sociology as a field of study and writings that consider the relevance of sociology to professional and social life.

SP

Prerequisite(s): Senior standing

Spanish

SPA 101 - Elementary Spanish I

4 Hour(s)

A beginning course designed to introduce the student to the basic skills of understanding, speaking, reading and writing the Spanish language. Introduction to Hispanic cultures, politics, history, and literature through texts in English or in English translation from Spanish. Weekly out-of-class discussion sections. Conducted primarily in Spanish.

FA

SPA 102 - Elementary Spanish II

4 Hour(s)

A beginning course designed to introduce the student to the basic skills of understanding, speaking, reading and writing the Spanish language. Introduction to Hispanic cultures, politics, history, and literature through texts in English or in English translation from Spanish. Weekly out-of-class discussion sections. Conducted primarily in Spanish.

FA, SP

Prerequisite(s): SPA 101 or consent of the instructor

SPA 201 - Intermediate Spanish I

4 Hour(s)

Review of basic phonetic elements and syntax as an aid to improvement and expansion of good pronunciation and composition. Introduction to Hispanic cultures. Weekly out-of-class discussion sections. Conducted in Spanish.

FA, SP

Prerequisite(s): SPA 102 or consent of the instructor

SPA 202 - Intermediate Spanish II

4 Hour(s)

Review of basic phonetic elements and syntax as an aid to improvement and expansion of good pronunciation and composition. Introduction to Hispanic cultures. Weekly out-of-class discussion sections. Conducted in Spanish.

FA, SP

Prerequisite(s): SPA 201 or consent of the instructor

SPA 290 - Spanish for Health and Human Services

2 Hour(s)

Focus on health and human service vocabulary, language skills for professional communication, and cross-cultural awareness in order to communicate effectively, both formally and informally. Students participate in hands-on, experiential learning opportunities in the community. Conducted in Spanish.

SP

Prerequisite(s): SPA 202 or consent of instructor

SPA 298 - Independent Studies in Spanish

4 Hour(s)

Written proposals of projects must have the prior approval of the divisional dean and consent of the instructor prior to registration.

FA, SP

Prerequisite(s): Junior standing and written consent of instructor required for registration

SPA 300 - Hispanic Linguistics

4 Hour(s)

This course is designed for students without any background or previous knowledge of linguistics. The course content focuses on the analysis of the basic linguistic characteristics of the Spanish language. It introduces students to the study of the Spanish sound system (phonetics and phonology), formation of words (morphology), sentence structure (syntax) and meaning (semantics and pragmatics). This course concludes with language variation and changes from diachronic (from Latin to contemporary Spanish) as well as synchronic (current regional dialects) perspectives.

FA,even years

Prerequisite(s): SPA 202

SPA 301 - Conversation and Composition I

4 Hour(s)

Practice in conversation and composition with emphasis on new and technical vocabulary. Functional grammar review. Reading, discussion and interpretation of more challenging literary texts. Reinforcement of basic linguistic elements such as phonetics and syntax as an aid to further refinement of the four language skills. Conducted in Spanish.

FA, SP

Prerequisite(s): SPA 202 or consent of the instructor

SPA 305 - Spanish for the Professions

4 Hour(s)

This course introduces students to the vocabulary and discourse appropriate to the professions. It develops communicative skills for professional situations (speaking, listening, comprehension, reading, writing, translation, interpretation, and computer skills) and provides cultural and cross-cultural awareness. Students prepare oral and written reports. Conducted in Spanish.

SP

Prerequisite(s): SPA 202

Note(s): Not to be taken in conjunction with SPA 325.

SPA 307 - Latin American Civilization

4 Hour(s)

General Education H2 and CCD

Lectures and discussion on Latin American cultural history and trends, particularly as they relate to the arts, political thought, and economics. Conducted in Spanish.

FA, odd years

Prerequisite(s): SPA 202

SPA 308 - Hispanic Civilization

4 Hour(s)

General Education H2 and CCD

Lectures and discussion on Hispanic cultural trends, particularly as they relate to the arts, political thought, and economic conditions. Topics will focus on social movements in Spain or Spain's impact on Latin America, the Caribbean, and the United States. Conducted in Spanish.

FA, even years

Prerequisite(s): SPA 202

SPA 309 - Introduction to Hispanic Literature

4 Hour(s)

The aim of this course is to examine and discuss several important and current social issues through different genres of Spanish literature. This course provides students a variety of opportunities to develop their competence in Spanish through a wide range of skills, with emphasis on critical reading and analytical writing, with requirements for listening and speaking in Spanish. It also encourages students to reflect on the voices and cultures included in a rich and diverse body of literature written in Spanish. Conducted in Spanish.

FA, odd years

Prerequisite(s): SPA 202

SPA 311 - Medical Spanish

4 Hour(s)

This course will focus on the acquisition or expansion of a specialized vocabulary and technical terminology relevant to the field of health care interpreting. It will introduce the student to the prevalent modes of interpreting in health care and aspects of interpretive theory; including the techniques of sight, consecutive and simultaneous interpretation (in drills from English to Spanish and vice-versa). Students will develop improved listening skills required for effective interpreting as well as participate in drills that will help increase recall and short-term memory. These practice drills and simulations will be designed to

approximate as closely as possible the challenges faced by medical interpreters, and will expose the student to a variety of interpreting settings that they might encounter: hospitals, clinics, doctors' offices, mental health facilities. Students will also be required to complete a minimum of ten hours service learning at an assigned site.

FA, SP

Prerequisite(s): SPA 301 or consent of the instructor

SPA 319 - Hispanic Cultural Studies through Journalism and Literature

4 Hour(s)

This course strengthens skills already learned in Spanish courses by integrating elements of print journalism interviewing, writing and editing. It also expands the cultural knowledge of the students by focusing on their writing on themes of cultural relevance. Conducted in Spanish.

SP

Prerequisite(s): SPA 301 or consent of the instructor

SPA 325 - Spanish for the Professions

4 Hour(s)

This upper-intermediate level course will allow students to explore the diverse career possibilities available to those proficient in Spanish. Building upon previous knowledge of the Spanish language, students will expand their communication, reading, videos, oral presentations, written reports, projects and a variety of interactive activities will expand cross-cultural awareness as well as increase familiarity with the language. During spring break, students will travel to Lima, Peru, to complete volunteer work related to their field(s) of interest. Both pre- and post-reflection will compliment reflection completed during the immersion experience.

SP

Prerequisite(s): Pre-requisite SPA 202

Note(s): Not to be taken in conjunction with SPA 305.

SPA 398 - Independent Studies in Spanish

2 - 4 Hour(s)

Written proposals of projects must have the prior approval of the divisional dean and consent of the instructor prior to registration.

FA, SP

Prerequisite(s): Junior standing and written consent of instructor required for registration

SPA 401 - Advanced Conversation

2 Hour(s)

A panorama of customs, life styles, attitudes, and cultural achievements of the Spanish speaking people today. Emphasis on informal conversation with individual interests and projects encouraged. Includes oral and written reports as well as grammar and syntax review. Conducted in Spanish.

(May be taken twice.)

SP

Prerequisite(s): SPA 301 or consent of instructor

SPA 402 - Spanish and English Translation in Professional Settings

2 Hour(s)

This course is an introduction to translation as an academic discipline in professional contexts. Students learn common methods and basic terminology. Students become proficient in translation terminology and learn to identify certain challenges involved in intercultural communication. They explore and contrast linguistic structures in Spanish and English. Documents in a variety of disciplines are studied, prepared, and discussed to enable students to perform successfully in real translation situations (legal, medical, financial and commercial, technical and literary documents.) Students will practice vocabulary choice, stylistic matching and editing and learn to identify typical translation challenges. Intermediate-high proficiency in Spanish. Methods for determining the proficiency level may include oral interview, a written test, and a writing sample. Recommended for heritage speakers of Spanish in particular as a substitute for SPA 401 (Advanced Conversation).

Prerequisite(s): SPA 301 or Consent of Instructor

SPA 480 - Internship/Capstone Internship in Spanish

2 - 4 Hour(s)

Applications of foreign language and culture using language skills in professional settings. This course may also serve as a culminating capstone experience. Facilitates transition from university to career or graduate school through the creation of a resume and portfolio, as well as experience with employment interviews and/or submission of application to graduate school.

FA, SP
S/U graded

Prerequisite(s): SPA 301 plus one other 300-level elective, or consent of the instructor.

SPA 498 - Independent Directed/Capstone Study

2 - 4 Hour(s)

Intensive reading in a specific area of Spanish or Spanish-American literature or culture. Weekly conference conducted in Spanish. Eight credits maximum may apply toward degree. This course may also serve as a culminating capstone experience for seniors. Facilitates transition from university to career or graduate school through the creation of a resume and portfolio, as well as experience with employment interviews and/or submission of application to graduate school. Written proposals of projects must have the prior approval of the divisional dean and consent of the instructor prior to registration.

FA, SP
Prerequisite(s): Consent of the instructor.

Sports Administration

SPAD 480 - Internship in Sports Administration

12 Hour(s)

The purpose of this course is to enhance and develop personal growth in Sport Administration knowledge, ethical behaviors, career development, interpersonal skills, problem solving abilities, and personal responsibilities through participation in an internship at a sport industry organization. During the internship, students will spend 480 total hours developing, implementing, and administering Sports Administration programming at a Carroll approved organization. During the internship, students will come together for seminars.

FA, SP, S2
Prerequisite(s): SPD 406 , SPD 408 and SPD 410

SPD 406 - Sports Marketing and Finance

4 Hour(s)

This course investigates principles and processes in sports marketing and sales. The main focus will be on research and development, sport promotion, sport sponsorship, advertising, merchandising, and distribution of sporting goods. This course will also provide students with an understanding of the basic concepts that underlie financial management and an ability to apply these concepts to the analysis of financial issues within the sports industry.

FA

SPD 408 - Sport Facilities and Event Management

4 Hour(s)

This course provides students practical competencies necessary to effectively manage sport in g facilities and events. Includes theoretical discussions and hands-on experience.

SP

SPD 410 - Athletic Administration

4 Hour(s)

Students in this course will explore principles, techniques and process related to the management of athletics programs. It is important in today's dynamic environment of athletics that students value effective leadership and management principles. Through analyzing content and discussion, students will demonstrate problem solving related to handling athletic personnel and program issues. Studying athletic administration involves interpreting NCAA and NFHS By-laws, including a comparison between college and high school compliance regulations. To ensure readiness for athletic management, students will evaluate the duties of an athletic director and create a strategic plan for an athletic department, including a mission statement and comprehensive budget. Lastly, students will characterize the critical steps to getting hired in collegiate and high school athletics. Student will also prepare a portfolio, including an application letter and resume customized for applying for a position in athletic administration at the collegiate and high school level.

SP

Theatre

DNC 111 - Introduction to World Dance

4 Hour(s)

General Education F1

Examination of movements in dance within the context of world cultures. This course will include the analysis and practice of dance techniques from various cultures.

FA

DNC 201 - Concert Dance I

2 Hour(s)

Basic dance techniques and various movement combinations as related to contemporary and modern forms of concert dance. The focus of the course is on physical warm-ups and the actual practice and performance of these specific techniques and combinations.

SP alternate years

Prerequisite(s): DNC 111 or consent of instructor

DNC 202 - Concert Dance II

2 Hour(s)

Intermediate dance techniques and various movement combinations as related to contemporary and gestural forms of concert dance. The focus of the course is on physical warmups and the actual practice and performance of these specific techniques and combinations.

SP alternate years

Prerequisite(s): DNC 201 or instructor consent

DNC 205 - Jazz Dance I

2 Hour(s)

Basic dance techniques and various movement combinations as related to jazz and hip-hop forms of theatrical dance. The focus of the course is on physical warm-ups and the actual practice and performance of these specific techniques and combinations.

FA Alternate Years

Prerequisite(s): DNC 111 or instructor consent

DNC 206 - Jazz Dance II

2 Hour(s)

Intermediate dance techniques and extended movement combinations as related to jazz and tap forms of theatrical dance. The focus of the course is on physical warm-ups and the actual practice and performance of these specific techniques and combinations.

FA Alternate Years

Prerequisite(s): DNC 205 or instructor consent

DNC 211 - Theatre Dance

4 Hour(s)

General Education F2

Exploration of various dance styles within the context of dance performance. This course will include the analysis and practice of dance techniques from various periods of theatrical dance.

SP

Prerequisite(s): DNC 111

THE 100 - Theatre Participation

1 Hour(s)

Participation in either Mainstage or Studio Season theatre productions as an actor or technician.

FA, SP

Prerequisite(s): consent of instructor

THE 101 - Introduction to Theatre Arts

4 Hour(s)

General Education F1

Survey course focusing on the development of theatre, as well as an investigation of the literature and the practitioners of the art form. Course activity includes theatre performance field trips, reading of plays and oral and/or written theatre criticism.

FA, SP

THE 101L - Performance Field Trips

0 Hour(s)

Laboratory component for THE 101.

THE 102 - Introduction to Performance

4 Hour(s)

General Education F1

This course focuses on the interpretation, and presentation of various forms of dramatic and traditional literature. Students will become familiar with the basic principles of rhetorical and dramatic analysis and participate in the preparation and performance of many styles of texts, from prose to poetry as well as dramas and more formal literature.

FA, SP

THE 120 - Costume Construction & Makeup

2 Hour(s)

Student participation in running or preparing the technical aspects of Theatre Arts Program Mainstage or Studio productions.

FA even years

THE 121 - Set Construction & Lighting

2 Hour(s)

Student participation in running or preparing the technical aspects of Theatre Arts Program Mainstage or Studio productions.

FA odd years

THE 200 - Theatre Workshops

1 - 2 Hour(s)

Intensive practical work in various specialized topics within the Theatre Arts. Course may be repeated as topics will vary.

(Required course fee)

THE 215 - Theatre History and Literature I

4 Hour(s)

General Education F2 and CCD

The traditions of the Euro-American theatre are investigated in terms of theatre conventions and drama of the various periods.

FA

Prerequisite(s): THE 101 or THE 102 or consent of instructor

THE 216 - Theatre History and Literature II

4 Hour(s)

General Education F2 and CCD

Concentration upon North American and European drama, Asian, Latin American and African theatre conventions and drama are presented.

SP

Prerequisite(s): THE 101 or THE 102 or consent of instructor

THE 260 - Arts Management

4 Hour(s)

An introduction to the theory and practice of arts administration. The course offers historical perspective for the position of the arts in the economy, education, and public policy in the United States and shares a basic framework for developing organizational vision, planning methods, fundraising, marketing approaches and fiscal management. Students are introduced to local arts organizations, their goals and challenges.

SP

THE 291 - Special Studies/Topics in Theatre

1 - 4 Hour(s)

Study of a selected topic not covered in regular course offerings. The topic will be announced prior to registration. Four credits maximum will apply toward degree.

THE 296 - Special Studies/Research in Theatre

1 - 4 Hour(s)

Advanced research allows individual students or groups of students to undertake special projects related to their program emphasis. Four credits maximum will apply toward degree.

Prerequisite(s): Approval of the divisional dean, departmental chair, and consent of instructor

THE 298 - Independent Study in Theatre

1 - 4 Hour(s)

Independent study of selected areas under the supervision of one or more members of the faculty. Required for program honors.

FA, SP

Prerequisite(s): Approval of the divisional dean departmental chair and consent of the instructor

THE 300 - Theatre Practicum

1 Hour(s)

Supervised production work in the areas of theatre administration, stage management, scenery, lighting, costuming, or performance.

FA, SP

Prerequisite(s): consent of instructor

THE 301 - Contemporary Acting Styles

4 Hour(s)

Explores advanced techniques of acting, voice, and movement for use in modern theatre genres.

Prerequisite(s): THE 102 or consent of instructor

THE 302 - Period Acting Styles

4 Hour(s)

Explores advanced acting, voice, and movement techniques for use in classic theatre genres.

Prerequisite(s): THE 102 or consent of instructor.

THE 307 - Directing for the Stage

4 Hour(s)

Practical course in directing for the stage, focusing on script analysis, script preparation, casting concerns, staging techniques, and design strategies, culminating in a directorial concept presentation based on a contemporary play.

Prerequisite(s): THE 101 or consent of instructor

THE 308 - Writing for the Stage

4 Hour(s)

Practical course in writing for the stage, including a study of basic dramatic structures and the analysis of weekly writing assignments, focusing on structure, style, and imagination, and culminating in a final term project of a one-act play.

Prerequisite(s): THE 101 or consent of instructor

THE 311 - Acting for the Camera

2 Hour(s)

Exploration of the techniques necessary to successfully audition, act, and perform for the camera.

FA even years

THE 312 - Directing for the Camera

2 Hour(s)

Exploration of screen-directing fundamentals, including ways in which the development of a shooting script, camera placement, actor-direction and various technical/visual storytelling tools can fulfill the director's vision.

FA odd years

THE 313 - Writing the Short Film

4 Hour(s)

A practical, workshop-style course in writing short films, including a study of basic short film history, structures and concepts, as well as how to navigate the short film festival application and submission process.

Prerequisite(s): COM 317 or ENG 288

THE 314 - Writing for Television

4 Hour(s)

A practical, workshop-style course in writing for television, including a study of television history, structures and concepts, along with techniques for breaking into, and surviving, the "business of television."

SP odd years

Prerequisite(s): COM 317 or ENG 288

THE 380 - Internship in Theatre Arts

1 - 4 Hour(s)

Professional work experience under supervision of selected theatre faculty and professionals; written report required. Instructor approval required prior to registration.

FA, SP, SU

THE 390 - Theatre Projects

1 - 4 Hour(s)

Special theatre production or tour experiences established by the program. Announcements of specific projects to be offered are made as they are developed. Instructor consent required.

THE 391 - Special Studies/Topics in Theatre

1 - 4 Hour(s)

Study of a selected topic not covered in regular course offerings. The topic will be announced prior to registration. Four credits maximum will apply toward degree.

THE 396 - Special Studies/Research in Theatre

1 - 4 Hour(s)

Advanced research allows individual students or groups of students to undertake special projects related to their program emphasis. Four credits maximum will apply toward degree.

Prerequisite(s): Approval of the divisional dean, departmental chair, and consent of instructor.

THE 398 - Independent Study in Theatre

1 - 4 Hour(s)

Independent study of selected areas under the supervision of one or more members of the faculty. Required for program honors.

FA, SP

Prerequisite(s): Approval of the divisional dean departmental chair and consent of the instructor

THE 460 - Applied Theatre - Capstone Experience

2 Hour(s)

Under faculty supervision students will complete one or more projects in the areas of theatre management, directing, playwriting, dramaturgy, stage management, theatre design, technical direction, acting, theatre education and the business of theatre.

Fa

Prerequisite(s): Senior standing as a Theatre Arts major

THE 461 - Applied Theatre - Capstone Experience

2 Hour(s)

Under faculty supervision students will complete one or more projects in the areas of theatre management, directing, playwriting, dramaturgy, stage management, theatre design, technical direction, acting, theatre education and the business of theatre.

Sp

Prerequisite(s): Senior standing as a Theatre Arts major

THE 480 - Internship in Theatre Arts

1 - 4 Hour(s)

Professional work experience under supervision of selected theatre faculty and professionals; written report required. Instructor approval required prior to registration.

Fa, Sp, Su

THE 490 - Theatre Projects

2 Hour(s)

Advanced content. Under faculty supervision, Film and Television Minor students will complete a final project which involves the areas of production management, directing, screenwriting, set and location design, cinematography/videography, editing, sound design, acting and the overall business of film and television.

SP

Prerequisite(s): GRC 330

Women's and Gender Studies

WGS 150 - Introduction to LGBTQ* Studies

4 Hour(s)

S1

This is an introductory course in Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ*) Studies. In this course, we will examine contributions of scholars from a range of academic and non-academic disciplines, develop a better understanding of LGBTQ* identities and intersectional forms of oppression, better understand LGBTQ* issues and perspectives, and demonstrate how LGBTQ* studies have influenced and continue to shape cultural and social theories broadly. This course will examine marginalized sexual and gender identities and the hetero-majority as categories for further investigation -we will also develop a better understanding of the social constructions of LGBTQ* people and LGBTQ* culture.

Odd years, beginning 2021

WGS 213 - Women in American History

4 Hour(s)

Although the slogan, "Well-behaved women seldom make history," has become popular in recent years, in this course we will consider the lives of all women -- both well- and ill-behaved. Women's history began as the study of famous individuals such as Eleanor Roosevelt, Abigail Adams, and Harriet Tubman, and their lives certainly matter, but so too do the experiences of everyday women. These include women like my great-great grandmother, who traveled across the Atlantic from Sweden to the Kansas prairie with her six children, only to die just a year after emigrating, leaving her family in the hands of her grieving husband and younger sister. This semester we will explore the role that women have played in the history of the United States, with a keen eye for the differences, as well as similarities among women. No singular "woman's experience" exists, but we will attempt to understand the ways that gender, alongside race, class, sexuality, and ethnicity, has shaped women's opportunities and experiences. This is an H2 course, so we will continue to develop the skills outlined in the Pio Core: critical thinking, analytical writing, and information fluency (research), through the methods specific to the discipline of history.

WGS 262 - Introduction to Gender Studies

4 Hour(s)

The purpose of this course is to acquaint you with the questions, critical conversations and controversies that dominate contemporary gender studies. Throughout the course, we will consider how each "wave" of feminism reinvented (and at times reinforced) prevalent cultural notions of gender, politics, and the body.

WGS 296 - Women, Gender, and Politics

4 Hour(s)

This course examines women, gender, and American politics. The last several years have brought these issues to the fore in American politics in ways that few would have predicted. To understand how women act politically, examine how gender shapes US politics, and make sense of our current political moment, this course explores two broad topics: women as activists, particularly within movements, and women in formal political roles, such as voter, candidate, and office-holder. This course will be conducted largely in seminar fashion, meaning that learning will take place through careful reading, thoughtful, informed discussion, and analytic writing assignments.

SP odd years

WGS 309 - Psychology of Gender

4 Hour(s)

Whether you realize it or not, gender likely plays a significant role in your everyday life. Relying on psychological science, this course will help you understand and critically examine the ways in which sex and gender are defined and enacted at the intrapersonal, interpersonal, intergroup, and societal levels. This 4-credit course will provide you with the tools to think critically about the representation and enacting of gender within your everyday life.

SP

Prerequisite(s): PSY 101

WGS 314 - Queer and Gender Theory

4 Hour(s)

Queer is a protean term. It can be used as an adjective to mean simply strange or odd as in Louisa May Alcott's observation in *Little Women* that "Girls are so queer you never know what they mean." It can also be used as a noun meaning, roughly, homosexual as in William F. Buckley's famous outburst to Gore Vidal, "Now listen, you queer, stop calling me a crypto-Nazi or I'll sock you in your Goddamn face." Finally, queer can be used as a verb meaning to spoil or ruin as in the British idiomatic expression "queer the pitch." Taking the delicious ambiguity of the term "queer" as our jumping off point, this course will consider "queer theory" and "queer politics" in all its valences. We will examine the history of the production of "queer" as a sexual and gender identity as well as some of the queer contemporary implications of this history. We will also consider a variety of theoretical interventions that attempt in various ways to "queer" politics and its fundamental concepts and categories including power, citizenship, the state, masculinity, femininity, and the public and the private.

WGS 315 - Women and Religion

4 Hour(s)

P2

The purpose of this course is to acquaint you with the questions, critical conversations and controversies that dominate contemporary gender studies. Throughout the course, we will consider how each "wave" of feminism reinvented (and at times reinforced) prevalent cultural notions of gender, politics, and the body.

WGS 345 - Women, Gender, and Crime

4 Hour(s)

This course develops knowledge about the role women and gender has upon crime. It focuses upon offending, victimization, labeling crimes, working in the system, and how the system processes distinct individuals. Theory is examined as well current research to seek out problems and possible solutions. This is a seminar course meaning much of the work is student-driven.

Prerequisite(s): CRJ 103 Introduction to Criminal Justice, CRJ 212 Criminology, SOC 266 Methods of Social Science Research, and ENG 199 Writing and Reading in the Sciences

WGS 400 - Interdisciplinary Capstone

2 Hour(s)

This seminar course allows students to demonstrate knowledge and share viewpoints about women and gender studies. Focus will be on student creation, discussion, and illustration of material learned during other courses while analyzing new texts and research. Its focus is interdisciplinary to align with the women and gender study courses.

SP

Prerequisite(s): Junior or senior standing

Catalog Home

Carroll University Contact Information

Carroll University
100 N. East Avenue
Waukesha, WI 53186

For general information, call 262.547.1211

To contact the Admission Office, call 262.524.7220 locally or toll-free at 1.800.CARROLL (1.800.227.7655)

FAX: 262.524.7139

Carroll University Web site

Visits to Carroll University are encouraged. The Admission Office is open from 8 a.m. to 4:30 p.m., Monday through Friday. During the school year, the office is open from 9 a.m. to noon on Saturdays. Visits should be arranged in advance by calling or writing the admission office.

The offices of Admission, Part-Time Studies and Student Financial Services are located in Voorhees Hall, at the northwest corner of East and College Avenues.

Carroll's Ethos Statement and the Four Pillars of Education

A Wisconsin Pioneer

A true Pioneer, Carroll University is Wisconsin's first, four-year institution of higher learning. Our private university is grounded in the liberal arts tradition and is a leader in the health sciences. We offer more than 95 areas of study including a variety of graduate programs and a clinical doctorate in physical therapy. From 1846 forward, we've prepared our students to live a life of purpose and meaning through learning opportunities and experiences in a diverse and global society.

The Carroll Ethos

At Carroll University, we are partners in creating a community that embraces respect, integrity, and stewardship. The quality of our life together is central to our mission of excellence in teaching, learning and service.

Respect

We will honor the dignity and worth of each member of our diverse community by building relationships of trust. We will be civil and kind as we engage one another in our work.

Integrity

We will offer our best selves and trust that others will do the same through honesty, fairness and strength of character.

Stewardship

We will cultivate and care for our human, natural and material resources with gratitude, responsibility and accountability.

The Carroll University Mission Statement

"Carroll University provides a superior education, rooted in its Presbyterian and liberal arts heritage, and draws upon its Christian tradition to prepare all students for vocational success, lifelong learning and service in a diverse and global society."

The Four Pillars of a Carroll University Education

Today, the institution draws upon its rich liberal arts tradition to prepare students to achieve their full potential in our ever-changing society. The University's educational philosophy is sustained by the four pillars of integrated knowledge, lifelong skills, gateway experiences and enduring values.

Integrated Knowledge is the very foundation of a quality liberal arts program. The Carroll curriculum emphasizes breadth and depth of learning. Our purpose is to encourage students to recognize the interrelationships among ideas. We believe that students with this understanding will continue to learn, grow and succeed long after they leave the campus.

Lifelong Skills help students prepare for life and work in a world of rapid and constant change. We believe that graduates will continue to evolve and contribute to their communities long after they earn their degrees. To that end, our mission is to help students learn to think critically and creatively, adapt to changing technologies, work efficiently and effectively, collaborate with others, and communicate clear, compelling ideas.

Enduring Values help students to consider always the impact of their actions on the world around them. We believe that effective leaders draw their inspiration from strong personal value systems. Our goal, therefore, is to offer students multiple opportunities to make decisions and then to reflect upon their consequences.

Gateway Experiences occur both upon entering and upon leaving Carroll University. We believe that our educational responsibility extends beyond the classroom into every aspect of our students' lives. That is why we place a special emphasis on preparing incoming students for university life and on helping graduates make successful transitions into their first jobs, or graduate and professional schools.

The four pillars undergird all that we do at Carroll University. They are integral to our undergraduate curriculum and guide our post-baccalaureate and graduate programs. In other words, they provide the broad inspiration for the Carroll experience and the many relationships we nurture with other organizations and institutions.

The corporate name of the University is Carroll University, Inc.

Financial Aid

About Financial Aid

The U.S. Department of Education has stated that Carroll University may participate in those student financial assistance programs authorized by Title IV of the Higher Education Act of 1965, as amended. You may contact the Director of Financial Aid at the telephone number or address listed below, if you would like to review a copy of the most current Program Participation Agreement.

Financial aid is available to students who are enrolled at least on a half-time basis per semester (some students may qualify for a Federal Pell Grant if enrolled less than half time), are degree seeking, and meet all other guidelines established by the University and the U.S. Department of Education. For financial aid purposes, half-time status is 6-8 credit hours per semester, three-quarter-time is 9-11 credit hours per semester and full-time status is a minimum of 12 credit hours per semester. If your enrollment status changes (full-time to part-time, etc.), please notify the Financial Aid Office. In addition, if a student is enrolled in courses that do not count toward his/her degree, they cannot be used to determine enrollment status. The Financial Aid Office will work with the Registrar's Office to determine eligible coursework needed for graduation. The University participates in four types of financial aid programs: scholarships, grants, loans, and employment. The following titles provide more information about the various financial aid programs and how to apply. More detailed information is available on the University's Web site and upon request by contacting the Office of Financial Aid at 262.524.7296 locally, or at 1-800-Carroll.

You may also write to us at the following address:

Carroll University Office of Financial Aid,
100 N. East Ave.,
Waukesha, WI 53186.

Note: Students may be eligible for student financial assistance program funds for attending a study abroad program that is approved for credit by the Carroll University Registrar. For more information, contact the Financial Aid Office as described above.

Application for Aid

The University uses the results of the Free Application for Federal Student Aid (FAFSA) as the basis for determining a student's eligibility for federal, state, and institutional funds. The FAFSA must be entirely completed and sent to the federal processor. Carroll University's name and Title IV code (003838) must be listed on the FAFSA in order for the University to receive a copy of the results. Students are encouraged to complete the FAFSA by February 1 for September enrollment, and by October 1 for January enrollment.

In order to receive financial aid, students must have their financial aid paperwork (including the FAFSA and any additional information required by the Financial Aid Office) completed by the following dates for the applicable term:

Summer June 15

Fall November 15

Spring April 15

The information reported on the FAFSA is used to determine a student's expected family contribution (EFC), an amount the student and parent(s) or spouse are expected to contribute toward their education. The EFC is subtracted from a student's cost of attendance to determine his/her financial need. A financial aid counselor will attempt to put together a financial aid package that comes as close as possible to meeting a student's demonstrated financial need. However, due to limited funds, the amount

awarded to a student may fall short of the amount for which she/he needs. The University attempts to distribute financial aid to students in a fair and equitable manner among the various student populations.

The Department of Education (or Carroll) may select students for a process known as verification. When selected for verification, the student and parent(s) or spouse must complete a verification document and submit additional documents which may include either using the IRS Data Retrieval when submitting the FAFSA or submit signed tax return transcripts to the Carroll University Financial Aid Office, along with additional documentation. The Financial Aid Office will contact the student to request information needed to complete this process. The University is required by the U.S. Department of Education to review the documents to ensure the information reported on the FAFSA is correct.

Scholarships

Carroll University offers a variety of merit scholarships to recognize outstanding student accomplishments. There are two categories of scholarships: academic and additional. For scholarship information, please see the University's Web site.

Grants

Grants are awarded based upon a student's demonstrated financial need as determined by the Free Application for Federal Student Aid (FAFSA). A student can receive a grant from the Federal Government, the State of Wisconsin (if a Wisconsin resident), and Carroll University. Like scholarships, grants are considered gift aid that do not need to be repaid. For additional grant information, please see the University's Web site.

Loans

Loan options available to eligible students and parents include the Federal Direct Student Loan and the Federal PLUS parent loan, as well as from private lenders. Students who obtain a loan must adhere to the terms of the loan. These terms include repayment, entrance and exit counseling, and conditions under which students may obtain deferral or partial loan repayment for volunteer service. For additional loan information, please see the University's Web site.

Student Employment

University employment opportunities allow students to work part-time on campus, earn an hourly wage and receive a monthly paycheck while attending Carroll. Students may work from approximately five to fourteen hours each week. The number of hours a student may work depends upon the student's financial aid award. Students eligible for federal work-study are given first preference for employment positions. Students eligible for federal work study are encouraged to participate in off-campus community service positions. For additional student employment information, please see the University's Web site.

Tuition, Fees, and Refund Policies

Full-Time (12-19 credits)

The charges listed begin with the Summer I 2020 session and continue through the Spring 2021 semester. Full-time status is determined at the end of the first week of classes on the date indicated in the calendar as the last day to add classes.

Tuition

Tuition per year (undergraduate)\$33,200.00

Residence Hall Room Rates

[Click here for room rate per semester cost.](#)

Meal Plans and Rates

[Click here for meal plans and rates.](#)

BookCHARGE Purchase

Charge Textbooks and Supplies to your Student Account

Students who wish to use BookCHARGE are required to sign the BookCHARGE Agreement Form and the FRA form (Financial Responsibility Agreement).

BookCHARGE allows students to charge textbooks and supplies, including rental textbooks up to \$750.00 each semester, directly to their student account on the following terms and conditions. BookCHARGE is available, 30 business days prior to the start of the semester and ends 10 business days after the semester begins, to currently enrolled students who have a PiONEer Card and have no holds on their student account. Any fees you incur for not returning a rental textbook will be charged to the credit card on file with Barnes & Noble, and not your student account. You are allowed to charge books, and supplies to your student account up to \$750 per semester. Please be responsible about your purchases. Remember, your charges will be reflected on your student account and will be billed to you.

BookCHARGE purchases will be reflected on your student account on the next billing statement. As with other charges to your student account, unpaid bookstore charges might result in late fees, registration and transcript holds.

The cost of textbooks varies. It is estimated that a student spends an average of \$1,140.00 per year for books.

Other Fees and Deposits

Housing deposit (credited to student's account)\$250.00

This sum is required to be submitted with the housing contract. When this deposit is paid, residence hall reservations are confirmed.

Housing cancellation penalty \$500.00

A \$500 cancellation fee will be assessed if a student cancels a housing license agreement, withdraws, or is dismissed from the university.

A prorated fee will be implemented for cancellations occurring during the summer of 2020 based upon the following schedule:

Deposit post date

May 2- June 30, 2020 loss of \$250.00 housing deposit and \$250 cancellation fee

July 1, 2020 and after loss of \$250.00 housing deposit and \$500 cancellation fee

Housing room change fee \$100.00

This fee will be assessed if a student changes his/her room assignment after the academic year begins.

Confirmation Deposit - Physical Therapy Direct Admit (NON-REFUNDABLE) \$200.00

Confirmation Deposit (credited to student's account) \$200.00

This sum is due and payable within 30 days after the date the applicant is notified of admission to the university or after financial aid is determined for those who are aid applicants. This deposit is collected only from new full-time students or from part-time students moving to full time status. It is generally not refundable.

Comprehensive fee \$790.00

This fee is collected from full-time undergraduate students and is used directly by the university to address needs common to the student body. The comprehensive fee is nonrefundable.

Nursing program fee \$1,050.00

This fee is assessed to all full-and part-time nursing students with a Nursing major.

Professional liability insurance \$20.00

This fee is assessed to Health Science and Education Majors who are required to carry professional liability insurance when enrolled in any clinical course.

Parking permit for resident Carroll students \$50.00-\$350.00

Parking Fines-(Lower Offense) \$30.00

Parking Fines-(Upper Offense) \$50.00

Resident students may apply for parking permits for residence hall lots. Because parking spaces are limited, they are assigned by the public safety office according to established criteria. Parking fees are nonrefundable.

Stop Payment Fee \$40.00

NSF/ACH Failure Fee \$30.00

Late Fees

Non-Payment Plan Late Fees

Late Fees in the amount of \$40.00 will be assessed monthly on any overdue balance (overdue balance: unpaid balance that is over 30 days old) of \$100.00 or greater.

Monthly Payment Plan (myPAYPLAN)

Enrollment Fee: \$50.00 due upon enrollment - per semester (Non Refundable)

A Late Fee of \$40.00 per month will be assessed if the scheduled monthly installment payment is not received by the due date.

Past due accounts occur when the payment terms on your account have not been met. The university has the right to take steps to collect the past due amounts including, but not limited to, the following: prohibiting the student from scheduling classes for the following semester; withholding course credits; academic transcripts, and diploma until the balance is paid; turning over the student's account to a collection agency; and taking legal action. By enrolling in a payment plan, the student authorizes the university to release financial information about his/her account to those concerned with collecting the balance owing. A collection agency acting on behalf of the university may contact students regarding any outstanding balance by means of an automated calling system or a pre-recorded message at any telephone number associated with the student's account including wireless telephone numbers.

Other Fees

Non-refundable registration fee for International and Off-Campus Programs	\$260.00
Study Abroad Programs: Affiliated, Unaffiliated, and Exchange Programs	\$370.00
Summer/Winter Study Abroad Fee	\$150.00
Auditing (per credit)	\$135.00
Auditing (Nursing-per credit)	\$145.00
Credit for work experience (per credit)	\$230.00
Credit for work experience (Nursing-per credit)	\$260.00
Exchange Student Fee (per semester)	\$50.00
FFEE Program Fee (Winter with the Wolf)	\$360.00
Housing Early Arrival/Late Departure Fee	\$80.00
Housing Late Application Fee	\$25.00
International Student Orientation Fee	\$135.00

Internship (per credit)	\$500.00
Internship (Nursing-per credit)	\$630.00
Internship: Written Project completed at work site (per credit)	\$230.00
Internship: Written Project completed at work site (Nursing-per credit)	\$260.00
Credit by examination (per credit)	\$230.00
Credit by examination - Nursing courses (per credit)	\$260.00
Prior Learning Assessment (per credit)	\$230.00
Prior Learning Assessment (Nursing-per credit)	\$260.00
Tuition per credit for additional credits - non-nursing (greater than 19 credits)	\$500.00
Tuition per credit for additional credits - nursing (greater than 19 credits)	\$630.00
Undergraduate tuition for OCICU online courses-per credit	\$540.00
Completion Fee - Undergraduate	\$155.00
Completion Fee - Graduate	\$160.00
Orientation Fee	\$300.00

Course Fees

Course fees (per course)\$90.00-\$190.00

These fees are required for classes with expendable material costs, as well as other costs unique to the course, and include, but are not limited to, lab courses.

Applied Music Fees

Students registering for applied lessons will be charged an applied music fee on their student bill. Students receive 12 lessons per semester.

Credits Lesson Length Lesson Fee

1 credit 25 minutes \$350.00

2 credits 50 minutes \$700.00

No refunds of applied music fees will be made after the second week of classes.

Additional Expenses - Nursing Program

Nursing is a practice discipline and students enrolled in the nursing program must plan for additional costs that are directly related to the program. These include uniforms, nursing textbooks, health requirements, CPR certification, liability insurance, and transportation costs associated with clinical experiences.

- Uniform cost will vary depending on vendor used. Also required for clinical nursing courses: watch with a second hand, white nurse's shoes (or all white athletic shoes), bandage scissors and stethoscope.
- Students are required to carry professional liability insurance when enrolled in any clinical course. Cost varies according to plan selected and agency used.
- Nursing pin. Cost varies.
- For graduating seniors desiring registration and licensure in Wisconsin:
 - Registration fee for NCLEX exam
 - Application for State Board
 - Work permit for graduates working in Wisconsin
 - State Board registration photograph
 - Class composite photograph (optional)

Payment of Student Accounts

Payments can be made online through ePAY at my.carrollu.edu.

Full and partial payments can be made any time before the due dates. Acceptable forms of online payments include: Visa, MasterCard, American Express, Discover and eCheck. A convenience fee will be added when using a debit or credit card. No fee is assessed on electronic check or eCheck payments.

Payments will also be accepted through the mail and in person at the Carroll University Business Office. Acceptable methods of payment include cash or check. Debit and/or credit card payments on student account balances cannot be accepted at the business office cashier windows.

Charges for tuition, fees, room and board are the obligation of the student upon registration and are to be paid no later than the first day of the semester. A student may attend classes, take examinations, and be entitled to the benefits of a fully registered student only when all charges have been paid or satisfactory financial arrangements have been approved by the Business Office.

Course and Fee statements will be available online at my.carrollu.edu. Sign in with your user name and password, click on Student>Billing and Payment>View Bill. Full payment of the balance must be made by the first day of the semester unless payment plan arrangements have been approved by the Business Office.

Due Dates

Summer Session I, 2020	May 6, 2020
Summer Session II, 2020	June 3, 2020
Summer Session III, 2020	July 16, 2020
Fall 2020	August 24, 2020
Winter 2021	January 4, 2021
Spring 2021	January 19, 2021

Summer Session I, 2021	May 5, 2021
Summer Session II, 2021	June 2, 2021
Summer Session III, 2021	July 15, 2021

Late Fees

Non-payment Plan Late Fees

Late Fees in the amount of \$40.00 will be assessed monthly on any overdue balance (overdue balance: unpaid balance that is over 30 days old) of \$100.00 or greater.

Monthly Payment Plan (myPAYPLAN)

Enrollment Fee: \$50.00 due upon enrollment - per semester (Non-Refundable)

A Late Fee of \$40.00 per month will be assessed if the scheduled monthly installment payment is not received by the due date.

Past due accounts occur when the payment terms on your account have not been met. The university has the right to take steps to collect the past due amounts including, but not limited to, the following: prohibiting the student from scheduling classes for the following semester; withholding course credits; academic transcripts, and diploma until the balance is paid; turning over the student's account to a collection agency; and taking legal action. By enrolling in a payment plan, the student authorizes the university to release financial information about his/her account to those concerned with collecting the balance owing. A collection agency acting on behalf of the university may contact students regarding any outstanding balance by means of an automated calling system or a pre-recorded message at any telephone number associated with the student's account including wireless telephone numbers.

How payments are applied to student accounts

Credits to student's accounts are applied in the following manner:

Financial aid, in the form of grants and scholarships, is credited to a student's account first and will be applied in the following order: Tuition, Program fees, Other fees, Board charges, Room charges.

Cash payments (other than student loans) are first applied to fines and incidental charges.

All remaining cash and loan proceeds are applied to any remaining charges in the following order:
Tuition, Program fees, Other fees, Board charges, Room charges.

Information regarding payment plan options may be obtained from the Business Office of the University. Students are invited to contact the Business Office at 262 524-7337 if they have any questions concerning payments due to the University.

Veteran's Benefits

Veterans eligible for education benefits should apply with the appropriate agency prior to registering for classes. After applying for benefits, veterans should contact the institution's Veterans Certifying Official to notify them of their intent to collect benefits.

Federal benefits paid under Chapter 30, 35, 1606, or 1607 will be paid directly to the student. Recipients of such payments are advised to anticipate a delay of about two months before receiving the first payment. Students receiving benefits under these chapters should be prepared to pay all expenses since payments are made directly to the veteran. Chapter 33 (Post 9-11 GI Bill®) and the Yellow Ribbon Benefits will be paid directly to the higher education institution.

For more information regarding Reserve Officers' Training Corps (ROTC) click [here](#).

Part-time (Less than 12 Credits) Tuition

Undergraduate course per credit (Non-Nursing)	\$500.00
Nursing course per credit	\$630.00
*Undergraduate OCICU course per credit	\$540.00
Auditing per credit (Non-Nursing)	\$135.00
Auditing Nursing per credit	\$145.00
Credit by examination-per credit (Non-Nursing)	\$230.00
Credit by examination - Nursing courses-per credit	\$260.00

These charges do not apply to full-time students who drop a course after the first week of a semester.

*Please refer to the University's Web site for information pertaining to Carroll's online consortium (OCICU) courses.

To verify the refund date for a particular OCICU course you have registered for, check the section comments of that course for refund details. Each course will follow its own refund schedule.

Students contemplating dropping and substituting courses involving online programs may substitute another section of the same course as long as it is in the same term ("term" applies to the period during which the course is offered, beginning to ending date). Traditional courses and courses offered through the Online Consortium of Independent Colleges and Universities (OCICU) have different start and end dates and drop policies even though they may be equivalent courses. Students contemplating dropping or substituting an OCICU course with a traditional course or an OCICU course must contact the registrar at 262.524.7208 or e-mail reg@carrollu.edu for policy and cost information.

Late Fees

Non-payment Plan Late Fees

Late Fees in the amount of \$40.00 will be assessed monthly, on any overdue balance (overdue balance: unpaid balance that is over 30 days old) of \$100.00 or greater.

Monthly Payment Plan (myPAYPLAN)

Enrollment Fee: \$50.00 due upon enrollment - per semester (Non Refundable)

A Late Fee of \$40.00 per month will be assessed if the scheduled monthly installment payment is not received by the due date.

Past due accounts occur when the payment terms on your account have not been met. The university has the right to take steps to collect the past due amounts including, but not limited to, the following: prohibiting the student from scheduling classes for the following semester; withholding course credits; academic transcripts, and diploma until the balance is paid; turning over the student's account to a collection agency; and taking legal action. By enrolling in a payment plan, the student authorizes the university to release financial information about his/her account to those concerned with collecting the balance owing. A collection agency acting on behalf of the university may contact students regarding any outstanding balance by means of an automated calling system or a pre-recorded message at any telephone number associated with the student's account including wireless telephone numbers.

Payment Options for Part-time Students

Due Dates:

Summer I, 2020 May 6, 2020

Summer II, 2020 June 3, 2020

Summer III, 2020 July 16, 2020

Fall 2020 August 24, 2020

Winter 2021 January 4, 2021

Spring 2021 January 19, 2021

Summer I, 2021 May 5, 2021

Summer II, 2021 June 2, 2021

Summer III, 2021 July 15, 2021

Payment Options

Summer 2020, Winter 2021 and Summer 2021

There are no payment plans available for the summer sessions or the winter session. Payment is due in full the first day of the session as noted above.

Fall 2020

1. Pay in full on or before the first day of the semester. **August 24, 2020**
2. Enroll (online) in a 4, 5 or 6 month payment plan agreement for Fall 2020. Students may enroll in a 4, 5 or 6 month payment plan agreement beginning June 22, 2020. A \$50.00 enrollment fee is due upon enrollment-per semester. (Non-Refundable). Be prepared, however, to pay past-due installment amounts as well as a \$50.00 enrollment fee at the time of enrollment. If you enroll in a monthly payment plan after the scheduled billing date (scheduled billing date is the fifth day of July, August, September, October, November and December) the system will require payment of the \$50.00 enrollment fee, a payment for the month in which you are enrolling (even though the due date is not until the twentieth of the month) as well as any past-due installments. For example: On August 6, 2020 you decide that you would like to enroll in a six-month payment plan for the fall. The six-month plan runs from July through December. Upon

enrollment, the system will require payment of the \$50.00 enrollment fee, the August scheduled installment and the past-due July scheduled installment.

- 6 month plan: July through December
- 5 month plan: August through December
- 4 month plan: September through December

myPAYPLAN will automatically adjust for recalculations of tuition, fees, and other expenses and financial aid. Payment Plan arrangements run by semester.

3. Provide a letter of company sponsorship and/or third party billing to the Carroll University Business Office on or before the first day of the semester. This letter must confirm payment in full regardless of the student's performance in the course.
4. Provide a letter to the Carroll University Business Office, on or before the first day of the semester, from your employer verifying reimbursement. Student will be required to sign a payment agreement. Payment will be due in full by January 4, 2021. A monthly Late Fee of \$40.00 will be assessed if payment is not received by the due date. Please contact Judy for information regarding this option at 262-524-7698 or at jedl@carrollu.edu.

Spring 2021

1. Pay in full on or before the first day of the semester. **January 25, 2021**
2. Enroll (online) in a 4, 5 or 6 month payment plan agreement for Spring 2021. Students may enroll in a 4, 5 or 6 month payment plan agreement beginning December 21, 2020. A \$50.00 enrollment fee is due upon enrollment-per semester. (Non-Refundable). Be prepared, however, to pay past due installment amounts as well as a \$50.00 enrollment fee at the time of enrollment. If you enroll in a monthly payment plan after the scheduled billing date (scheduled billing date is the fifth of January, February, March, April, May and June) the system will require payment of the \$50.00 enrollment fee, a payment for the month in which you are enrolling (even though the due date is not until the twentieth of the month) as well as any past-due installments. For example: On February 6, 2021 you decide to enroll in a six-month payment plan for the spring semester. The six month plan runs from January through June. Upon enrollment, the system will require payment of the \$50.00 enrollment fee, the February scheduled installment and the past due January scheduled installment.
 - 6 month plan: January through June
 - 5 month plan: February through June
 - 4 month plan: February through May

myPAYPLAN will automatically adjust for recalculations of tuition, fees, and other expenses and financial aid. Payment Plan arrangements run by semester.

3. Provide a letter of company sponsorship and/or third party billing to the Carroll University Business Office on or before the first day of the semester. This letter must confirm payment in full regardless of the student's performance in the course.
4. Provide a letter to the Carroll University Business Office, on or before the first day of the semester, from your employer verifying reimbursement. Student will be required to sign a payment agreement. Payment will be due in full by May 24, 2021. A monthly Late Fee of \$40.00 will be assessed if payment is not received by the due date. Please contact Judy for information regarding this option at 262-524-7698 or at jedl@carrollu.edu.

Refer to the Graduate Catalog for information regarding the graduate programs.

Internship Fees

The University offers three types of internships. It is the students' responsibility to register for the appropriate internship course.

1. Internship with approval and placement by the program instructor (Course 480 or 380)
 - \$500.00 per credit
 - \$630.00 per credit - Nursing

2. Credit for work experience approved by the program instructor (Course 483)	\$230.00 per credit \$260.00 per credit - Nursing
3. Written project completed at work site and approved by the program instructor	\$230.00 per credit \$260.00 per credit - Nursing

Refund Policies

Full-time status is determined at the end of the first week of classes on the date indicated in the calendar as the last date to add classes. A full-time student who drops below 12 credits after this date will continue to be billed at full-time rates unless the student withdraws from the University.

A student withdrawing from the university should complete the official withdrawal form with the Office of Student Success. This form must be returned so that the university can calculate the refund, if any, of institutional charges and determine the amount of aid that may need to be refunded to the various sources.

If a recipient of Title IV aid unofficially withdraws from all classes without following the proper withdrawal procedure, Carroll University is required to determine the student's last date of academically related activity to calculate whether a portion of the student's federal financial aid must be returned to the federal government. The Financial Aid Office will use the last date of attendance reported by the professor(s) or will contact the student's professor(s) to determine the last date a student completed any academically related activity.

A student who withdraws from the university may be eligible for a refund. The amount of the refund is determined by the student's withdrawal date and the charges on the student's account. The refund is calculated using 2 formulas;

1. Carroll University's refund policy
2. Federal/State refund policy

A student who withdraws may be responsible for tuition, room and board, fees or other charges that had previously been paid by federal student aid. Refunds may be available for students with Title IV federal aid who withdraw from the University.

Students with federal aid who withdraw from the University will have their Title IV aid recalculated in accordance with guidelines established by the U.S. Department of Education derived from the October 7, 1998, Reauthorization of the Higher Education Act. "A school must return the amount of Title IV funds for which it is responsible as soon as possible but no later than 45 days after it determines or should have determined that a student withdrew."

If a student withdraws after his/her aid was awarded, but prior to all aid having been disbursed, the unpaid aid will be included in the federal formula as aid that 'could have been disbursed'. If the refund calculation indicates that the student is still eligible for the undisbursed aid, the aid will be offered to the student via a post withdrawal disbursement, which will be sent to the student in a written statement.

The federal formula provides a return of the Title IV aid if the student received federal financial assistance in the form of a Pell Grant, Supplemental Education Opportunity Grant, TEACH Grant, Iraq Afghanistan Service Grant, Subsidized and Unsubsidized Stafford Loans or PLUS Loans and withdraws on or before completing 60% of the semester. The percentage of Title IV aid earned is equal to the number of calendar days completed in the semester divided by the number of calendar days in the semester. Scheduled breaks of five or more days are excluded.

Pro-rated Title IV federal aid is returned to the respective federal programs in the following order:

1. Federal Direct Unsubsidized Loan
2. Federal Direct Subsidized Loan
3. Federal Direct PLUS Loan
4. Federal Pell Grant Program
5. Federal SEOG Program

6. TEACH Grant Program
7. Iraq Afghanistan Service Grant
8. Any other assistance awarded to the student under programs authorized by Title IV HEA

For purposes of repayment, if funds are released to a student because of a credit balance on the student's account, then the student may be required to repay some of the federal grants released to the student. Until the repayment is resolved, the student is ineligible for further Title IV assistance. These refund policies are based upon the rules and regulations of the U.S. Department of Education and are subject to change. Worksheets used to determine the amount of refund or return of Title IV aid are available upon request at the Carroll University Financial Aid Office.

All scholarships, grants, and loans must be credited to a student account before a refund check will be issued.

No refund of tuition, fees, room or board will be made to students dismissed or suspended from the University for disciplinary or academic reasons. Refunds of study abroad program registration fees are subject to regulations available in the Office of International Education.

Fall 2020 and Spring 2021 Financial Aid Schedule

Students who withdraw and have Carroll aid and/or aid other than Title IV will earn this aid according to the following schedule:

Fall 2020 Withdraw on or before:	Percentage	Spring 2021 Withdraw on or before:	Percentage
Sunday, August 23, 2020	0%	Sunday January 24, 2021	0%
14 days from the start of the semester	20%	14 days from the start of the semester	20%
15-21 days from the start of the semester	40%	15-21 days from the start of the semester	40%
22-28 days from the start of the semester	60%	22-28 days from the start of the semester	60%
29-35 days from the start of the semester	80%	29-35 days from the start of the semester	80%
After 35 days	100%	After 35 days	100%

Specially Timed Courses

Students who withdraw from specially timed courses for the Fall 20 or Spring 21 semester and have Carroll aid and/or aid other than Title IV will earn this aid according to the following schedule:

Withdraw before the first day of class 0%

Withdraw before the second day of class 25%

Withdraw before the third day of class 75%

Withdraw the third day of class or after 100%

Federal or state financial aid for part-time students will be adjusted to reflect the final number of credits for which the student is enrolled on Monday, August 31, 2020 for the fall semester or on Monday February 1, 2021, for the spring semester. If enrollment on either one of these dates is for fewer than six credits, you may not be eligible for any financial aid.

Although the Financial Aid Census date (adjustment date for financial aid) is one week after the semester begins, we are required by federal law to review any students who received the Federal Pell Grant. Under federal regulations, students can only receive Federal Pell Grants for the classes they attended. The regulation states the following: If a student begins attending some but not all of his or her classes, the Financial Aid Office will have to recalculate the student's Pell Grant award based on the student's actual enrollment status. Therefore, if you receive a Federal Pell Grant, we will review your enrollment status throughout the semester.

Example:

A student withdrew 15 calendar days into a 105-calendar day term (number of days in a term may vary). Charges of \$5,000 were paid as follows: \$1,200 Federal Direct loan, \$1,100 Federal Pell Grant, and \$2,700 Carroll University scholarship.

In this example, under the federal return of Title IV policy, \$1,200 would be returned to the Federal Direct Loan Program and \$771 would be returned to the Federal Pell Grant Program. Under Carroll University's refund policy, based on the day of withdrawal, (60 percent = \$3,000 tuition refund), \$1,620.00 would be returned to the Carroll University scholarship fund.

Tuition, Room and Board Refunds

- Full or part-time students who withdraw from the University may be eligible for a tuition and/or room and board refund.
- Part-time students who drop courses may be eligible for a tuition refund.
- Tuition rates are charged regardless of the modality of course instruction (i.e., face-to-face, online or hybrid). Tuition will not be refunded or prorated in the event the University changes the modality of instruction as a result of the COVID-19 pandemic.

Summer 2020 Refund Schedule

Percentage	Summer I, 2020 - Withdrawal on or before	Summer II, 2020 - Withdrawal on or before	Summer III, 2020 - Withdrawal on or before
100%	Tuesday, May 5, 2020	Tuesday, June 2, 2020	Wednesday 7/15/2020
75%	Thursday, May 7, 2020*	Wednesday, June 10, 2020 *	Thursday 7/23/2020 *
25%	Monday, May 11, 2020*	Wednesday, June 17, 2020 *	Thursday 7/30/2020 *
	* by 4:30 p.m.	* by 4:30 p.m.	* by 4:30 p.m.

Summer 2020 Specially Timed Courses Refund Schedule

100% Before the first day of class

75% During the first 25% of the class

25% Anytime after the first 25% of the class through 50% of the class

Students who withdraw from specially timed courses for the Summer 20 or the Summer 21 session and have Carroll aid and/or aid other than Title IV are asked to contact the Financial Aid Office at 262 524-7296 for information regarding the amount of Carroll aid and/or aid other than Title IV aid earned.

Fall 2020 and Spring 2021 Refund Schedule

Fall 2020 Withdraw on or before:	Percentage	Spring 2021 Withdraw on or before:	Percentage
Sunday, August 23, 2020	100%	Sunday, January 24, 2021	100%
14 days from the start of the semester	80%	14 days from the start of the semester	80%
15-21 days from the start of the semester	60%	15-21 days from the start of the semester	60%
22-28 days from the start of the semester	40%	22-28 days from the start of the semester	40%
29-35 days from the start of the semester	20%	29-35 days from the start of the semester	20%
After 35 days	0%	After 35 days	0%

Room and Board Refunds

Refunds of room and board fees are available if a resident student officially withdraws from the University. The amount is determined by the refund calculations listed above or, in the case of board fees, actual use, whichever is greater. The university will follow its published refund schedule, even in the event a student withdraws for medical reason or in response to other concerns related to the COVID-19 pandemic. In the event the university closes its residence halls, a prorated refund schedule will be announced.

Fall 2020 and Spring 2021 Specially Timed Courses Refund Schedule

100% Before the first day of class

75% Before the second day of class

25% Before the third day of class

0% The third day of class or after

Example:

A student withdrew 15 calendar days into a 105-calendar day term (number of days in a term may vary). Charges of \$5,000 were paid as follows: \$1,200 Federal Direct Loan, \$1,100 Federal Pell Grant, and \$2,700 Carroll University scholarship.

In this example, under the federal return of Title IV policy, \$1,200 would be returned to the Federal Direct Loan Program and \$771.00 would be returned to the Federal Pell Grant Program. Under Carroll University's refund policy, based on the day of withdrawal, (60 percent = \$3,000 tuition refund), \$1,620 would be returned to the Carroll University scholarship fund.

Tuition Refunds for Winter 2021

Percent of Refund:

100%

Withdrawal Date on or before:

Before the first day of class

75%	Before the second day of class
25%	Before the third day of class
0%	Third day of class or after

****All refunds will be reduced by an administrative fee (not to exceed \$100).**

Tuition Refunds for Summer 2021

Percentage	Summer I, 2021 - Withdrawal on or before	Summer II, 2021 - Withdrawal on or before	Summer III, 2021 - Withdrawal on or before
100%	Before the first day of class	Before the first day of class	Before the first day of class
75%	Before the second day of class	Before the second day of class	Before the second day of class
25%	Before the third day of class	Before the third day of class	Before the third day of class
0%	Third day of class or after	Third day of class or after	Third day of class or after

Summer 2021 Specially Timed Courses Refund Schedule

100% Before the first day of class

75% Before the second day of class

25% Before the third day of class

0% Third day of class or after

OCICU Refund Schedule

Courses in the Carroll Online Consortium (OCICU) have a separate refund schedule. To verify the refund date for a particular OCICU course you have registered for, check the section comments of that course for refund details. Each course will follow its own refund schedule.

Refund Policy for Veteran Students

Refund policy for military reservists called to active duty: The University recognizes the sacrifices that those in the armed services make while serving our country. We are proud to have these individuals as a part of our campus community and therefore maintain the following policy:

- The student must provide the Registrar's Office copies of official military orders. The student will then be automatically withdrawn from all of his/her courses for the given semester. The academic record will reflect the non-punitive "W."
- The student will be eligible for a full refund for tuition and course fees for any courses that are not completed during that semester/session.

- Any room and board charges will be prorated based on the date in the semester the student is required to leave and the remaining amount will be refunded.

All students adding or dropping a course must do so in writing through the Registrar's Office. Refunds are based on the date of the postmark of withdrawals sent by mail or on date of delivery of those brought in personally to the Registrar's office. If a student drops from a credit class to an audit, the refund will be based on the credit course fee according to the refund policy. If a class is cancelled due to lack of enrollment, students registered for that class will be given a full refund.

Student Affairs

Counseling Services

Personal confidential counseling is available to all students at the Walter Young Center on the Carroll campus. Experienced, master's level therapists assist students with concerns regarding family, relationships, self-esteem, academic difficulties and other issues. The counseling center offers solution focused short term counseling. Students needing long-term treatment may be referred to a community resource. For more information click [here](#).

Disability Policy for Students

Carroll University is committed to making otherwise qualified students with disabilities full participants in its programs, courses, services and activities. We are guided by the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and the ADA Amendments Act of 2008. Individuals will receive reasonable accommodations according to their needs and the documentation of their disability.

Accommodation Request Process

Accommodation requests should be made through the Walter Young Center. In order to be eligible for reasonable accommodation(s) from the University, the student must provide recent, relevant and comprehensive documentation of the disability, and the disability's impact on the student's participation in a course, program or activity. Should documentation from the student be inadequate or incomplete, the University reserves the right to require additional documentation. The cost of providing additional documentation will be borne by the student. However, if documentation is complete, but the University seeks a second professional opinion, the University will pay for the cost of that second opinion. The University also reserves the right to deny accommodation until necessary documentation is received. Accommodation requests will be approved or denied by the Office of Student Accessibility at the Walter Young Center following a Reasonable Accommodation Conference. Any accommodation decision may be appealed in writing to the Vice President of Student Affairs within five (5) days of the decision. Any request for additional or modified accommodations must be made in writing to the Student Accessibility Services Office. Contact Martha Bledsoe with questions.

Diversity

At Carroll University, diversity is a critical part of the campus culture. International and multicultural students, faculty, and staff are a vital component of the campus' richness. The university's goal is to create an environment that is open and welcoming for all people.

Carroll University is committed to supporting a diverse student body by providing comprehensive student support services and programs that allow students to explore diversity on campus, in the surrounding communities, and across the globe.

The Office of Cultural Diversity offers services and programs that support diversity such as cultural programming and activities, ally and mentor programs, diversity training, classroom presentations and more. These programs and services directly benefit the Carroll student body, faculty, and staff, as well as the Waukesha community. In turn, they provide the whole community with opportunities to gain a greater appreciation for the diversity represented on and off campus.

Student Health Center

The Carroll University Student Health Center is staffed by board certified nurse practitioners who treat students for a variety of minor illnesses and injuries. The nurse practitioners can prescribe medications if needed, and stock some medications in the Student Health Center. The nurse practitioners can also perform well physicals, pap smears, tuberculosis (TB) and skin tests, administer vaccines, perform drug screens, order blood tests and complete travel forms. There are charges to see the nurse practitioners, receive medications, have lab tests, vaccines, etc. All charges are billed to the student account or can be paid using Carroll Cash, unless the student has enrolled in the student insurance plan offered through the University. Students enrolled under a parent's insurance plan can request a receipt that can be submitted to their insurance to request reimbursement. Students needing further treatment are referred to local clinics, Waukesha Memorial Hospital, or their primary M.D. and are responsible for any associated costs.

Intercollegiate Athletics

In the fall of 2016, Carroll University rejoined the College Conference of Illinois and Wisconsin. The Pioneers were previously members of the CCIW from 1955 through the spring of 1992. Current CCIW members include Augustana College, Carthage College, Elmhurst College, Illinois Wesleyan University, Millikin University, North Central College, North Park University and Wheaton College.

Carroll offers 22 intercollegiate athletic programs, including baseball, basketball (men and women), cross country (men and women), football, golf (men and women), indoor track and field (men and women), lacrosse (men and women), outdoor track and field (men and women), soccer (men and women), softball, swimming and diving (men and women), tennis (men and women) and volleyball.

In order to participate in intercollegiate athletics, student-athletes are required to maintain good academic and social standings, as defined in the student handbook. Academic minimums are set forth by the CCIW and the National Collegiate Athletic Association.

Residence Life and Housing

Our mission is to provide safe, inclusive, and supportive living and learning environments that positively impact student engagement, retention and success.

Living on campus can be one of the most important and memorable parts of the total college experience. It provides opportunities to make new friends, become a part of a community and benefit from the residence hall's educational, cultural, social and recreational activities.

Residency Policy

[Click here for the Residency Policy.](#)

Dining Services

[Click here to learn about the campus dining program and policies.](#)

Spiritual Life Program

The Office of Spiritual Life cultivates student's spiritual, interpersonal and vocational development by helping them connect to sources of meaning in their lives. Carroll University supports students from a breadth of faith traditions through weekly programming and periodic special events. The University Chaplain is also available for pastoral counseling and spiritual direction. Student organizations, such as Intervarsity Christian Fellowship and Habitat for Humanity, provide additional opportunities for spiritual engagement and volunteer work, and Carroll connects students to local worshiping communities and faith-based organizations, such as Hillel Milwaukee. Students may reserve either of our two campus chapels for group gatherings or use them for private spiritual practice. An additional prayer room in the campus center is free from religious symbols and accessible to students from any faith tradition for private prayer.

Carroll University has historic ties to the Presbyterian Church (U.S.A.) and continues to nurture that heritage through the Office of Spiritual Life.

Student Activities

The Office of Student Activities enhances life on campus by providing students with social opportunities and numerous ways to get involved both on campus and in the community. There are many opportunities to get involved, including Student Senate, Fraternity and Sorority Life, Recreational Sports, or working for the Orientation, Student Activities or RecSports staffs. Student Activities provides programs and services ranging from orientation to community service projects, outdoor gear rentals to the weekend programming series (CU @ Night), and much more.

Recreational Sports

Carroll University is an Institutional Member of the National Intramural-Recreational Sports Association (NIRSA-Leaders in Collegiate Recreation). The Department of Recreational Sports is comprised of: Competitive Sports- including Intramural and Club Sports, Group Fitness, outdoor recreation equipment, RecSports Special Events, as well as the Cheer and Dance Teams and Esports program. The RecSports Fitness Center in Prairie Hall hosts functional training cardio equipment, cable-based weight equipment, plate-loaded and free weight areas. The Pioneer Fitness Center in Pioneer Hall features selectorized weight machines, extensive cardio equipment, abdominal and stretching areas as well as TRX, dumbbells and a modular multi-station. Ganfield Gymnasium has a multi-purpose court, a Dance Studio, a bouldering wall, and is home to intramurals and group fitness. Intramural Sports leagues typically include: mixed and men's basketball, flag football, indoor soccer, dodgeball, esports and mixed and women's volleyball. Several tournaments in a variety of sports are also offered each semester. The Department of Recreational Sports manages the Bike Shop and Carroll Outdoor Recreation Equipment (CORE) where students, faculty, and staff can rent camping equipment, bikes, snowshoes, cross country skis, and more for nominal fees.

Student Organizations & Fraternity & Sorority Life

Only part of the Carroll University experience happens in the classroom. Getting involved in one of our 60 student organizations helps you develop leadership skills, explore new opportunities, connect with like-minded students, and make a difference on campus and in the community. From cultural and diversity to media and arts there is a student org that is waiting for you to join. Check out our student organizations and fraternity and sorority life here.

Programming

Looking for something to do? Student Activities is the one stop-shop for fun, engaging, and inclusive programs. Think of Carroll's Got Talent, a Kalahari day trip, and of course BINGO! Get connected and join the Carroll community by attending Daytime Programs, CU@Night Weekend Programming, Big Programs, and Travel Series events here.

Pioneers Volunteer

Pioneers Volunteer is dedicated to connecting Carroll to the larger community through service and volunteering by working with existing service-learning programs at Carroll and creating new partnerships for Carroll within the surrounding communities. Students can participate in one-time volunteer events or ongoing weekly volunteer placements at sites throughout the area.

Student Handbook

The specific rules and regulations of Carroll University, published in the current Carroll Student Handbook and available to all students on the University's Web site, inform students of their responsibilities as well as their rights. The additional expectations associated with enrollment in specific academic programs are published separately.

To view the Student Handbook, [click here](#).

Military and Veteran Student Services Program

Nancy Ferguson VA Certifying Official

Kristin Schneider VA Certifying Official

The purpose of the Carroll University Military and Veteran Student Services Program, operated through the Office of Student Affairs, is to provide a holistic approach to support services for current and former service members as they pursue their academic, career, and personal goals at Carroll University.

Education Benefits

Veterans eligible for education benefits should apply with the appropriate agency prior to registering for classes. After applying for benefits, veterans should contact the institution's Veterans Certifying Official to notify them of their intent to collect benefits. Federal benefits paid under chapters 30, 35, 1606, or 1607 will be paid directly to the student. Recipients of such payments are advised to anticipate a delay of about two months before receiving the first payment. Students receiving benefits under these chapters should be prepared to pay all expenses since payments are made directly to the veteran. Chapter 33 (Post 9-11 GI Bill®) and the Yellow Ribbon Benefits will be paid directly to the higher education institution.

GI Bill® is a registered trademark of the U. S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <http://www.benefits.va.gov/qibill>

Refund Policy for Veteran Students

[Click here for policy](#).

Cross Cultural Experience

A significant experience in another culture may count as the immersion portion of Carroll's Cross-Cultural Experience (CCE). For veterans, military service abroad may qualify as the immersive portion of the CCE requirement. Veterans who have not served abroad will still need to meet their CCE requirement.

Student Resources

Allison Reeves Grabowski Senior Director Academic Resources

Torrie Boduch Director Career Services

Joelle Curry Senior Supplemental Instruction Coordinator

Courtney Foster Academic Strategy Coordinator

Lydia Guell Assistant Director Career Services

Kirsten Petersen Pio Connection Fellowship Grant Coordinator & Graduate Career Consultant

Courtney Hinder Learning Commons Coordinator

Academic Resources, located on the lower level of the Carroll library, provides free academic support services for Carroll students through Career Services and the Learning Commons.

Career Services

Career Services offers personalized resume and cover letter assistance, help exploring majors, career assessments, career exploration, career focused workshops, interviewing strategies, graduate school preparation, and help searching for a job/internship for all Carroll students and alumni.

Online services include:

Students and alumni have access to Handshake, a career platform with a robust job and internship database.

Social Media: LinkedIn, Facebook, Twitter, and instagram

Career Events:

WorkForce Fair: Jobs, Internships, & Graduate Schools Etiquette Dinner

Learning Commons

The Learning Commons (LC) is located on the lower level of the Carroll library. The LC Info Desk is open approximately 95 hours a week during fall and spring semesters. Students are encouraged to move tables and chairs to create a study space. Dry erase boards and walls are available in the large open study space. Markers and laptops are available for checkout at the LC Info Desk for use in the library building. Students can reserve group study rooms for up to 4 hours.

All services are free and voluntary. Please contact lcommons@carrollu.edu with any questions regarding academic and career support.

Academic Strategy Workshops

The Learning Commons offers numerous academic strategy workshops focusing on time management, study skills, test-taking strategies, and other requested topics. Carroll students are encouraged to fill out a request form (found on the LC website) for a customized workshop. Workshops are available for individuals or for student groups.

Career Services

Career advisors and career peer advisors are available in the Learning Commons. Email Lydia Guell at lguell@carrollu.edu for more information.

Drop-in Tutoring

Peer tutors are available for many courses. Carroll students can connect with a peer tutor in the Learning Commons during weekly drop-in hours.

English Conversation Partner Program

This program pairs students seeking to enhance their English speaking and listening abilities with peer tutors who are native English speakers. Partners meet in the Learning Commons for about one hour each week to converse in English about topics of interest to the students. Carroll students interested in this program are encouraged to fill out a request form (found on the LC website).

Math Assistance

Peer math assistants hold weekly hours in the Learning Commons and help Carroll students as they prepare for quizzes and tests, complete assignments, and learn new concepts in their classes. Math Assistance is available for MAT 098, MAT 101, MAT 106 , MAT 130 , and MAT 140.

Reading Writing Skills Lab

Professor Dolores Greenawalt is available to help students improve content reading strategies and writing skills during fall and spring semesters. All students are welcome, especially students taking ENG 140, ENG 170, CCS100 and CCS199. Email Professor Greenawalt at dgreenaw@carrollu.edu for more information.

Supplemental Instruction (SI)

Supplemental Instruction (SI) is a peer education program that targets historically difficult courses. By employing a variety of collaborative learning strategies and group work, SI offers multiple options for learning challenging material. SI sessions are held in the Learning Commons or in designated classrooms around campus.

Writing Assistance

Peer writing assistants hold regular hours in the Learning Commons and support Carroll students during any stage of the writing process. Students are welcome to visit with a writing assistant to focus on brainstorming, developing and organizing ideas, and revising final drafts.

Notice of Non-Discrimination Policy

Carroll University does not discriminate in any manner contrary to law or justice on the basis of race, color, sex, age, religion, sexual orientation, national origin, disability or veteran's status in administration of its educational, admission, financial aid, athletic or other university policies and programs nor in the employment of its faculty and staff.

Todd Wehr Memorial Library

Judith Carter Electronic Resources and Systems Librarian

Meghan Dowell Teaching & Learning Librarian

Joe Hardenbrook Director of Library Services

Susan Riehl Archivist, Public & Technical Services Librarian

Barbara Ruggeri Life & Health Sciences Librarian

Mission

The mission of the Library is to serve students by providing access to information, by maintaining an environment that promotes a culture of academic excellence, and by offering instruction that fosters scholarship, integrity, independent intellectual growth, and the sophisticated information skills necessary for lifelong learning.

Carroll's Library

The Todd Wehr Memorial Library offers a bundle of integrated services aimed at student academic success. These services range from our collection of books and e-books tailored to the Carroll curriculum and online databases that allow Carroll's students to access thousands of journals from anywhere with an Internet connection, to the Information Commons where students can collaborate and get personalized research assistance from librarians for every course at Carroll. The electronic collection of over 100 databases, 70,000+ electronic journals, and 163,000 electronic books are available 24/7 to Carroll students. The library is open over 100 hours per week during the semester. Our online chat box provides expert online research assistance from our library staff during those hours so students can receive support online or in person.

The Library's instruction program teaches subject-specific research methods, including how to evaluate web sites and other information resources. Library instruction begins in the Cultural Seminar (CCS) program and continues as students work on assignments that require them to deal with a world of rapidly proliferating information and delivery systems. Librarians also assist students with course assignments and provide research assistance in the Information Commons or by appointments with their liaison. The Library's liaison program pairs librarians with faculty in specific subject areas for the purposes of acquiring the best resources for Carroll students, keeping the collections current, and teaching research skills specific to that subject. Liaison librarians also provide students with specialized assistance for in-depth research projects.

The Library provides a comfortable environment with collaborative technology and study spaces to accommodate a variety of study styles: quiet spaces, individual carrels, large tables, group rooms, hard chairs, soft chairs and a coffee shop.

Curriculum Materials Center (CMC)

The CMC is located on the library's main level - just beyond the Information Commons. The purpose of the CMC is to support the curriculum material needs of students preparing for careers in K-12 education. For questions on CMC materials or policies, please ask at the Information Commons desk or view our CMC guide.

University Archives

The University Archives contains official records and publications of the institution, private papers, student and faculty publications, academic and curricula works, photographs, books, audio and video recordings and Carroll memorabilia that record and illustrate the history and life of the university. These materials provide historical information about the Trustees, the faculty, staff and student body over time. Items that are highly accessed, such as the student yearbooks and the Theatre Collection, campus artwork, and graduate theses have been digitized and are available online through the digital collections link on the Web site. New items are continually added to the digital collections site.

Special Collections

The Library's holdings include some unique, rare, out of print, and historic books which are all grouped as part of Special Collections. The materials in Special Collections include; Welsh Collection, Barclay Collection, Mother Goose Collection, Rufus and Charles King Collection, and Rare Books Collection. The subjects cover religious works, historical works on Scotland and Wales, classic literature, theatre, children's literature, and artistic works that date back as far as 1604. All materials are accessible to the Carroll Community and may be used in the Library. For assistance please contact archivist, Susan Riehl.

Please click [here](#) to see the Library's home page on the university's web site for more information regarding the Library's services and policies.

Public Safety

Our mission is to assist the Carroll community in creating a safe and secure environment for learning, living, and working. The Department of Public Safety maintains staffing 24 hours a day including personnel in the dispatch office, Public Safety Officers, and off duty Waukesha County Sheriff Deputies. Public Safety both produces and co-sponsors various events during the year to help enhance the knowledge of the community related to personal safety both on campus and off.

Carroll University provides an annual security report that includes statistics for the previous three calendar years concerning reported crimes that occurred on campus; in certain off campus buildings or property owned or controlled by Carroll University; and on public property within or immediately adjacent to, and accessible from, the campus. The report includes institutional policies concerning campus security, such as policies concerning alcohol and other drug use, crime prevention, the reporting of crimes, sexual assault, and other matters. The report also includes fire safety policies and statistics, emergency notification procedures, and protocols for missing persons.

Click [here](#) for a copy of the annual security report.

You can obtain a paper copy of this report by contacting the Public Safety Center located at 208 Wright Street, which is a half block east of Campus Center or by calling 262.524.7300.

Insurance

Carroll University is committed to promoting health and security to help protect students' academic success. With this in mind, the University sponsors a number of insurance programs, including student health insurance, renters insurance, and property and auto insurance for University owned or leased vehicles and property. Current information about University sponsored insurance can be found in the Student Handbook.

Certain students are required to carry professional liability insurance when enrolled in clinical courses. These students include, but are not limited to, students enrolled in physical therapy, nursing and other health science programs.

Carroll University is committed to promoting health and security to help protect students' academic success. With this in mind, the University sponsors a number of insurance programs, including student health insurance, renters insurance, and property and auto insurance for University owned or leased vehicles and property. Current information about University sponsored insurance can be found in the Student Handbook.

Certain students are required to carry professional liability insurance when enrolled in clinical courses. These students include, but are not limited to, students enrolled in physical therapy, nursing and other health science programs.

Many HMOs do not provide coverage outside of a particular area, so students and their parents should review their coverage carefully before waiving the University's plan.

Student-Athletes: The University carries an insurance policy that provides secondary coverage for the student athlete who may be injured during practice for, or while participating in, an intercollegiate athletic event. The student athlete is responsible for any deductible.

Vehicles: The University carries insurance on all of its vehicles. Any student receiving permission to drive a university vehicle must be approved by the University's insurance company before he or she drives any of its vehicles.

Property: Carroll University's property insurance policy covers damage to, or theft of, University owned property only. The University's policy does not cover personal property belonging to students.

Liability: Certain students are required to carry professional liability insurance when enrolled in clinical courses. These students include, but are not limited to, students enrolled in physical therapy, nursing and other health science programs.

Admissions

Admission to Carroll University is offered to those for whom academic and personal success seems likely. Each candidate is evaluated individually. Evidence of good character and demonstrated ability to do university level work is essential.

Options for Attending Carroll

Students who wish to attend Carroll University may choose from two basic options.

Full time - students who carry 12 credits or more per semester.

Part time - students who carry 11 credits or fewer per semester. There are two types of part-time students.

Degree seeking - students working toward a Bachelor of Arts, Bachelor of Science, Bachelor of Science in Music Education or Bachelor of Science in Nursing.

Non-degree seeking - students taking courses for enrichment, skill-building, or preparation for graduate study purposes. Courses may be taken for credit or audited (students do not receive university credit for their work).

Note: Students may move between full-time and part-time status. However, they should be aware of implications for tuition and fees, financial aid, housing, etc. **Part-time students who wish to attend the University as full-time students must apply through the Office of Admission. Questions should be directed to the appropriate offices.**

Students come to Carroll from different environments. Some matriculate directly from secondary schools or transfer from other institutions. Other students enroll at Carroll as working adults.

Carroll offers classes during the day, in the evening, and online. Students at Carroll may choose from more than 95 areas of study or they may design their own major.

Procedures for Admission - Full-Time Freshmen

The following credentials must be submitted to the Office of Admission:

1. **Application for admission**, which may be submitted at any time following the successful completion of the junior year in secondary school.
2. **Transcript from an accredited secondary school** that shows progress toward, or the completion of, graduation requirements.
3. **SAT or ACT scores:** these tests are administered by the College Entrance Examination Board and the American College Testing Program, respectively
4. **Nursing students** must submit a transcript from an accredited secondary school that shows satisfactory completion of coursework in algebra II, chemistry and biology.

Decisions are made on applications when they are complete, and applicants are notified promptly through the Office of Admission. In some instances, the files of prospective students are referred to the Admission Committee for review and action. That body may grant admission to the University provided certain conditions are met or may require the student to satisfy specified criteria. Final admission to the Carroll athletic training, nursing, and physical therapy programs is contingent upon the ability of the applicant to comply with the technical standards as listed in the catalog under each area of study, as well as the health standards listed on the Carroll University health forms.

University applicants with disabilities bear no obligation to disclose their disabilities during the application process. However, an applicant may choose to disclose his/her disability to the Office of Admission if the student believes that he/she does not meet the University's regular admission requirements. The disability may be taken into consideration in relationship to the student's overall achievement, the effect of the disability on his/her academic achievement, and the likelihood of the student's success in the University's programs, courses and activities.

Following acceptance, students intending to enroll must pay a \$200 **confirmation deposit and** complete the health information form.

Those who apply for financial aid are not required to declare their intention to enroll until after they have been notified of their final financial aid award.

Application Deadline

Students are encouraged to file applications for admission to the first semester (fall) before March 15. Applications will be considered and qualified candidates will be accepted as long as there are openings in the entering class. Applications and all supporting documents for admission to the second semester should be filed before November 1.

To assure early notification of admission, either the ACT or SAT should be taken before March 15. Ordinarily, the SAT is administered seven times a year in October, November, December, January, April, May and June. The ACT is administered five times a year in October, December, February, April and June.

Test scores obtained in the junior year may be submitted. Students should contact their guidance counselor or write the testing agency to obtain test registration forms.

Admission Options

Carroll recognizes the varying needs of individual students with the following options:

Early admission may be granted following the completion of three years of secondary school, provided the secondary school indicates that it is in the applicant's best interest to do so. The applicant may or may not have completed the coursework required for secondary school graduation at the time of admission, but must show unusual promise and achievement.

Deferred admission may be offered to students who want to delay university study for a semester or full year after graduating from secondary school.

Advanced Placement

Applicants will be considered for advanced placement according to the policies established by Carroll University. The applicant's advanced standing is determined individually and is based on an evaluation of all prior academic work.

Options for advanced placement are:

1. Advanced placement exams administered in high school.
2. Retroactive credit for modern languages and math.
3. CLEP exams (College Level Examination Program).
4. Program exams.
5. Credit for prior learning application.

Procedures for Admission - Full-Time Transfer

The following credentials must be submitted to the Office of Admission:

1. **Application for admission**, which may be submitted at any time.
2. **Transcript from an accredited secondary school.**

3. **Transcript(s) from all post-secondary institutions** attended.

Students must normally be eligible to return in good standing (be free of academic or disciplinary probation) to all institutions previously attended.

Application criteria and academic progression standards for specific academic programs are listed separately in the catalog.

Students from a two-year or four-year accredited post-secondary institution may receive transfer credits provided:

1. Transfer courses parallel Carroll University courses or are deemed eligible for elective credit.
2. All courses accepted in transfer and applied to graduation hours are graded C or better.
3. A maximum of 64 credits may transfer from a two-year institution.
4. There is no limit as to the number of credits eligible for transfer from a four-year institution.
5. Students must complete their final 32 credits at Carroll, including at least one-fourth of their major credits and at least one-fourth of the minor credits.

Transfer credit will be evaluated under the following provisions:

1. A course in which a student received a grade of D may be used to complete general education curriculum and major or minor requirements, but the credit hours will not count as hours toward graduation. All D and F graded courses normally acceptable for transfer credit will be figured into the calculation of the cumulative grade point average.
2. A course in which a student received a D or F grade may be repeated for credit and only the last grade earned will be used in the grade point average calculation.
3. Transfer students with an associate of arts or an associate of arts & science degree with at least 52 hours of acceptable transfer credit will have the writing seminar waived and will meet all GE 1 distribution components in the general education curriculum. In addition, transfer credit may be received for the CCD, GE2 and CCE requirements.
4. Transfer students with a previous bachelor's degree from an accredited post-secondary institution will have the writing seminar waived and will meet all GE 1 distribution components in the general education curriculum. In addition, transfer credit may be received for the CCD, GE2 and CCE requirements.
5. Students may be eligible for retroactive credit when transferring in an upper level modern language or math course(s). Retroactive credit will be granted at Carroll University only if the transferring institution previously awarded retroactive credit(s). If the transferring institution did not award retroactive credit(s), Carroll University will only grant credit for the upper level course(s).
Please refer to the Alternative Methods of Obtaining Credit for specific guidelines
6. All transfer coursework is evaluated on a course by course basis. General education curriculum requirements must be completed by either transfer or Carroll University credit.
7. If a student repeated a course in which s/he initially received a grade of C or better and the repeated course had an unsatisfactory grade (D or F), s/he will receive the last grade earned. The final grade will be used in the grade point average calculation.
8. Transfer credit course timeline stipulations may exist for specific academic programs. Please refer to the academic program sections of the catalog for details.

Transfer credit policy after enrollment at Carroll University: Individual departments will evaluate transferred coursework to ensure equivalent content is being learned by the student in the transferred course. Therefore, it is necessary to obtain permission in advance from the Carroll University Registrar's Office in order to have coursework from another institution accepted in transfer. All coursework must be graded at C or better to be accepted. Grade point deficiencies at Carroll University cannot be made up with transfer course credit. Note: Full-time and part-time students are required to complete their final 32 hours at Carroll.

The Carroll Nursing Program requires that any relevant transfer coursework in biology, chemistry, health sciences and nursing in which a grade less than a BC was earned must be repeated prior to application.

USAFI credits and/or any other accredited correspondence experiences are evaluated against course offerings at Carroll, and credit is assigned accordingly. Ordinarily, not more than two such courses may receive credit toward a degree at the University

Procedure for Admission - Part-Time Students

Degree-seeking students must submit the following credentials to the Office of Admission:

1. **Application for Admission**
2. **Transcript from an accredited secondary school**
3. **Transcripts from all post-secondary institutions attended**

Non-degree seeking students must submit the following credentials to the Office of Admission:

1. **Application for Admission**
2. **Transcripts from all post-secondary institutions attended** may be required to verify prerequisite coursework.

Students must normally be eligible to return in good standing (be free of academic or disciplinary probation) to all institutions previously attended.

Evaluation for acceptance generally takes one to three weeks and is done on a rolling basis.

Application criteria and academic progression standards for specific academic programs are listed separately in the catalog. Transfer credit provisions may be found under the full-time transfer admission information.

Part-time students who wish to apply to the University as full-time students must do so through the Office of Admission. If possible, this process should be completed one full semester prior to anticipated full-time enrollment.

Returning Students

After the lapse of one or more semesters, students seeking to return to Carroll on a full-time or part-time basis must reapply. Students who have been suspended from the University and have become eligible to apply for readmission must do so through the Office of Admission. The Admission Committee reviews each application and determines the current status of the student and the conditions of readmission. When a student is reaccepted into Carroll University, they will be required to follow the most recent catalog to determine graduation requirements.

Articulation Agreements

Carroll University maintains articulation agreements with a number of Wisconsin institutions of higher learning in various areas of study. More information is available from the Office of Admission.

Athletic Training Program Admission

The athletic training program admits qualified students regardless of race, color, creed, sex, age, sexual orientation, marital status, national or ethnic origin or handicap that does not interfere with the performance of professional athletic training practice as provided by law.

Applications and credentials for admission to the athletic training program must be submitted for processing to the Carroll University Office of Admission. Applicants must be in good standing (be free of academic and or disciplinary probation) at all institutions previously attended. Decisions on applications are made by a selection committee comprised of the athletic training faculty/staff members. Applicants are notified of their status through the Office of Admission.

Students who meet the admission and prerequisite professional phase criteria are granted admission to the professional phase of the athletic training program. Students must also fulfill technical standards and caregiver background and criminal history check to be admitted to the professional phase of the athletic training program.

Students who fail to meet the professional phase admission criteria, who fail to meet technical standards requirements, or who do not pass the caregiver and background criminal history check can be denied admittance to the professional phase of the athletic training program.

Carroll University is not accepting direct admission applications at this time as we pursue a change in degree to a Master of Science in Athletic Training.

Delayed Admission - Students who enroll at Carroll can be accepted by meeting the athletic training program progression standards including:

1. A cumulative and semester GPA of 2.75 or higher
2. Pre-professional Science courses (ANP 130 and ANP 140, CHE 101 and CHE 102, PHY 101 and PHY 102, PSY 101) GPA of 2.5 or higher
3. A minimum course grade of "C" is required in all coursework used to calculate pre-professional GPA.
4. Completion of the following courses or equivalent prior to the beginning of the professional phase of the program:
 1. Cultural Seminar
 2. Writing Seminar
 3. ATH 101 Athletic Training Seminar I
 4. Pre-professional Science courses (ANP 130 and ANP 140, CHE 101 and CHE 102, PHY 101 and PHY 102, PSY 101)
 5. Health Sciences 101 or the equivalent of First Aid and CPR for the Professional Rescuer certification with AED certification
5. Submission of application to include: transcripts, cover letter, résumé, and three letters of reference.
6. Completion and submission of technical standards form.
7. Participation in university, community service, or athletic training activities.
8. May only repeat a course once and not be on academic probation.
9. Admission and progression standards are subject to change based on regulatory, licensing, and/or certification needs.

Diagnostic Medical Sonography Admission

Entry into the Advocate Aurora Health or the University of Wisconsin Hospital and Clinics professional phase is highly competitive and dependent upon the completion of multiple requirements. The acceptance of students into the professional phase of the program is determined solely by the admissions committee at each hospital's independent School of Diagnostic Medical Sonography. **Meeting the minimum requirements does not guarantee acceptance into the hospital phase and there are typically more applicants than seats available in the program. It is strongly recommended that students enrolled in this program have a parallel plan in the event clinical phase admission is not attained.**

The program admits qualified students regardless of race, color, creed, gender, age, sexual orientation, marital status, national or ethnic origin or handicap that does not interfere with the performance of professional sonography/radiologic technology practice as provided by law.

There is only one application cycle for the professional program each year. Students typically apply in the fall semester of sophomore year or once all of the pre-requisite courses and other requirements are completed by the application deadline of November 15. Students will work closely with the Health and Medical Sciences Advisor to submit a complete application file which is reviewed by the School of Diagnostic Medical Sonography Admissions Committee at each hospital. Qualified students will be contacted for a personal interview in the spring semester after the fall application period. Students accepted into the program begin the two-year professional phase with the hospital partner that fall (a year after first submitting their application). Upon successful completion of the professional program, students earn a certificate in Diagnostic Medical Sonography and a Carroll University Bachelor of Science degree in Health Sciences with an emphasis in Diagnostic Medical Sonography. Due to the highly specialized nature and requirements of this program, the students will work closely with the Carroll University Health and Medical Sciences Advisor.

Program acceptance offers are contingent upon the successful completion of all minimum requirements prior to the start of the program professional phase. Admitted students will need to submit ALL official college transcripts directly to their hospital program prior to matriculation. Accepted students are required to have completed a health screening, updated immunizations and tuberculosis screening according to current Centers of Disease Control and Prevention (CDC) recommendations for health

professionals, background investigation and drug screening prior to beginning the professional phase of the program. Clinical students are required to maintain health insurance coverage, at their own expense, for the duration of the program.

Accepted students transitioning into the clinical phase of the program must adhere to all policies and maintain all progression standards outlined and provided by their cooperating hospital partner. See the Progression Standards section for more details.

Students interested in applying to the professional phase of the program must meet the following minimum requirements:

1. Fulfillment of Carroll University general education and graduation requirements.
2. A minimum GPA of 3.0 with a grade of 'C' or better in pre-requisite and specific science coursework. Grades for course repeats will be averaged. The hospital may choose to consider the most recent grades as a representation of the students' academic ability if prior course attempts are greater than three years old.
3. Current Certified Nursing Assistant (CNA) license (at the student's own expense) earned through a credit-based course (2-credits minimum) from an institution of higher education in which a letter grade is assigned (not a pass/fail course).
4. Accumulation of 100 hours minimum direct patient care as a CNA as verified by employer must be completed by December 31st of the application year. CNA course hours do not count towards the 100 direct patient care hour total.
5. Completion of a drug-screening consent form.
6. Two reference forms accompanied by separate professional letters of recommendation dated within six months of the application deadline.
7. Submission of official transcripts from all colleges and universities attended. Transfer courses without a posted transcript grade will not be accepted as complete.
8. A written autobiographical statement highlighting the applicant's previous four years and outlining the applicant's desire to become a sonographer and attend that specific hospital's program.
9. A documented job shadowing experience of a minimum of eight hours (four hours in cardiography and four hours in general sonography).
10. Current American Heart Association CPR certification (at the student's own expense) in Basic Life Support (BLS).
11. Completion of an approved course in Medical Terminology. Specific requirements apply(see advisor for details).
12. Submission of background check disclosure and authorization.
13. ANP 140 Introduction to Human Anatomy and Physiology II and NRS 236 Human Pathophysiologic Responses must be completed or in progress at the time of interviews (spring semester following fall application submission). All other courses must be completed by the start of the hospital program. Acceptance offers will be contingent on the completion of the required courses prior to the start of the hospital with the required minimum GPA.
14. Applicable AP credit for required courses will be considered.
15. All applicants must submit a \$50.00 non-refundable application fee by check or money order to each hospital they are applying to.

Bachelor of Science in Nursing Degree Admission

The nursing program admits qualified students regardless of race, color, creed, sex, age, sexual orientation, national or ethnic origin or handicap that does not interfere with the performance of professional nursing as provided by law. Students can enter the nursing program in one of two ways:

Direct Admission - Individuals matriculate directly from high school into the nursing major with successful completion of the following:

1. One year of high school Algebra II, biology and chemistry (grade C or better).
2. Attain an ACT of 21 or higher and high school cumulative GPA 2.75 or higher.
3. Applicants who have English as a Second Language are required to take the TOEFL and achieve a minimum score of 79, unless satisfactory SAT/ACT scores are available.
4. Submission of the Technical Standards for Admission to and Progression in the Nursing Program upon acceptance to program.

5. In some instances, applicant files are referred to a Selection Committee for review and action. That body may grant admission provided certain conditions are met or may require the student to satisfy specified criteria.
6. Admission and progression standards are subject to change based on regulatory, licensing and/or certification needs.

Delayed Admission - Students who enroll at Carroll, not having been admitted to the program through direct admission, including pre-nursing, change of major and transfer student applicants, may apply to the nursing major upon satisfaction of the following criteria.

1. Submission of a Nursing Program application, and if a transfer student, submission of a Carroll University application.
2. Submission of transcripts from an accredited secondary school and all post-secondary institutions attended. Applicants must be eligible to return in good standing (be free of academic or disciplinary probation) to all institutions previously attended as documented on the college report form.
3. A cumulative GPA of 2.75 or higher in college coursework.
4. A professional GPA of 2.75 or higher in college coursework, including completion of ANP 130 and CHE 101 (grade of BC or higher)
5. A minimum course grade of BC is required in all transfer coursework used to calculate the professional GPA (ANP 130, ANP 140, BIO 212, CHE 101, CHE 102, HSC 300 and nursing electives).
6. Candidates with science coursework more than five years old, may be required to repeat coursework prior to application.
7. Written statement to include reason for seeking the BSN degree.
8. Submission of the Technical Standards for Admission to and Progression in the Nursing Program upon acceptance to program.
9. Admission and progression standards are subject to change based on regulatory, licensing and/or certification needs.

Applications and credentials for admission to the nursing program must be submitted to the Office of Admission. Decisions are made by a selection committee and applicants are notified through the Office of Admission. Students not admitted to the nursing program are encouraged to seek assistance through the Center for Academic Advising Services.

Carroll University Honors Program

We are pleased you have decided to apply for admission to the Carroll University Honors Program. You can access the application at the following link, [click here](#).

Upon completion of Carroll University admission to the nursing program, all freshman applicants are considered for the Honors Program. Following a comprehensive review by the Honors Program Committee, the Carroll Student Scholars Committee invites selected candidates to apply to the program.

Neurodiagnostic Technology Admission

Entry into the Advocate Aurora Health professional phase is competitive and dependent upon the completion of multiple requirements. The acceptance of students into the professional phase of the program is determined solely by the admissions committee of the partnering hospital. **Meeting the minimum requirements does not guarantee acceptance into the hospital phase and there are typically more applicants than seats available in the program. It is strongly recommended that students enrolled in this program have a parallel plan in the event clinical phase admission is not attained.**

The program admits qualified students regardless of race, color, creed, gender, age, sexual orientation, marital status, national or ethnic origin or handicap that does not interfere with the performance of professional neurodiagnostic technology practice as provided by law. Advocate Aurora Health in partnership with Carroll University is currently seeking Commission on Accreditation of Allied Health Education Programs (CAAHEP) accreditation for the BS in Neurodiagnostic Technology (NDT) program.

There is only one application cycle for the professional program each year. Students typically apply in the fall semester of sophomore year or once all of the pre-requisite courses and other requirements are completed by the application deadline of September 15. Students will work closely with the Health and Medical Sciences Advisor to submit a complete application file which is reviewed by the Neurodiagnostic Technology Program Admissions Committee. Students accepted into the program begin the two-year professional phase with the hospital partner that fall (a year after first submitting their application). Upon successful completion of the professional program, students earn a Carroll University Bachelor of Science degree in Neurodiagnostic Technology and are prepared to sit for national certification through the American Board of Registration of Electroencephalographic and Evoked Potential Technologists (ABRET). Due to the highly specialized nature and requirements of this program, the students will work closely with the Carroll University Health and Medical Sciences Advisor.

Program acceptance offers are contingent upon the successful completion of all minimum requirements prior to the start of the program professional phase. Admitted students will need to submit ALL official college transcripts directly to their hospital program prior to matriculation. Accepted students are required to have completed a health screening, updated immunizations and tuberculosis screening according to current Centers of Disease Control and Prevention (CDC) recommendations for health professionals, background investigation and drug screening prior to beginning the professional phase of the program. Clinical students are required to maintain health insurance coverage, at their own expense, for the duration of the program.

Accepted students transitioning into the clinical phase of the program must adhere to all policies and maintain all progression standards outlined and provided by the cooperating hospital partner. See the **Progression Standards** section of the catalog for more details.

The NDT Program provides two ways for students to enter the Neurodiagnostic Technology program:

1. Direct Admission (Freshman-level of entry)

Direct admission entry provides select incoming first-time freshmen matriculating directly out of high school an opportunity to enter directly into the pre-NDT phase of the program and receive a guaranteed NDT seat, provided progression standards and cohort requirements are met. The NDT program comprises four total years of study.

Direct admission selection decisions will be based on evaluation of:

1. Carroll University general admission undergraduate application.
2. Those accepted for NDT direct admission must submit and meet program Safety and Technical Standards.
3. Transcript from an accredited secondary school which shows six semesters of coursework. It is recommended that a senior course schedule is included with general application materials. In addition, the following high school courses are required, with grades of "C" or higher:

- Three or more years of high school mathematics
- One or more years of high school biology
- One or more years of high school chemistry
- ACT composite score of 21 or SAT total score of 1060
- High school weighted GPA of 2.75

Recommended:

- One or more years of high school physics

Students directly admitted to the NDT program must earn a minimum 3.0 cumulative and professional GPA. The professional GPA is calculated with the following courses (or their equivalent): ANP130, ANP140, PHY101, PHY102 and NDT275 or their equivalent. Professional phase courses may only be repeated once.

2. Non-direct Admission

Students who enroll at Carroll, not having been admitted to the program through direct admission, can apply to the professional phase of the NDT program. Admission decisions will be made by the NDT Program Admissions Committee.

Items required for application:

1. Fulfillment of Carroll University general education and graduation requirements.
2. A cumulative GPA of 2.8 or higher is suggested for application
3. Pre-professional GPA of 2.8 or higher is suggested for application. The professional GPA is calculated with the following courses (or their equivalent): ANP130, ANP140, PHY101, PHY102 and NDT275
4. A minimum course grade of "C" is required in all coursework used to calculate pre-professional GPA.
5. Completion of the Pioneer Core (with the exception of CCS400) and required Support Courses (ANP130, ANP140, PSY101, COM207, PHY101, PHY102 and NDT 275) prior to beginning the professional phase of the program.
6. Submission of official transcripts from all colleges and universities attended.
7. A written autobiographical statement highlighting the applicant's previous four years and outlining the applicant's desire to become an NDT and attend the specific hospital program at Advocate Aurora.
8. Documented patient care experience.
9. Current American Heart Association CPR certification (at the student's own expense) in Basic Life Support (BLS).
10. Completion of an approved course in Medical Terminology. Specific requirements apply (see advisor for details).
11. Submission of background check disclosure and authorization and drug screen consent form.
12. Completion and submission of technical standards form.
13. A documented job shadowing experience is highly recommended.
14. May only repeat a course once and not be on academic probation.
15. Admission and progression standards are subject to change based on regulatory licensing, and/or certification needs.

Pre-Exercise Physiology Graduate Program

Admission

The Pre-Exercise Physiology Program admits qualified students regardless of race, color, creed, gender, age, sexual orientation, national or ethnic origin, or disability that does not interfere with the performance of professional practice as provided by law. The Master of Science in Exercise Physiology Program has a Clinical Exercise Physiology (CEP) focus.

Students can enter the Exercise Physiology Program - Clinical in one of three ways:

1. **Prior Degree** - Previous degree applicants who have completed an undergraduate or graduate degree from Carroll or another institution.
2. **3 + 2 Completion** - Current Carroll University undergraduate student seeking a Bachelor of Science degree in Exercise Science who intends to follow the 3 + 2 completion plan. The applicant generally is of junior standing when applying to the program. The 3 + 2 completion plan requires the first three years of study to be completed at the undergraduate level of study with a major in exercise science (with verification through a degree audit that 128 total credits will be earned upon completion of year one of the graduate program). The final two years consists of graduate level study in the Exercise Physiology Program. Upon completion of the first year of the Exercise Physiology Program, a Carroll University Bachelor of Science degree in Exercise Science is awarded, and upon successful completion of all graduate credits (58 total credits), the Exercise Physiology degree is awarded.

3. **Direct Admission (freshman or sophomore level of entry)** - Current freshman and sophomore Carroll University undergraduate students seeking a Carroll bachelor's degree may apply for direct admission consideration through the Carroll Office of Admission. To be considered for direct admission, applicants must complete two semesters of Anatomy & Physiology with a lab (equivalent to Carroll's ANP 130 & ANP 140) and apply by May 1st of the spring semester of the freshman and/or sophomore year. Candidates who are granted direct admission must meet the direct admission progression requirements listed in the graduate catalog.

Applications and credentials for admission to the Exercise Physiology Program must be submitted for processing to the Carroll University Office of Admission. As decisions are made on applications, applicants are notified through the Office of Admission. Applicants must be eligible to return in good standing (be free of academic or disciplinary probation) to all institutions previously attended.

Admission and progression standards are subject to change based on regulatory, licensing and/or certification needs.

Pre-Physical Therapy and Entry-Level Doctor of Physical Therapy Program Admission

The entry-level Doctor of Physical Therapy Program admits qualified students regardless of race, color, creed, gender, age, sexual orientation, national or ethnic origin, or disability that does not interfere with the performance of professional physical therapy practice as provided by law. Applications and credentials for admission to the physical therapy program must be submitted for processing to the Carroll University Office of Admission. As decisions are made on applications, applicants are notified through the Office of Admission. Students can enter the physical therapy program in one of three ways: direct admission, non-direct admission, or non-traditional admission.

Direct Admission Option - Individuals with direct admission status matriculate directly from high school into the pre-professional phase of the program. The pre-professional phase includes the Freshman, Sophomore and Junior years at the University and follow the 3+3 cohort. If a student with direct admission status meets all progression standards after his or her junior year at the University, he or she transitions into year one of the professional phase of the DPT Program during their senior year. This option allows students to earn an undergraduate bachelor's degree after year one of the DPT program as well as the entry-level DPT degree after year six.

Direct admission selection decisions will be based on evaluation of:

1. Carroll University general admission undergraduate application.
2. Carroll University Physical Therapy Direct Admission Committee review:
 - Physical Therapy Early Decision Admission Option
 - Physical Therapy Regular Decision Admission Option
3. Those accepted for physical therapy direct admission must submit and meet program Safety and Technical Standards.
4. Transcript from an accredited secondary school which shows six semesters of coursework. It is recommended that a senior course schedule is included with general application materials. In addition, the following high school courses are strongly recommended, with grades of "C" or better:
 - One or more years of high school biology
 - One or more years of high school chemistry
 - Two or more years of high school foreign language
 - Three or more years of mathematics
 - One year of physics

Pre-approved Physical Therapy Direct Admission Majors:

- Biology
- Business Administration
- Communication
- Exercise science

- Health care administration
- History
- Psychology
- Public Health
- Sociology
- Spanish

During their freshman, sophomore and junior years at the University, students with direct admission status pursue their undergraduate degrees in existing Carroll majors which have a pre-physical therapy emphasis. Approved 3+3 cohort majors are biology, business administration, communication, exercise science, health care administration, history, psychology, public health, sociology and Spanish. The undergraduate degree for students in the 3+3 cohort is completed the senior year while enrolled in the first year (Year I) of the professional phase of the Physical Therapy Program.

Pre-physical therapy students with direct admission status must satisfy all of the following progression requirements by the end of spring semester junior year at the University to advance into Year I of the professional phase of the program in their senior year:

1. A university cumulative grade point average of 3.2 or higher at the time of application for progression, which includes fall semester grades of the junior year and prior to progressing into Year I of the professional phase.
2. A pre-professional course grade point average of 3.2 or higher at the time of application for progression, which includes fall semester grades of the junior and prior to progressing into Year I of the professional phase. Pre-professional courses include:
 - 4 semesters of Biology, either BIO 120/BIO 125 or ANP 130/ANP 140 and ANP 402/ANP 403
 - 2 semesters of Chemistry, either CHE 101/CHE 102 or CHE 109/CHE 110 or CHE 203/CHE 204
 - 2 semesters of Physics, either PHY 101/PHY 102 or PHY 203/PHY 204
 - 1 semester of Psychology, either PSY 101 or higher. Up to one additional psychology course, at a 200-level or higher, will be included in the pre-professional GPA calculation if completed.
3. A minimum course grade of "C" is required in all course work used to calculate the pre-professional GPA.
4. A maximum of one course within the pre-professional course work (i.e., biology, chemistry, physics, and psychology disciplines) may be repeated and used in the pre-professional GPA calculation. Any Carroll undergraduate credit with an earned C, D, or F grade can be retaken at Carroll and will be used in the GPA calculation(s).
5. Successful completion of the following by the end of spring semester junior year (3+3 cohort). All items under 1, 2, and 3 below are due by mid-December junior year:
 1. Carroll University Graduate Studies On-line Application for admission to progress into Year I of the Doctor of Physical Therapy Program Professional Phase.
 2. Supplemental Application Materials, which include:
 - Clinical Experience Documentation form(s): Participation in a minimum of two clinical observation experiences from two different types of physical therapy practice settings which include inpatient acute care, inpatient rehab/sub-acute rehab facility, nursing home facility/extended care, outpatient free-standing PT or hospital clinic, school/pre-school, industrial/occupational health, or home health. A Clinical Experience Documentation form must be submitted to the admission office and experiences must be completed under licensed physical therapists. Two different practice settings with a minimum of 16 total hours is required.
 - One letter of reference from a university professor
 - Safety and Technical Standards form
 - Application for Graduation: Carroll current students must submit an application for graduation to the Registrar's Office prior to the application deadline to receive a graduation audit.
 3. Official GRE scores: Carroll's School Code is 1101 and Department Code is 0619
 4. Carroll University General Education Requirements, with the exception of CCS 400 Global Perspectives Colloquium, which may be completed in Year I of the professional phase of the program.
 5. Pre-professional prerequisite courses (see above for specific course details). Test credits will not satisfy the natural, health and social science physical therapy prerequisite coursework requirements.

6. Two semesters of Computational Thinking (CMP 112/CMP 114). Pre-PT psychology majors may substitute CMP 114 for PSY 205 and health care administration and business administration majors may substitute BUS 114 for CMP 114.
2. The CPR certification must be either American Heart Association Basic Life Support for Healthcare Providers or American Red Cross CPR/AED for the Professional Rescuer. Certification for American Red Cross CPR/AED and First Aid is occasionally available on campus to Carroll University students. First Aid certification must be through an organization recognized as a valid issuer of certification such as the American Red Cross or American Heart Association. Copies of your CPR and First Aid certifications are to be submitted during the first week of classes and certifications must be valid for at least one year at the time of entry into Year I of the professional phase.
3. Physical therapy professional phase students are required to have completed a health screening, updated immunizations and tuberculosis screening according to current Centers of Disease Control and Prevention (CDC) recommendations for health professionals, criminal background investigation and drug screening as required by internship placement sites. Exceptions to the immunization requirements will be considered on a case-by-case basis where, for example, a student has an allergy to a vaccine or one of its components. If an exception to the immunization requirements is approved, the University cannot guarantee that its affiliated hospitals and clinics will allow the student to participate in patient care, which is a fundamental requirement of the clinical education component of the Program.
4. All bachelor degree requirements must be completed by the end of Year I of the professional phase of the DPT program.
5. Admission and progression standards are subject to change based on regulatory, licensing, and/or certification needs. *If, for any reason, a direct admit student does not advance into or withdraws from the Doctor of Physical Therapy program, career services and counseling through the Career Center and Advising Office is available. Any direct admit student who withdraws from the program during his/her freshman, sophomore or junior year must inform the program director in writing and complete a new major, minor declaration form in the Registrar Office.*

Non-Direct Admission Option - Students not selected for direct admission will follow the non-direct admission process. Examples of non-direct admission candidates include: high school students not selected for direct admission, undergraduate transfer students, Carroll alumni, and direct admission students who apply outside of their approved cohort year. Applicants who complete 60 or more undergraduate degree credits and will earn a bachelor's degree from Carroll receive a calculated preference in consideration for the professional phase of the program. Non-direct admission students may apply to the professional phase of the DPT program during their junior year at Carroll and reference the below admission criteria. Non-Direct Admission applicants who apply after their junior year at Carroll must reference the current graduate catalog for admission requirements.

Non-Direct Admission applicants who apply in their junior year at Carroll must comply with and meet the following requirements for admission into Year I of the Doctor of Physical Therapy Program, which include:

1. A university cumulative grade point average of 3.2 or higher at the time of application, which includes fall semester grades of the junior year, and prior to matriculating into the professional phase.
2. A pre-professional course grade point average of 3.2 or higher at the time of application, which includes fall semester grades of the junior year, and prior to matriculating into the professional phase. Pre-professional courses include:
 - 4 semesters of Biology, either BIO 120/BIO 125 or ANP 130/ANP 140 and ANP 402/ANP 403
 - 2 semesters of Chemistry, either CHE 101/CHE 102 or CHE 109/CHE 110 or CHE 203/CHE 204
 - 2 semesters of Physics, either PHY 101/PHY 102 or PHY 203/PHY 204
 - 1 semester of Psychology, either PSY 101 or higher. Up to one additional psychology course, at a 200-level or higher, will be included in the pre-professional GPA calculation if completed.
3. A minimum course grade of "C" is required in all course work used to calculate the pre-professional GPA.
4. A maximum of one course within the pre-professional, prerequisite coursework (i.e., biology, chemistry, physics, and psychology) may be a repeated and used in the pre-professional GPA calculation. Any Carroll undergraduate credit with an earned C, D, or F grade can be retaken at Carroll and will be used in the GPA calculation(s).
5. Successful completion of the following prior to the start of Year I of the professional phase of the program. All items under 1, 2, and 3 below are due by mid-January junior year:
 1. Carroll University Graduate Studies On-line Application for the Doctor of Physical Therapy Program Professional Phase.
 2. Supplemental Application Materials, which include:
 - Clinical Experience Documentation form(s): Participation in a minimum of two clinical observation experiences from two different types of physical therapy practice settings which

include inpatient acute care, inpatient rehab/sub-acute rehab facility, nursing home facility/extended care, outpatient free-standing PT or hospital clinic, school/pre-school, industrial/occupational health, or home health. A Clinical Experience Documentation form must be submitted to the admission office and experiences must be completed under licensed physical therapists. Two different practice settings with a minimum of 16 total hours is required.

- Three Letters of Reference: specifically, one from a licensed physical therapist, one from a university professor, and one from a non-family member that attests to the student's character.
 - Essay - must be typed.
 - Resume or Employment, Service, and Academic Honor(s) Form: Participation in university or community service activities documentation is required.
 - Health Science Statement(s) Form.
 - Safety and Technical Standards form.
 - Application for Graduation Form: Only Carroll current students must submit an application for graduation to the Registrar's Office prior to the application deadline to receive a graduation audit.
3. Official GRE: Carroll's School Code is 1101 and Department Code is 0619
 4. Carroll University General Education Requirements, with the exception of CCS 400 Global Perspectives Colloquium, which may be completed in Year I of the professional phase of the program for 3+3 candidates only.
 5. Pre-professional prerequisite courses (see above for specific for course details). Test credits will not satisfy the natural, health and social science prerequisite coursework requirements.
 6. Two semesters of Computational Thinking (CMP 112/CMP 114). Pre-PT psychology majors may substitute CMP 114 and health care administration and business administration majors may substitute BUS 114 for CMP 114.
 7. Evidence that the bachelor's degree will be awarded at the completion of the senior year.
 8. The CPR certification must be either American Heart Association Basic Life Support for Healthcare Providers or American Red Cross CPR/AED for the Professional Rescuer. Certification for American Red Cross CPR/AED and First Aid is occasionally available on campus to Carroll University students. First Aid certification must be through an organization recognized as a valid issuer of certification such as the American Red Cross or American Heart Association. Copies of your CPR and First Aid certifications are to be submitted during the first week of classes and certifications must be valid for at least one year at the time of entry into Phase I.
 9. Physical Therapy professional phase students are required to have completed a health screening, updated immunizations and tuberculosis screening according to current Centers of Disease Control and Prevention (CDC) recommendations for health professionals, criminal background investigation and drug screening as required by internship placement sites. Exceptions to the immunization requirements will be considered on a case-by-case basis where, for example, a student has an allergy to a vaccine or one of its components. If an exception to the immunization requirements is approved, the University cannot guarantee that its affiliated hospitals and clinics will allow the student to participate in patient care, which is a fundamental requirement of the clinical education component of the Program.
 10. Admission and progression standards are subject to change based on regulatory, licensing, and/or certification needs.

Non-Traditional Option: An individual who has completed an undergraduate degree at another institution may apply for admission to the professional phase of the Doctor of Physical Therapy program. Non-traditional applicants are reviewed in a competitive pool consisting of non-traditional and non-direct admission applicants. Please refer to the graduate catalog for the non-traditional student requirements for admission. Please be advised that applicants completing a bachelor's degree and 60 or more undergraduate credits at Carroll University receive a calculated preference in consideration for admission to the DPT Program.

Radiologic Technology Program Admission

Entry into the Ascension-St. Joseph, Advocate Aurora Health or Froedtert Hospital professional phase is highly competitive and dependent upon the completion of multiple requirements. The acceptance of students into the professional phase of the program

is determined solely by the admissions committee at each hospital's independent School of Radiologic Technology. **Meeting the minimum requirements does not guarantee acceptance into the hospital phase and there are typically more applicants than seats available in the program. It is strongly recommended that students enrolled in this program have a parallel plan in the event clinical phase admission is not attained.**

The program admits qualified students regardless of race, color, creed, gender, age, sexual orientation, marital status, national or ethnic origin or handicap that does not interfere with the performance of professional sonography/radiologic technology practice as provided by law.

There is only one application cycle for the professional program each year. Students typically apply in the fall semester of sophomore year or once all of the pre-requisite courses and other requirements are completed by the application deadline of November 15. Students will work closely with the Health and Medical Sciences Advisor to submit a complete application file which is reviewed by the School of Radiologic Technology Admissions Committee at each hospital. Qualified students will be contacted for a personal interview in the spring semester after the fall application period. Students accepted into the program begin the two-year professional phase with the hospital partner that fall (a year after first submitting their application). Upon successful completion of the professional program, students earn a certificate in Radiologic Technology and a Carroll University Bachelor of Science degree in Health Sciences with an emphasis in Radiologic Technology. Due to the highly specialized nature and requirements of this program the students will work closely with the Carroll University Health and Medical Sciences Advisor.

Program acceptance offers are contingent upon the successful completion of all minimum requirements prior to the start of the program professional phase. Admitted students will need to submit ALL official college transcripts directly to their hospital program prior to matriculation. Accepted students are required to have completed a health screening, updated immunizations and tuberculosis screening according to current Centers of Disease Control and Prevention (CDC) recommendations for health professionals, background investigation and drug screening prior to beginning the professional phase of the program. Clinical students are required to maintain health insurance coverage, at their own expense, for the duration of the program.

Accepted students transitioning into the clinical phase of the program must adhere to all policies and maintain all progression standards outlined and provided by their cooperating hospital partner. See the Progression Standards section for more details.

Students interested in applying to the professional phase of the program must meet the following minimum requirements:

1. Fulfillment of Carroll University general education and graduation requirements.
2. A minimum GPA of 2.5 with a grade of 'C' or better overall and in specific science and math pre-requisite coursework. Grades for course repeats will be averaged and any attempts beyond two will not be recognized.
3. Direct patient care experience. Students may complete this by volunteering or choosing to work as a CNA (at the student's own expense), Clinical Imaging Assistant or Transporter. Customer service/communication experience is desired and additional consideration is given for healthcare experience.
4. Completion of a drug-screening consent form.
5. Three reference forms accompanied by separate professional letters of recommendation dated within six months of the application deadline.
6. Submission of official transcripts from all colleges and universities attended.
7. A written autobiographical statement highlighting the applicant's previous four years and outlining the applicant's desire to become a radiologic technologist and attend that specific hospital's program.
8. A documented job shadowing experience of a minimum of four hours.
9. Current American Heart Association CPR certification (at the student's own expense) in Basic Life Support (BLS).
10. Attendance at a mandatory information session held at the hospital program is required prior to applying for Advocate Aurora Health. Ascension - St. Joseph and Froedtert Hospital require attendance after the application deadline, prior to candidate interviews.
11. Completion of an approved course in Medical Terminology. Specific requirements apply. (see Advisor for details)
12. Submission of background check disclosure and authorization.
13. Intro to Anatomy and Physiology I and II (ANP 130 and ANP 140) and PHY 101 must be completed by the application deadline. All other courses must be completed by the start of the hospital program. Acceptance offers will be contingent on the completion of the required courses prior to the start of the hospital with the required minimum GPA.

Air Force ROTC Information

Carroll University students have the opportunity to fully participate in the Air Force Reserve Officers Training Corps program. Students enrolled in the Air Force ROTC program attend AFROTC courses at Marquette University.

Through this program, Carroll University offers its students the opportunity to prepare for initial active duty assignments as Air Force Commissioned Officers. In order to receive a commission, AFROTC cadets must complete all university requirements for a degree and courses specified by the Air Force. AFROTC offers four, three, and two year programs leading to a commission as an Air Force officer. Four-year program students complete the general military course and the professional officer course, in addition to a four-week summer field training between their second and third years in the program. Two-year students complete only the professional officer course, but have a five-week summer field training before entering the professional officer course.

General qualifications:

- be a full-time student
- be a United States citizen (for scholarship appointment)
- be in good physical condition
- be of good moral character
- for pilot or navigator training, fulfill all commissioning requirements before age 26 1/2
- for scholarship recipients, fulfill commissioning requirements before age 27 on June 30 in the estimated year of commissioning
- for non-scholarship students, fulfill all commissioning requirements before age 30

General Military Course: The first-and second-year educational program in Air Force Aerospace Studies consists of a series of one-hour courses designed to give students basic information on world military systems and the role of the U.S. Air Force in the defense of the free world. All required textbooks and uniforms are provided free. The general military course is open to all students at Carroll University without advance application and does not obligate students to the Air Force in any way.

Field Training: AFROTC Field Training is offered during the summer months at selected Air Force bases throughout the U.S. and provides leadership and officer training in a structured military environment. Major areas of study include physical training, drill and ceremony, marksmanship, and survival training. The Air Force pays all expenses associated with field training.

Professional officer course: The third and fourth years of Air Force Aerospace Studies are designed to develop skills and attitudes vital to the professional officer. Students completing the professional officer course are commissioned as officers in the U.S. Air Force upon university graduation. All students in the professional officer course receive a nontaxable subsistence allowance of \$200 per month during the academic year. Students wanting to enter the professional officer course should apply early in the spring semester in order to begin this course of study in the following fall semester.

Leadership Laboratory: Leadership laboratory is a cadet-centered activity. It is largely cadet planned and directed, in line with the premise that it provides leadership training experience that will improve a cadet's ability to perform as an Air Force officer. The freshman and sophomore leadership laboratory program introduces Air Force customs and courtesies, drill and ceremonies, wearing the uniform, career opportunities in the Air Force, education and training benefits, the life and work of an Air Force officer, and opportunities for field trips to Air Force installations throughout the U.S. Initial experiences include preparing the cadet for individual squadron and flight movements in drill and ceremonies and for the field training assignment prior to the junior year.

The junior and senior leadership laboratory program involves the cadets in advanced leadership experiences. Cadet responsibilities include planning and directing the activities of the cadet corps, preparing briefings and written communications, and providing interviews, guidance, information and other services which will increase the performance and motivation of other cadets.

AFROTC College Scholarship and Scholarship Actions Programs: These programs provide scholarships to selected students participating in AFROTC. While participating in AFROTC, students receive \$200 per month along with paid tuition, fees, and a fixed text-book reimbursement. To be eligible for either of these programs, students must:

- Be a U.S. citizen.
- Be at least 17 years of age on the date of enrollment and under 27 years of age on June 30 of the estimated year of commissioning.
- Pass an Air Force physical exam.
- Be selected by a board of Air Force officers.
- Have no moral objections or personal convictions that prevent bearing arms and supporting and defending the Constitution of the United States against all enemies, foreign and domestic. (Applicants must not be conscientious objectors.)
- Achieve a passing score on the Air Force Officer Qualifying Test.
- Maintain a quality grade point average.

High school students can apply for scholarships late in their junior year or early in their senior year; pre-applicant questionnaires are available from high school guidance counselors or any Air Force recruiting office. Completed pre-applicant questionnaires should be mailed as soon as possible (to meet the earliest selection board) but will not be accepted if mailed after December 1 of the year before entering university. For students already enrolled at Carroll, three-and two-year scholarships are available. Submit applications directly to the Department of Aerospace Studies at Marquette University. For more information, call 414.288.7682.

Note to Students

This catalog provides general information about Carroll University, and it summarizes important information about the University's policies, requirements for graduation, regulations and procedures. It is not intended to establish, nor does it establish, a contractual relationship with students. Rather, the Catalog is published to acquaint students with information that will be helpful to them during their university careers.

It is necessary in the general administration of the University to establish requirements and regulations governing the granting of degrees. Academic advisers, other faculty and academic staff members are available to aid students in understanding the requirements and regulations. It is the students' responsibility, however, to meet them. Students are encouraged to keep this Catalog as a reference, should questions arise.

Changes in curricular requirements may occur between catalog publications. Students will be informed of such changes. When this occurs, students may follow the requirements in effect at the time they entered or they may follow the changed requirements. However, the courses that students take to meet General Education and Distribution requirements must conform to the Catalog year in which the courses are taken. For other degree requirements, students must choose to follow one Catalog or the other; they may not pick and choose from the various requirements outlined in two or more Catalogs. Students must follow the curriculum requirements of any one Catalog in effect during their enrollment. Programs with additional accreditation standards may have different course requirements from the student's original Catalog. Progression standards are subject to change based on regulatory, licensing, and/or certification needs. Students returning to the University after an absence of one academic year or more must meet the degree requirements of the Catalog in effect upon their return or of a subsequent Catalog. Reasonable substitutions will be made for discontinued and changed courses.

The University reserves the right to make other necessary changes without further notice.

3 + Program Policy

Students accepted into and enrolled in any 3 + 2 or 3 + 3 program at Carroll University will begin professional graduate level study in the 4th year of the program, after meeting progression requirements for the individual program. These students will take graduate level courses in their 4th year of study as an undergraduate student, be charged undergraduate full-time tuition and will be counted as undergraduate students. Upon successful completion of courses in the 4th year, students will earn a bachelor's degree and continue in the graduate program to complete the post-secondary degree.

Students that enroll in a graduate program that has been designated as a 3 + 2 or a 3 + 3 program, with a prior bachelor's level degree, will enter Carroll University as an undergraduate, non-degree seeking student and will be charged as an undergraduate for that first year (fall and spring semesters).

Trustees and Faculty

Officers

Chair	Dorval R. Carter '79
Vice Chair	Deborah A. Block '74
Treasurer	Lynda Johnson '80
Secretary	Mark Roble '77
President of the University	Cindy Gnadinger

Trustees

Deborah A. Block '74, Senior Pastor, Immanuel Presbyterian Church, Milwaukee, Wisconsin

Christy L. Brown, CEO, Girl Scouts of Wisconsin Southeast, Milwaukee, Wisconsin

Dorval R. Carter '79, President, Chicago Transit Authority, Chicago, Illinois

Reynolds R. Challoner '64, President, NEW Paradigm Advisors LLC, Sanibel, Florida/Green Bay, Wisconsin

Sandra L. Cunningham, '78, Director, Versiti, Inc., Milwaukee, Wisconsin

Kristi Czarnecki '89, Owner, Czarnecki Properties, Pewaukee, Wisconsin

Jefferson V. DeAngelis '80, President/CIO, Northwest Passage Capital Investors, LLC., Milwaukee, Wisconsin

Laura Dexter '76, Pediatric Anesthesiologist and Partner (retired), Metropolitan Anesthesia Network, Jefferson, Wisconsin

Cindy Gnadinger, President, Carroll University, Waukesha, Wisconsin

John J. Hengel '80, Vice President-Finance & Asst. Secretary, Jason Industries, Inc., Milwaukee, Wisconsin

Lynda M. Johnson '80, Assistant Treasurer, Harley-Davidson, Milwaukee, Wisconsin

David H. Laatsch, '95, Vice President, Strategy and Operations Project Management, Aurora Health Care, Milwaukee, Wisconsin

Douglas J. Mueller '80, CEO & President, Breakthrough, Green Bay, Wisconsin

Michael J. Osenga, '75, Publisher, KHL Americas, Brookfield, Wisconsin

Elfried Pahl, '79, Medical Director, Heart Failure and Heart Transplantations, Lurie Childrens Hospital of Chicago, Chicago, Illinois

Renee H. Ramirez, Executive Director, Waukesha County Community Dental Clinic, Waukesha, Wisconsin

Jack Riesch, Owner and Executive Vice President, R&R Insurance, Waukesha, Wisconsin

Mark A. Roble, Retired Chief Risk Officer, Robert W. Baird, Milwaukee, Wisconsin

James M. Schneider '74, Executive Chairman, Horizon Bank, Austin, Texas

Thomas A. Sellars '82, Chairman & CEO, Sellars Absorbent Materials, Milwaukee, Wisconsin

Mark Smith '83, Product Business Manager (retired), Strattec Security Corp., Mequon, Wisconsin

Fred Stier, CEO, Stier Construction, Waukesha, Wisconsin

Joseph P. Zvesper '76, Chairman, President & CEO, American Appraisal Associates, Inc., Milwaukee, Wisconsin

Alumni Representative

Paul Christian, '92, Senior Vice President, R.W. Baird, Milwaukee, Wisconsin

Honorary Life Trustees

Charles W. Anderson '59, Brookfield, Wisconsin

Joan Hardy, Milwaukee, Wisconsin

Lee Melville '50, Waukesha, Wisconsin

Richard H. Miller, Milwaukee, Wisconsin

Carroll Faculty 2019-2020

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

Cindy Gnadinger, 2017

President

B.S., Western Kentucky University

M.Ed., University of Louisville

Ed.D., University of Louisville

Julie Amundson, 2018

Clinical Assistant Professor of Physical Therapy

B.S., UC Davis

M.P.T., UCSF/SFSU

D.P.T., Des Moines University

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Clinical Assistant Professor of Public Health

B.S., University of Wisconsin - Milwaukee

MBA, University of Wisconsin - Milwaukee

Monika Baldrige, 2004

Chair of the Department of Health and Medicine

Professor of Physician Assistant Studies and Biology

B.S., Marquette University

Ph.D., University of Wisconsin-Milwaukee

Barbra J. Beck, 2010
Associate Professor of Public Health
B.A., College of St. Benedict
M.S., Colorado State University
Ph.D., University of Wisconsin-Milwaukee

Daniel Becker, 2006
Associate Professor of Graphic Design
B.A., University of Wisconsin-Eau Claire
M.A., DePaul University

Jason E. Bennett, 2017
Assistant Professor of Physical Therapy
B.S., University of Wisconsin-Platteville
MSPT, Clarke University
Ph.D., Rocky Mountain University of Health Professions

Nancy Bennett, 2010
Electronic Resources/Systems Librarian
B.S., University of South Florida
M.L.I.S., University of Wisconsin-Milwaukee

B.J. Best, 2006
Mary Robertson Williams Chair of English, Modern Language and Literature
Associate Professor of English
B.S., Drake University
M.F.A., Washington University

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Associate Professor of Spanish
B.A., University of Delaware
M.A., Purdue University
Ph.D., University of Wisconsin-Madison

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Clinical Assistant Professor of Physical Therapy
B.S., Marquette University
J.D., University of Wisconsin Law School
D.P.T., College of St. Scholastica

James Brandes, 2018
Director of Physician Assistant Studies
Clinical Professor of Physician Assistant Studies
B.S., University of Wisconsin - Eau Claire
M.D., Medical College of Wisconsin

Roberto Brenes, 2013
Assistant Professor of Biology
B.S., Universidad de Costa Rica
M.S., University of Texas, Tyler
Ph.D., University of Tennessee

Elizabeth Bright, 2017
Clinical Assistant Professor of Nursing
RN-BC University of Wisconsin Oshkosh
M.S.N., University of Wisconsin Oshkosh

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Lecturer of Anatomy and Physiology
B.A. University of Wisconsin-Milwaukee
PhD., University of South Carolina

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Director and Lecturer of Instrumental Music
A.S.A., Ricks College (now BYU-Idaho)
B.M.Ed., Brigham Young University
M.M., Brigham Young University
D.M. University of Nevada, Las Vegas

Jessica M. Brown 2017
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B.S. University of Northern Colorado
M.S. University of Northern Colorado
PhD. University of Northern Colorado

Charles A. Byler, 1990
Dean of the College of Arts and Sciences Professor of History
B.A., Whitman College
M.A., University of Washington
Ph.D., Yale University

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Clinical Assistant Professor of Nursing,
Associate Degree Program Director
B.S.N., Carroll College/Columbia College of Nursing
M.S.N., Cardinal Stritch
D.N.P., Concordia University

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Professor of Art
B.A., Whitman College
M.A., M.F.A., University of Iowa

Stephen J. Dannhoff, 2006
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M.S., University of Wisconsin-La Crosse

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Associate Professor of Physical Therapy
B.S.P.T., M.S.P.T., Finch University of Health Sciences, The Chicago Medical School
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Chair of the Department of Visual and Performing Arts Senior Lecturer in Theatre Arts
B.A., University of Illinois at Urbana- Champaign
M.F.A., Northwestern University

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Clinical Assistant Professor
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Assistant Professor of Education
B.S., University of Wisconsin-Madison
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Clinical Assistant Professor of Exercise Science
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M.S., University of Wisconsin-Milwaukee

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Associate Professor of Religious Studies
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Distinguished Lecturer in Business, Accounting and Economics
B.S., Central Michigan University
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B.S., University of North Texas
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Chair of History, Political Science and Religious Studies
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Lecturer, Department of Nursing
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Distinguished Lecturer in Mathematics
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Catherine E. Jorgens, 2006
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B.A., University of Wisconsin-Madison
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Associate Professor of English
B.A., University of California-Santa Barbara
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Margaret D. Kasimatis, 1998
Clinical Associate Professor of Health and Medicine
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B.S.N., Marquette University
M.S.N. - Adult Nurse Practitioner, Marquette University
Post Graduate Certificate-Family Nurse Practitioner from Concordia University
Ph.D., Marquette University

Tayna Katzman, 2018
Lecturer in Chemistry and Biochemistry
B.S., University of Wisconsin - Madison
Ph.D., Purdue University

Barbara J. Kilgust, 2015
Lecturer in English and Writing

B.A., Carroll University
M.A., University of Wisconsin - Milwaukee
Ph.D., University of Wisconsin - Milwaukee

Barbara L. King, 1995
Associate Professor of Communication
B.A., Carroll College
M.A., Purdue University
Ph.D., Wayne State University

Karie Ruekert Kobiske, 2018
Clinical Associate Professor of Nursing,
MSN Program Director
B.S.N., Carroll University
M.S.N., Marquette University
Ph.D., Marquette University

Ashley Knuth, 2015
Clinical Assistant Professor of Physical Therapy
B.S., Carroll University
D.P.T., Carroll University

Michael G. Konemann, 1984
Associate Professor of Computer Science
B.S., Carroll College
M.S., Marquette University

Kathrine Kramer, 2000
Assistant Professor of Education
B.S., M.S., University of Wisconsin-Whitewater

Kerry Kretchmar, 2011
Associate Professor of Education
B.A., New York University
M.S., Pace University
Ph.D., University of Wisconsin-Madison

Jamie Krzykowski, 2008
Athletic Training Program Director and Clinical Associate Professor of Athletic Training
B.S., Northwest Nazarene University
M.S.S., United States Sports Academy
Ph.D., Clayton College of Natural Health

Gregory A. Kuhlemeyer, 2000
Professor of Business
B.S., Western Illinois University
M.B.A., Ph.D., University of Tennessee- Knoxville

Kelly J. LaBlanc, 2010
Senior Lecturer in Environmental Science
B.S., University of Wisconsin-River Falls
M.S., University of Wisconsin-Madison
Ph.D., University of Cincinnati

Jessica Lahner, 2016
Lecturer of Clinical/Counseling Psychology

B.S., University of Wisconsin-Stevens Point
M.S., University of North Texas
Ph.D., University of North Texas

Kristen A. Lampe, 2000
Professor of Mathematics
B.A., University of Dayton
M.A., Ph.D., Washington University in St. Louis

Stephen Lange, 2016
Lecturer in Computational Science
B.S. University of Wisconsin-Whitewater
M.A., Cardinal Stritch University

Brittany Larson, 2009
Associate Director of the Library
B.A., Carroll University
M.L.I.S., University of Wisconsin- Milwaukee

Michael G. Levas, 1985
Associate Professor of Business
B.S., M.B.A., Northern Illinois University

Wendie Leveille, 2017
Program Director, Occupational Therapy
Clinical Assistant Professor of Occupational Therapy
B.S., O.T.D., Concordia University - Wisconsin

Todd D. Levine, 2014
Senior Lecturer in Biology
B.S., University of Missouri -St. Louis
Ph.D., Miami University

Susan E. Lewis, 1994
Professor of Biology
B.A., Earlham College
M.A., Ph.D., University of Minnesota

David B. MacIntyre, 1996
Chair of the Department of Human Movement Sciences
Clinical Associate Professor of Exercise Science
B.S., Hope College
M.S., Pennsylvania State University

Abigail M. Markwyn, 2006
Associate Professor of History
B.A., Carleton College
M.A., Ph. D., University of Wisconsin- Madison

Joel W. Matthys, 2013
Assistant Professor of Music
B.A., Carroll University
M.M., University of Wisconsin-Milwaukee
D.M.A., University of Cincinnati

Kevin McMahon, 2000
Chair of the Department of Computational and Physical Sciences
Associate Professor of Chemistry
Chair of Computational & Physical Science Department
B.Sc., University of Edinburgh
M.Sc., Ph.D., Dalhousie University

Amy E. McQuade, 2010
Clinical Associate Professor of Physical Therapy
B.S., Michigan State University
M.P.T., University of Wisconsin
Ph.D., Medical College of Wisconsin

Rachele Mead, 2019
Lecturer of Nursing
B.S.N., University of Wisconsin - Eau Claire
M.S.N., Regis University

James Mikolajczak, 2016
Clinical Assistant Professor of Nursing
B.S., Chamberlain College
M.S., Chamberlain College

Michael G. Mortensen, 2011
Distinguished Lecturer of Graphic Design
B.Arch. University of Wisconsin - Milwaukee
M.Arch University of Houston

Kerri Murphy, 2018
Clinical Assistant Professor of Physician Assistant Studies
B.S., University of Illinois
M.Ed., National Louis University
M.P.A.S., Midwestern University

Eva Nitka, 2019
Lecturer, Department of Nursing
BSN: Alverno College
MSN: University of Wisconsin Milwaukee

Therese Novotny, 2019
Lecturer of English
B.A., Marquette University
M.A., Marquette University
Ph.D., Marquette University

Thomas Pahnke, 2006
Dean of the College of Health Sciences
Clinical Associate Professor of Physical Therapy and Athletic Training
B.S.P.T., University of Wisconsin-Madison
M.S., Purdue University

Colleen E. Pennell, 2015
Assistant Professor of Education
B.S., Edgewood college
M.Ed., Northern Arizona University
Ph.D., Cardinal Stritch University

April Phillips, 2018
Clinical Assistant Professor of Occupational Therapy
B.S., M.S., Mount Mary College

Joseph J. Piatt, 1998
Professor of Chemistry and Environmental Science
B.S., Marquette University
M.S.C.E., University of Minnesota
Ph.D., University of Arizona

Pamela Pinahs-Schultz, 1980
Professor of Physical Education
B.Ed., University of Wisconsin-Oshkosh
M.S.Ed., Chicago State University
Ph.D., University of Wisconsin-Milwaukee

Kelly Pinter, 2017
Lecturer of Sociology and Criminal Justice
B.A., M.A., University of Illinois - Chicago
Ph.D., Loyola University - Chicago

Kelly Raether, 2017
Lecturer in Nursing
A.S.N., Madison College
M.S.M. Walden University

Kimberly Redding, 2001
Associate Professor of History
B.A., Goucher College
M.A., Ph.D., University of North Carolina-Chapel Hill

Susan I. Riehl, 2004
Public Service/Technical Services Librarian
B.A., M.A., M.L.I.S., University of Wisconsin-Milwaukee

Virginia Riggs, 2019
Lecturer, Department of Nursing
BA: Carroll University
MSN: Bellin College

Michael J. Rodriques, 2014
Clinical Assistant Professor of Nursing
B.A., Purdue University
M.S.N., University of Wisconsin-Milwaukee

Jason T. Roe, 2010
Senior Lecturer in Exercise Science
B.S., University of Wisconsin-Stevens Point
M.S., University of Wisconsin-La Crosse

Massimo A. Rondolino, 2013
Associate Professor of Philosophy
M.A., Università Degli di Pavia
M.A., Ph.D., University of Bristol

Aaron Routhe, 2015
Senior Lecturer of Sociology
B.S., Houghton College
M.A., University of Tennessee - Knoxville
Ph.D., University of Tennessee - Knoxville

Lacey M. Runyon, 2018
Clinical Assistant Professor of Athletic Training
Clinical Education Coordinator
B.S. Clarke College
M.A. Hastings College
DAT Indiana State University

Pacia Sallomi, 1997
Professor of Art
B.S., University of California, Davis
M.A., University of New Mexico
M.F.A., Texas Tech University

Kathleen S. Sampson, 2010
Senior Lecturer in Nursing
B.S.N., University of Wisconsin- Milwaukee
M.S.N., University of Phoenix

Matthew Scheel, 2007
Chair of the Department of Life Sciences
Associate Professor of Psychology
B.A., Winona State University
M.A., Mankato State University
Ph.D., University of Nevada

Tara Schmidt, 2007
Senior Lecturer in Psychology
B.S., Carroll College
M.S., Ph.D., University of Wisconsin- Milwaukee

Christine Schneider, 2011
Associate Professor of Biology
B.S., University of Wisconsin-Madison
M.S., University of Wisconsin-Oshkosh
Ph.D., Medical College of Wisconsin

Susan M. Schneider, 2017
Lecturer of Nursing
BSN., Alverno College
MSN., University of North Dakota

Michael D. Schuder, 1994
Professor of Chemistry
B.S., North Dakota State University
Ph.D., University of Colorado

Marie S. Schwerm, 2011
Senior Lecturer in Computer Science
B.A., Mount Mary College
M.S., Marquette University

Daniel Shackelford, 2017
Assistant Professor of Exercise Science
B.S., University of Northern Colorado
M.S., University of Northern Colorado
PhD, University of Northern Colorado

Miranda Spindt, 2018
Clinical Assistant Professor of Physician Assistant Studies
A.S., Malcom X College
M.S.P.A., A.T. Still University

Rachel L. Stickle, 2008
Senior Lecturer of Education
B.S., Carroll College M.A., California State University-Long Beach
Ed.D., University of Southern California

Thomas E. St. George, 2014
Assistant Professor of Mathematics
B.A., Monmouth College
M.S., University of West Florida
PhD, Northern Illinois University

Timothy Suchomel, 2016
Assistant Professor of Exercise Science
B.S., University of Wisconsin-Oshkosh
M.S., University of Wisconsin-La Crosse
Ph.D., East Tennessee State University

John C. Symms, 1995
Associate Professor of Mathematics
B.S., University of Arizona
M.S., Ph.D., Colorado State University

Carol D. Tallarico, 2014
Professor of Economics
B.A., M.A., DePaul University
Ph.D., University of Illinois at Chicago

Gail M. Vojta, 2007
Distinguished Lecturer in Chemistry
B.A., St. Olaf College
Ph.D., University of Minnesota

Julie VonDerVellen, 2013
Assistant Professor in Graphic Design
B.S., Edgewood College
M.A., M.F.A., University of Wisconsin-Madison

Wayne Wendling,
Senior Lecturer of Analytics
B.A., Ph.D., University of Wisconsin-Milwaukee

Kimberly White, 2009
Chair of the Department of Education
Associate Professor of Education
Chair of the Department of Education

B.S.B.A., M.Ed., The Ohio State University
Ph.D., University of Wisconsin

Tate Wilson, 2012
Senior Lecturer in Physics
B.S., University of Washington
Ph.D., University of Washington

Mary Ann Wisniewski, 2001
Professor of Business
B.A., Alverno College
M.S., University of Wisconsin-Milwaukee
Ph.D., University of Wisconsin-Madison

Joshua Wolf, 2018
Assistant Professor of Psychology
B.S., Carroll University
M.S., Texas Christian University
Ph.D., Texas Christian University

James Zager, 2008
Professor of Theatre Arts
B.S., University of Wisconsin-Stevens Point
M.F.A., Arizona State University

Lisa A. Zajc, 2018
Visiting Lecturer of Accounting
B.S., University of Wisconsin-Whitewater
M.S., University of Wisconsin-Whitewater

Natalya Zinkevich, 2013
Assistant Professor in Health and Medicine
M.S., Saint-Petersburg State
Ph.D., Vavilov Institute of General Genetics

Faculty Awards

Faculty Award Recipients

Recipients of the Benjamin F. Richason Jr. Faculty Award

Earl N. Hudson III (1989)

O. Lamar Cope (1990)

Jack R. Dukes (1991)

David M. Molthen (1992)

Philip L. Krejcarek (1993)

David A. Block (1994)

Virginia M. Parsons (1995)

Richard J. Watkins (1996)

Joseph J. Hemmer Jr. (1997)

James B. Vopat (1997)

Hugo J. Hartig (1998)

Gerald L. Isaacs (1999)

Lori Duin Kelly (2000)

Mary E. Hauser (2001)

Barbara L. King (2002)

Larry D. Harper (2003)

Linda G. Thompson (2004)

Michael D. Schuder (2005)

Richard J. Penlesky (2006)

Chenglie Hu (2007)

Joseph J. Piatt (2008)

Charles A. Byler (2009)

Monika G. Baldrige (2010)

Lilly J. Goren (2011)

Christopher J. May (2012)

Scott Hendrix (2013)

Arthur W. Best (2015)

Susan E. Lewis (2016)

Sara M. Deprey (2017)

Abigail M. Markwyn (2018)

Kevin Guilfooy (2019)

Kerry Kretchmar (2020)

Recipients of the Norman and Louise Allhiser Award for Teaching Excellence

Marceil V. Poltorak (1989)

Lelan E. McLemore (1990)

Mark C. Aamot (1991)

David D. Simpson (1992)

Richard J. O'Farrell (1993)

Pamela Pinahs-Schultz (1994)

Peter L. Settle (1995)

Claudette McShane (1996)

Emily S. Long (1997)

Deirdre M. Keenan (1998)

Ann E. Cook (1999)

Amy A. Cropper (2000)

Charles A. Byler (2001)

Robert G. Black (2002)

Catherine L. Cullen (2003)

Lisa K. Conley (2004)

Mary E. Kazmierczak (2005)

Kathrine Kramer (2006)

Paul L. Rempe (2007)

Kimberly Redding (2008)

Sara Deprey (2009)

Rebecca S. Imes (2010)

James Zager (2011)

Jeffrey T. Kunz (2012)

John Garrison (2013)

Daniel Becker (2014)

John Symms (2015)

Barbara L. King (2016)

Jessica R. Boll (2017)

Monika G. Baldrige (2018)

Kimberly Hofkamp (2019)

Susan M. Hanson (2020)

Endowed Chairs

The Edna M and Edgar A. Thronson Chair in Chemistry

Kevin McMahon

The Mary Robertson Williams Chair in English

B.J. Best, Tim Gallow, and Lara Karpenko

The P.E. and Becky MacAllister Chair in Religious and Biblical Studies

James P. Grimshaw

The Cordelia Pierce Hedges Chair in Theatre Arts

James Zager

Gladys McKay Richter Endowed Chair

Teresa L. Kaul

Exemplary Contributions in Service Award - Faculty and Staff

Elena De Costa (2014)

Theresa L. Johnson (2014)

Ryan T. Corcoran (2015)

John Garrison (2015)

Brittany Larson (2016)

Gary L. Olsen (2016)

Cynara Fode (2017)
Kimberly Redding (2017)

Megan E. Couch (2018)
Lilly Goren (2018)

Vickie K. Ericson (2019)
Lydia C. Guell (2019)

Mary) M. Hensel (2020)

Outstanding Faculty Advisor Award

Susan Hanson (2019)

Susan Lewis (2020)
Jessica Lahner (2020)

Emeriti

Mark C. Aamot, 1974
Professor Emeritus of Music

Judith C. Anderson, 1997
Associate Professor Emeritus of Physical Therapy

Harry A. Auchter, 1953
Associate Professor Emeritus of Physics

Lynne Bernier, 2014
Associate Professor Emeritus of Political Science

Robert G. Black, 1994
Professor Emeritus of Spanish

David A. Block, 1988
Associate Professor Emeritus of Environmental Science

John C. Clausz, 1979
Professor Emeritus of Biology

O. Lamar Cope, 1969
Professor Emeritus of Religion and Philosophy

Joseph M. Dailey, 1972
Associate Professor Emeritus of Communication

Jack R. Dukes, 1970
Professor Emeritus of History

Russel C. Evans, 1969
Librarian Emeritus

Frank S. Falcone, 1993
President Emeritus

Timothy J. Fiedler, 1976
Associate Professor Emeritus of Sociology

Robert J. Friebus, 1975
Associate Professor Emeritus of Sociology

Quinten C. Grosskopf, 1966
Associate Professor Emeritus of Mathematics

Larry Harper, 2017
Professor of Music

Hugo J. Hartig, 1976
Professor Emeritus of Music

Linda Hartig, 1997
Librarian Emeritus

Douglas Hastad, 2018
President Emeritus

Eugene S. Haugse, 1966
Professor Emeritus of Political Science

Earl N. Hudson III, 1970
Professor Emeritus of Chemistry

Uldis E. Inveiss, 1963
Professor Emeritus of Economics and Business Administration

Sidney C. Jones, 1961
Professor Emeritus of English

Deirdre M. Keenan, 2018
Professor Emerita of English

Gay G. Knutson, 1982
Professor Emeritus of Education

Emily S. Long, 1991
Associate Professor Emeritus of Education

Bruce A. MacIntyre, 1968
Professor Emeritus of Biology

R. Merle Masonholder, 1980
Associate Professor Emeritus of Physical Education

David M. Molthen, 1970
Professor Emeritus of Theatre Arts

Merlene A. Moody, 1983
Associate Professor Emeritus of Business Administration

Richard J. O'Farrell, 1973
Professor Emeritus of Mathematics

Gary L. Olsen, 2018
Professor Emeritus of Accounting

Ralph F. Parsons, 1974
Professor Emeritus of Psychology

Virginia M. Parsons, 1976
Professor Emeritus of Psychology

Marceil V. Pultorak, 1970
Professor Emeritus of Art

Paul L. Rempe, 1969
Associate Professor Emeritus of History

Paul A. Roys, 1961
Professor Emeritus of Physics

Thomas F. Selle, 1983
Associate Professor Emeritus of Art

Peter L. Settle, 1974
Professor Emeritus of Communication

Lawrence A. Sinclair, 1958
Professor Emeritus of Religious Studies

Claude H. Slusher, 1958
Professor Emeritus of Business Administration

Daniel T. Steffen, 1974
Assistant Professor Emeritus of Physical Education

Gary W. Stevens, 1970
Associate Professor Emeritus of English

Bruce Strom, 2014
Associate Professor Emeritus of Education

Linda G. Thompson, 1981
Professor Emeritus of Mathematics

John F. Towell III, 1999
Associate Professor Emeritus of Computer Science

James E. Van Ess, 1969
Librarian Emeritus

Glenn A. Van Haitsma, 1958
Professor Emeritus of English

Melvin G. Vance, 2003
Instructor Emeritus in Religious Studies

James B. Vopat, 1972
Professor Emeritus of English

Richard J. Watkins, 1976
Professor Emeritus of Chemistry

William D. Welch Jr., 1987
Professor Emeritus of Physics

Thomas R. Williams, 1966
Professor Emeritus of Philosophy

Manfred G. Wuerslin, 1958
Associate Professor Emeritus of English