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Certificates

Academic Certificate in Orthopedic Technology
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Academic Certificate in Orthopaedic Technology

The Carroll academic Certificate in Orthopaedic Technology program is a series of post professional courses that prepares the certified athletic trainer (ATC) with the knowledge and skills needed for future employment in orthopedic physician offices. The 30 credit curriculum is designed so that ATC's can complete the didactic and clinical education courses in 12 months.

This program prepares athletic trainers to assist physicians involved in musculoskeletal care and treatment. This program is designed to enhance the athletic trainer’s ability to communicate with patients and other healthcare providers, familiarize the athletic trainer with routine office and departmental functions as well as assist and perform certain medical procedures. Key areas or domains of competence and practice include:

- **Musculoskeletal Assessment**: Administration of first aid procedures, performance of a comprehensive orthopedic examination and assistance and performance of typical office procedures and interventions.
- **Casting, Splinting and Orthopaedic Appliances**: General principles of casting and immobilization, cast and splint removal and patient education related to these interventions.
- **Traction**: Assessment, preparation and application of specific types of traction in collaboration with orthopedic physicians.
- **Surgery**: Serve as a first assistant to the orthopedic surgeon in the operating suite, including patient preparation for surgery, assistance during surgical procedures and post-surgical care and wound management.

### Program Mission and Goals

The mission of the academic Certificate in Orthopedic Technology is to prepare certified athletic trainers with the knowledge, skills and abilities required to effectively practice as a physician extender in orthopedic clinic and surgical settings.

### Program Goals

1. Prepare certified athletic trainers with knowledge, skills and abilities required to effectively practice in orthopedic physician clinic and surgical settings.
2. Prepare certified athletic trainers to be effective problem solver, critical thinkers, communicators, and team members in a diverse healthcare environment.
3. Provide a multidisciplinary educational experience for certified athletic trainers that develops interprofessional collaboration in the role of the physician extender.

### Student Learning Outcomes

1. Students will understand and practice within the standards and scope of practice of a certified athletic trainer as outlined by the National Athletic Trainer Association.
2. Students will demonstrate proficiency in orthopedic technology skill domains of casting, bracing, traction and surgery.
3. Students will be able to interpret, synthesize, and present patient information, clinical findings, differential diagnoses/evaluation and subsequent intervention (diagnostic/treatment) plans to supervising physicians.
4. Students will demonstrate the ability critically think and problem solve in a dynamic healthcare environment.
5. Students will demonstrate ability to be an effective communicator amongst health care professionals and diverse patients, family, and community population.
6. Students will demonstrate scientific writing and communication competence through a case study report and oral presentation.

### Admissions

Student’s applying to the program must have completed a BS in athletic training, maintain certification in accordance to the Board of Certification for athletic trainers or in progress of completing certification through a CAATE approved curriculum. Student must have 2 semesters of orthopedic evaluation or equivalent. Additionally minimum 3.0 GPA overall and a 3.0 in Athletic Training courses will be required.

Incoming undergraduate athletic training student will have a direct admit option to the program following graduation. Students that are direct admitted will apply during fall semester of the final year in professional phase of the Athletic Training Education Program. If student meet the minimal program requirements noted above they will receive guaranteed admission.

### Academic Progression Standards

The program has the following academic progression standards:

1) A grade of C or better is required in all courses in the OTC certificate. If a student earns a letter grade of D, F, or U in a course, the student must repeat the course before progressing to subsequent course in the following semester. A course may be repeated only one time. A student receiving a D, F, or U twice in a course or in two courses will be dismissed from the program.

2) A student must obtain a grade point average of 3.00 or better each semester, and a grade of S in all courses graded S/U courses. If a student earns a semester grade point average between 2.00 to 2.99, he or she is placed on academic probation. To be meet the requirements of an academic probation term, the student must earn a grade point average of 3.00 or better in all subsequent semesters. If a clinical internship course is scheduled during the next semester, the student must earn an S in the clinical internship course and a semester grade point average of 3.00 or better in the semester following the clinical internship to meet academic progression standards. If a
student is on academic probation the last semester of the program, the student must earn an S in the clinical internship course and a grade of S and 3.00 GPA for didactic course/s to graduate. A student will be dismissed from the program if 1) s/he fails to meet academic standards any time following a probation term, or 2) if s/he earns a semester GPA of 1.99 or less. While on probation, students may be required to complete activities designed to facilitate success.

An interdisciplinary health science committee consisting of health sciences administration and program directors and the Registrar, will conduct evaluation of academic progression at the end of each semester to determine if each student meets program progression standards.

- Required Courses
  - ATH301: Assessment and Evaluation I (4 hours)
  - AND -ATH301L: Assessment and Evaluation I Laboratory
  - ATH302: Assessment and Evaluation II (4 hours)
  - AND -ATH302L: Assessment and Evaluation II Laboratory
  - PHA509: Clinical Diagnostics I (2 hours)
  - PHA520: Surgery (3 hours)
  - AND -PHA520L: Surgery Laboratory
  - PHA512: Healthcare Systems, Health Policy and Administration (1 hours)
  - PHA628: Elective Supervised Clinical Practice (4 hours)
  - OTC501: Clinical Assessment and Treatment of Musculoskeletal Injuries (3 hours)
  - OTC502: Orthopedic Casting and Device Fitting (3 hours)
  - OTC590: Orthopedic Technology Clinical II (3 hours)
Advanced Studies in Personalized Learning Certificate

The Advanced Studies in Personalized Learning Certificate prepares exemplary learning specialists who embrace personalized learning as transformative practice, resulting in increased student agency and deeper learning. The Advanced Studies in Personalized Learning is the result of a collaborative partnership between the Department of Education at Carroll University and The Institute for Personalized Learning, a division of CESA #1. The two organizations collaborated around opportunities to add depth to the study and practice of personalized learning.

The Advanced Studies in Personalized Learning Certificate is a 15-credit program composed of 5 three-credit graduate education courses.

- Core Courses:
  - EDU692: Learners and Learning in a Personalized Environment (3 hours)
  - EDU693: Educators as Agents of Change (3 hours)
  - EDU694: Facilitating in a Personalized Learning Environment (3 hours)
  - EDU695: Evaluating Personalized Learning (3 hours)
  - EDU696: Collaborating in a Personalized Environment (3 hours)

Participants enroll in 6 credits during the fall (EDU 692 and EDU 693), 6 credits during the spring (EDU 694 and EDU 695) and 3 credits in the summer (EDU 696). Participants will complete the program within their cohort. In the Advanced Studies in Personalized Learning Certificate Program each Learning Community is co-facilitated by two instructors who follow the cohort through the entirety of the program. The Learning Community is a program in which participants meet together one weekend a month over a period of three semesters. While learning communities come together on a regular, scheduled basis, each learning community and the nested groups within this structure often create supplementary group time beyond the mandate of the program. Each course includes hybrid elements to supplement face-to-face and collaborative time.

Advanced Studies in Personalized Learning Certificate Program Goals

Through a process of exploration, reflection, action research, and communities of practice, participants will:

1. Develop a comprehensive knowledge of the underlying research to analyze models, practices and initiatives that align with the key attributes of personalized learning.
2. Serve as a change agent.
3. Enable all learners to reach their full potential.
4. Nurture conditions that support student agency.
5. Advocate for learners and learning.
6. Ensure all learners experience equity through opportunity, access, and a sense of belonging.
7. Inspire learning through a constructivist perspective.
8. Facilitate learning in multiple modalities.
9. Collaborate with professional integrity.
10. Use full range of digital learning tools to support engagement and achievement.
11. Use data to support learning and improvement.

The following benchmarks serve as programmatic learning outcomes. These align with the learning outcomes specific to each course.

By the end of semester one (completion of EDU 692 and EDU 693) candidates will:

1. Articulate key characteristics of personalized learning.
2. Understand broad research base for personalized learning.
3. Discern the roles teacher/student compared to educator/learner.
4. Analyze state initiatives such as Response to Intervention (RTI), Positive Behavioral Interventions and Supports (PBIS) and Universal Design for Learning (UDL) in relation to personalized learning.
5. Identify how personalized learning looks in practice.
6. Identify connections with Culturally Relevant Practice and personalized learning.

By the end of semester two (completion of EDU 694 and EDU 695) candidates will:

1. Understand the distinction between equity and equality.
2. Facilitate a community of learners by providing opportunity, access, and a sense of belonging.
3. Foster the potential in all learners by supporting the development of ownership and agency.
4. Demonstrate how personalized learning looks in their practice through varied modalities, instructional tools, technology, etc.
5. Use assessment to inform instruction, provide feedback, and facilitate metacognition of learning and learners.

By the end of semester three (completion of EDU 696) candidates will:

1. Align a broad base of assessment practices with the principles of personalized learning.
2. Become a model educator-teacher-classroom.
3. Expand the circle of influence through family, school, and community outreach.
Certificate in Software Engineering

Students must have a Bachelor’s degree to be enrolled in the Graduate Certificate Program. Students must successfully complete any five three-credit classes offered in the program to complete the certificate. Students must earn C or better in each of the courses to be counted towards the certificate. Click here for information on the Master of Software Engineering.

- Choose from this list of courses:
  - CSC506: Object Oriented Programming and Data Structures (3 hours)
  - CSC550: Advanced Web Applications (3 hours)
  - CSC560: Advanced Web Applications II (3 hours)
  - CSC591: Enterprise Data Modeling (3 hours)
  - CSC600: Object Oriented Analysis and Design (3 hours)
  - CSC602: Software Project Management (3 hours)
  - CSC640: Software Engineering (3 hours)
  - CSC643: Advanced Topics in Software Engineering (3 hours)
Elementary Mathematics Certificate

Elementary Mathematics Certificate candidates at Carroll University develop an in-depth understanding of mathematics content, processes, and pedagogy appropriate for grades P-5. They engage in professional learning communities and develop leadership skills to support and facilitate effective mathematics instruction and professional growth in their schools and districts.

- EDU618: Mathematical Reasoning and Leadership for Elementary Specialists: K-5 Learning Trajectories (3 hours)
- EDU619: Numbers and Operations: K-5 Mathematical Tasks (3 hours)
- EDU627: Algebraic Reasoning: K-5 Discourse and Questioning (3 hours)
- EDU628: Measurement and Data: K-5 Equity and Technology (3 hours)
- EDU629: Geometry and Spatial Reasoning: K-5 Assessment (3 hours)
Kindergarten - 12 Writing Certificate

Through the K-12 Writing Certificate, educators develop a deep and broad knowledge of writing instruction, expertise in using and helping others use effective instructional practice, and the ability to support efforts that help all K-12 students improve in writing. The K-12 Writing Certificate answers a joint call by the National Council of Teachers of English, the National Writing Project, and most recently the Common Core State Standards (CCSS) to develop writing specialists to enhance the teaching, learning, and assessment of writing to improve student achievement. Each course examines research based practices in writing instruction along with a study of teacher as writer. There is a continuous process of studying students and their work in order to strengthen teaching and learning.

- EDU620: The Writing Process - Theory and Practice: Using Technology to Enhance the Writing Process (2 hours)
- EDU621: Writing Across the Curriculum: Leadership Institute (3 hours)
- EDU622: Writing Project Practicum (3 hours)
- EDU623: The Zen of Collegial Studies (1 hour)
- EDU625: Teaching the Writing Process (3 hours)
- EDU626: Teacher as Writer-Facilitating Better Student Writing (3 hours)
- OR EDU671: Understanding Self, Race, Class and Gender to Leverage Student Achievement (3 hours)

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Doctorate Level Program

Doctor of Physical Therapy
The entry-level Doctor of Physical Therapy program is 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: 703-760-3245; email: accreditation@apta.org; website: http://www.capteonline.org.

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.

Graduates of the entry-level Physical Therapy program are reflective, adaptable, accountable and competent to render independent judgments within a framework of collaborative health care practice. Graduates are prepared to practice in a caring, compassionate manner with moral sensitivity, social responsibility and awareness of individual differences. Pre-professional education is grounded in the liberal arts and the natural, behavioral, and social and health sciences. Professional preparation is in the basic sciences, behavioral sciences, applied sciences, health sciences and the science of physical therapy. Graduates are prepared to examine, evaluate, diagnose, make prognoses and provide interventions designed to rehabilitate patients/clients to optimal levels of function, prevent the onset of symptoms, and progression of impairments, functional limitations and disabilities that may result from diseases, disorders or injuries. Understanding professional practice, patient/client management and practice management expectations allow graduates to impact health care delivery systems in their communities. Graduates have a life-long commitment to self-directed learning and critical inquiry, recognizing that completion of their professional education is the first phase on a continuum of phases to mastery and competency in physical therapy.

Graduates contribute to the profession and society by seeking and disseminating knowledge gained and providing pro bono services.

The program mission is reflected in its curricular philosophy. The curriculum is developed around four tracks, incorporating both traditional and problem-based learning concepts. Each track is composed of courses that find their foundations in the same basic or professional science. The professional track presents material in a manner that develops content from general to applied concepts in professional practice, patient/client management, practice management, clinical decision making and evidenced based practice. The neurological, musculoskeletal and general medicine tracks present basic science, applied science in the absence of pathology, and applied science in the presence of pathology within the context of patient care. Across and within the four tracks are common themes that include ethical inquiry and practice, continuous integration of theory and practice across the curriculum, self-management of the learning process by students, and self-reinforcement whereby students learn because they value their growing competence. The curriculum includes both didactic and practical experiences. There is collaborative teaching within and across tracks and courses with planned redundancy of subject matter. Constant reinforcement of content with clinical experiences occurs through observations of, and exposure to, patients in academic courses, exposure to clients in the program's Teaching Laboratory Practice, and integrated clinical education.

To meet the program’s mission, a variety of individuals including, but not limited to, academic and clinical physical therapists; other professionals; basic, behavioral and social scientists; patients and care givers; and the community are involved in the program. These individuals facilitate learning and share their content expertise in their area of specialization. The academic, community and professional collaborations allow the program to link education to the reality of practice, anticipate future developments and keep a global perspective.

• **Curriculum**

The entry-level Doctor of Physical Therapy program lasts eight semesters, and is subdivided into two phases, DPT Year I and DPT Year II & III.

During DPT Year I, course work in physical therapy begins at the 400 level. The 400-level courses present the basic, behavioral, professional and applied science foundations for the 500-and 600-level courses in DPT 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/DPT Year I.
At the conclusion of DPT Year I, students move into the graduate phase of the program, DPT Year II, where 500-level (summers, fall and spring terms of year five) and 600-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.

### Admission

**ENTRY-LEVEL DOCTOR OF PHYSICAL THERAPY PROGRAM ADMISSION**

**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. Students can enter the physical therapy program in one of three ways:

1. **Direct Admission** - Carroll students 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 Carroll University. If a student with direct admission status meets all standards after his or her junior year at the University, he or she transitions into the professional phase of the DPT Program. This option allows students to earn an undergraduate bachelor’s degree as well as the Doctor of Physical Therapy degree in a six-year time frame.

2. **Non-Direct Admission** - Carroll students not selected for direct admission will follow the non-direct admission process. Examples include high school students not selected for direct admission, undergraduate transfer students, Carroll alumni, and direct admission students who did not meet progression standards and apply outside of their 3+3 cohort. 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 as early as their junior year at Carroll.

3. **Non-traditional Admission** - An individual who received their bachelor’s degree outside of Carroll University may apply for admission to the professional phase of the DPT program. Non-traditional applicants are reviewed in a competitive pool consisting of non-traditional and non-direct admission applicants. Non-traditional applicants are required to apply to the DPT program via the Physical Therapist Centralized Application Service (PTCAS). Please reference [www.ptcas.org](http://www.ptcas.org) for more information.

Applications and credentials for admission to the physical therapy program must be submitted for processing to the Carroll University Office of Admission by direct and non-direct admission applicants only. Non-traditional applicants must submit admission material to PTCAS directly. 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.

All applicants must comply and meet the following requirements for admission into the entry-level Doctor of Physical Therapy Program, which include:

1. Evidence a baccalaureate degree from an accredited institution or an equivalent institution will be awarded prior to the start of the professional phase for all non-traditional applicants and by the completion of the senior year for all direct and non-direct admission applicants.
2. Cumulative GPA of 3.0 or higher (on a 4.0 scale).
3. Pre-professional course work GPA of a 3.0 or higher (on a 4.0 scale) with minimum course grades of “C” or better and course work completion within the last seven years. A maximum of one course within the pre-professional course work may be repeated (see prerequisite section).
4. Successful completion of all prerequisite course work prior to beginning the professional phase of the program (see prerequisite section). Direct admission applicants are required to complete all prerequisite, major, and general education coursework by the end of spring semester junior year. Direct and non-direct admit applicants may complete CCS400 GPC in Phase I of the professional phase.
5. Current CPR and First Aid certification. CPR certification must be either American Heart Association Basic Life Support for Healthcare Providers or American Red Cross CPR/AED for the Professional Rescuer. First Aid certification must be through an organization recognized as a valid issuer of certification such as the American Red Cross. If accepted to the Physical Therapy Program, copies of First Aid/CPR certification are due by August 1st prior to the start of DPT Year I of the graduate program and certifications must be valid for at least one year at the time of entry into DPT Year I.
7. 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.
8. Submission of required application materials prior to the applicant’s designated deadline date, which include:
   1. Direct admission application for progression deadline: December 15, 2015
   2. Non-direct application deadline: January 15, 2017
   3. Non-traditional application deadlines: January 15, 2017 - please reference PTCAS for additional details

**Direct Admission and Non-Direct Admission (Current Carroll students and alumni only) selection decisions will be based on the submission and evaluation of:**

1. **Graduate Studies On-line Application** for the entry-level Doctor of Physical Therapy Professional Phase.
2. **Supplemental Application Admission Materials**, which include:
   1. Clinical Experience Documentation Form(s): Participation in a minimum of three clinical observation experiences from three different types of physical therapy practice settings which include inpatient acute care, inpatient rehab facility, outpatient orthopedic, outpatient neurological, skilled nursing facility, pediatric/school setting, home health, industrial/work rehab. Clinical Experience Documentation Form(s) must be submitted to the program. A minimum of 25 hours in three different practice settings for a total minimum of 75 hours is required.
   2. Three Letters of Reference - Forms: One from a physical therapist, one from a university professor, and one from a non-family member that attests to the student’s character. (If you waive your right of access, letters must be submitted with a signature across the seal in individual envelopes).
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3. Essay Form - must be typed.
4. Employment, Service, and Academic Honor(s) Form: Participation and documentation of university or community service activities is required.
5. Health Science Statement(s) Form.
7. Course Work in Progress Form.
8. Application for Graduation Form:
   - Only current Carroll students must submit an application for graduation to the Registrar Office prior to the application deadline to show evidence of earning a bachelor's degree by the end of senior year.
9. Official GRE scores: Carroll's School Code is 1101 and Department Code is 0619 - exam date must be within the last 5 years
10. Official transcript(s): Submission of transcripts from all post-secondary institutions attended. (Carroll applicants do not need to submit transcripts.)
11. Cumulative GPA of 3.0 or higher (on a 4.0 scale)
12. Pre-Professional GPA of 3.0 or higher (on a 4.0 scale) - reference the prerequisite section for details

Non-Traditional Admission selection decisions will be based on the evaluation of the minimum following criteria:

2. Submission of Supplemental Application Fee of $50. Payment may be made online by clicking HERE (please include your PTCAS ID number).
3. Submission of transcripts from all post-secondary institutions directly to PTCAS.
4. Official Graduate Record Examination (GRE). GRE's must be sent directly to PTCAS. Carroll's PTCAS GRE code is 8829.
5. Observation Hours - Participation in a minimum of three clinical observation experiences from three different types of physical therapy practice settings is required. Settings include inpatient acute care, inpatient rehab facility, outpatient orthopedic, outpatient neurological, skilled nursing facility, pediatric/school setting, home health, industrial/work rehab. Observation must be under licensed physical therapists. A minimum of 25 hours in each setting for a total minimum of 75 hours is required. Please reference PTCAS for documentation requirements.
6. Three Letters of Reference – LOR's must be submitted to PTCAS. Please reference PTCAS for documentation requirements.
   - 1. One letter from a licensed physical therapist
   - 2. One letter from a university/college professor
   - 3. One letter from a personal contact (non-familial) that may attest to the student's character
7. Cumulative GPA of 3.0 or higher (on a 4.0 scale)
8. Pre-Professional GPA of 3.0 or higher (on a 4.0 scale) - reference the prerequisite section for details

Required Prerequisites:

Successful completion of the following prerequisite course work and confirmation of successful completion of all prerequisites in progress at the time of application is required prior to the start of the professional phase of the Doctor of Physical Therapy Program. Because of the rapid evolution of the basic sciences and the rigor of the program, it is required that applicants complete the pre-professional course work within seven years from the time of application to the professional phase of the program with minimum course grades of "C" or better. A maximum of one course within the pre-professional course work may be repeated. Pre-professional course work is identified with an asterisk below.

Applicants to the Carroll University Physical Therapy Program may not use advanced placement credit, test credit, or online course completion for the biology, chemistry and physics pre-professional prerequisite course work. In addition, the biology, chemistry and physics pre-professional prerequisite course work must be completed as a one-year sequence. For example, anatomy and physiology I with lab and anatomy and physiology II with lab is a full sequence and is equivalent to Carroll's ANP130 & ANP140. Please see below for the specific courses that are required under each discipline.

Prerequisite Course Work Includes:

1. **BIOLOGY** - 4 semesters, which include:
   - 1. 2 semesters of general biology I and II with labs OR 2 semesters of anatomy & physiology I and II with labs (Equivalent to Carroll's: BIO 120 & BIO125 or ANP 130 & ANP 140)
   - 2. 2 semesters of advanced anatomy and advanced physiology with labs (Equivalent to Carroll's: ANP 402 and ANP 403). Please note: Nontraditional or non-direct admit applicants who are accepted to the DPT Program and have not previously completed these courses, then ANP 402 and ANP 403 must be successfully completed at Carroll the summer prior to Phase I of the graduate program
2. **CHEMISTRY** (Inorganic) - 2 semesters, which include:
   - 1. 2 semesters of general chemistry I and II with labs OR 2 semesters of college chemistry I and II with labs (Equivalent to Carroll's CHE 101 & CHE 102 or CHE 109 & CHE 110)
3. **PHYSICS** - 2 semesters, which include:
   - 1. 2 semesters of general physics I and II with labs (Equivalent to Carroll's: PHY 101 & PHY 102 or PHY 203 & PHY 204
4. **PSYCHOLOGY** - Up to 2 semesters, which include:
   - 1. Introductory psychology or higher, with at least one course completed at a 200 level or higher (Equivalent to Carroll's: PSY 101 and above
5. **MATH** - 1 semester, which includes:
   - 1. 1 semester statistics (Equivalent to Carroll's: CMP112 and CMP114; may be 1 course such as CMP112; MAT111 or PSY265
6. **HUMANITIES** - 3 semesters: For example, English, History, Philosophy, Religious Studies, Women's Studies, Fine Arts, Languages (for Carroll students the Pioneer Core general education courses satisfy this requirement)
7. **SOCIAL SCIENCES** - 3 semesters: For example, Psychology, Sociology, Anthropology, Politics, Cultural Geography, Economics, Communications (for Carroll students the Pioneer Core general education courses satisfy this requirement)
8. **ENGLISH** - 1 semester (Either English Composition or English Literature). ENG170 satisfies this requirement for Carroll students.

*Indicates course work included in pre-professional GPA calculation. Minimum of a 3.0 pre-professional GPA is required with letter grades of "C" or better. A maximum of one course within the pre-professional course work may be repeated.
Carroll University course numbers are provided for reference and course descriptions are provided in the University undergraduate online catalog.

Admission and progression standards are subject to change based on regulatory, licensing and/or certification needs. Carroll University does not discriminate in any manner contrary to law or justice on the basis of race, color, gender, age, sexual orientation, religion, disability, veteran's status or national origin in its educational programs or activities, including employment and admissions.

- **Technical Standards for Carroll University Physical Therapy Students**

In preparation for professional roles physical therapy students are expected to demonstrate the ability to meet the demands encountered in a physical therapy career. Certain functional abilities are essential for the delivery of safe and effective care. An applicant to the DPT Program must meet and maintain the following technical standards for progression throughout the program. Students unable to meet these technical standards will not be able to complete the program. Students shall notify the program in a timely manner of any change in their ability to meet technical standards.

The technical standards include but are not limited to the following:

**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, hear, 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.

**Psychomotor Ability**

The student must be able to perform gross and fine motor movements with sufficient coordination needed to provide complete safe effective care for patients. The student is expected to have psychomotor skills necessary to safely perform examination procedures and treatment interventions, including CPR if necessary. Examples of examination procedures include, but are not limited to, cognitive assessment, range of motion, manual muscle testing, sensation, balance, functional abilities, pain, cardiopulmonary status, percussion, palpation, and anthropometrics. Treatment interventions include, but are not limited to, patient education, manual therapy, functional training (transfers, bed mobility, activity of daily living training, etc.), application of therapeutic physical agents such as electrotherapy, radiation, heat, and cold, and wound care.

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. The DPT curriculum may require students 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/Cognitive Ability**

The student must have the ability to develop critical thinking and problem-solving skills essential to professional physical therapy practice. Problem solving skills include the ability to measure, calculate reason, analyze, synthesize, and judge 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 comprehend, retain, retrieve and incorporate prior knowledge with new information from multiple sources including, but not limited to self, peers, instructors and related literature to formulate sound judgment for competent patient/client management, practice management, and functions required for clinical scholarship.

**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 DPT 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 student must have the ability to establish rapport and maintain respectful interpersonal relationships with individuals, families and groups from a variety of social, emotional, cultural and intellectual backgrounds. 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 with others. Students must continuously self-assess to improve as a professional.
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 DPT program, and must effectively manage these stressors throughout entire workdays. These stressors may be (but are not limited to) personal, patient care/family, faculty/peer and/or program related.

Evaluation

An applicant/candidate with a handicap 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. Carroll University may require that the applicant/student undergo a physical examination and/or an occupational skills evaluation.

All DPT students must be able to perform the essential functions of a student physical therapist. Reasonable accommodations will be afforded to students with disabilities as required under the Americans with Disabilities Act of 1990. A student who can no longer perform the essential functions of a student physical therapist must report this to their program advisor. If reasonable accommodations cannot be made, the student will not be able to remain in the DPT program.

The Physical Therapy program may require that an applicant/student undergo a physical examination. An applicant/student who is handicapped 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 physical therapy program.

Students in the Physical Therapy program are required to complete the Carroll University Physical Therapy Intern Medical Information Form upon entrance into the program. This form documents information about the student’s health insurance carrier, physician, medical conditions, vaccination history and completion of health risk training. A copy of the original documents remain on file in the program. Students carry a copy to each full-time clinical internship. It is the student’s responsibility to update the information on this form on a yearly basis, or more frequently if necessary. Any medical treatment needed by a physical therapy student during academic preparation or clinical education experience is the responsibility of the student.

- Caregiver Background and Criminal History Check

On October 1, 1998, the State of Wisconsin, Department of Health and Family Services mandated that all persons who seek to be employed and/or licensed in the caregiver industry must pass a background and criminal history check requirements in Section 50.065 of the Wisconsin statute. Entry-level Physical Therapy students are required, by the first day of class of the program, to complete a background and criminal history check.

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.

- Insurance

Health: Pre-professional and professional students are required to have medical insurance. Those who are covered by a family or personal policy must provide the insurance company’s name and the policy number on a waiver form that is sent to the student by the University’s Business Office. For students without their own coverage, a group insurance policy is available through the University. Students are also required to have a personal health history form completed and on file at the University’s health center.

Clinical facilities may require proof of immunizations or additional procedures (lab studies, radiographs, etc.). The student is responsible for the cost of any related procedures.

Professional Liability: Professional students are required to purchase on a yearly basis professional liability insurance through a university endorsed company.

- Academic Progression Physical Therapy Program

All entry-level Physical Therapy program requirements must be completed in 33 months unless permission is otherwise granted by the director of the Physical Therapy program. The academic progress of students in the Physical Therapy program is evaluated at the end of each semester. Progression standards are subject to change based on regulatory, licensing, and/or certification needs. Satisfactory progress is contingent upon satisfying the following academic requirements:

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. When repeating a physical therapy course, a student may be required to successfully complete ancillary learning experiences or clinical competencies/practicums that validate theoretical knowledge. 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 suspension and repeats the course during the next appropriate semester. A course may be repeated only one time. A student receiving a F or U in the same physical therapy course twice or in two physical therapy courses is dismissed from the program.

2) A student must obtain a grade point average of 3.00 or better each semester, and a grade of S in all courses graded S/U courses. If a student earns a semester grade point average between 2.00 to 2.99, or received a U in a course, he or she is placed on academic probation. To be meet the requirements of an academic probation term, the student must earn a grade point average of 3.00 or better in all subsequent semesters. If a clinical internship course is scheduled during the next semester, the student must earn an S in the clinical internship course and a semester grade point average of 3.00 or better in the semester following the clinical internship to meet academic progression standards. If a student is on academic probation the last semester of the program, the student must earn an S in the clinical internship course to graduate. A student will be dismissed from the program...
Entry-Level Doctor of Physical Therapy Program Curriculum: 122 Credits

- **DPT Year I (Senior year for Direct Admit and Transfer Students) 30 credits**
  - Fall Semester - 15 credits
    - PTH400: Foundations of Professional Practice (3 hours)
    - PTH401: Statistical and Research Methods (3 hours)
    - PTH404: Biomechanics (3 hours)
    - PTH404L: Biomechanics Laboratory
    - PTH406: Exercise Physiology (3 hours)
    - PTH406L: Exercise Physiology Laboratory
    - PTH408: Introduction to Patient Management (3 hours)
    - PTH408L: Introduction to Patient Management Laboratory
  - Spring Semester - 15 credits
    - PTH405: Neuroscience (3 hours)
    - PTH411: Foundations of Clinical Research (2 hours)
    - PTH412: Tests & Measures (3 hours)
    - PTH412L: Tests & Measures Laboratory
    - PTH414: Advanced Kinesiology (3 hours)
    - PTH414L: Advanced Kinesiology Laboratory
    - PTH416: Therapeutic Exercise (4 hours)
    - PTH416L: Therapeutic Exercise Lab
- **DPT Year II**
  - Year 1 - 47 credits
    - Summer Semester - 15 credits
      - PTH500: Physical Agents (4 hours)
      - PTH500L: Physical Agents Lab
      - PTH501: Advanced Patient Management (3 hours)
      - PTH501L: Advanced Patient Management
      - PTH512: Evidence into Practice (2 hours)
      - PTH520: Professional Practice I (2 hours)
      - PTH521: Teaching Laboratory Practicum I (2 hours)
      - PTH525: Systems Development (2 hours)
    - Fall Semester - 14 credits
      - PTH507: Orthopedics I (2 hours)
      - PTH507L: Orthopedics I - Laboratory
      - PTH509: Introduction to Pharmacology (2 hours)
      - PTH515: Clinical Internship I (7 hours)

Fees and Financial Aid

During the Professional DPT Year I of the Physical Therapy Program, tuition and other fees apply to all students. A professional program fee is assessed per semester for course related supplies and equipment, liability insurance, and assistance with membership dues in the American Physical Therapy Association (APTA). Carroll University students in their senior year are eligible for undergraduate financial aid. Students who have previously earned a bachelor's degree are eligible for undergraduate Federal Subsidized Stafford/Unsubsidized Stafford Loans.

Graduate (DPT Year II and III) tuition for 2017-18 is $781 per credit, and students enrolled in DPT Year II and III are not eligible for Carroll University financial aid grants. Students in DPT Year II and III are eligible for graduate Unsubsidized Stafford Loans.

Course fees and tuition are found on the graduate fee and tuition page.

Information regarding any clinical facility scholarships and how to make applications for them is available.

Licensure

Students are responsible for determining the requirements of and securing the application from the state in which they expect to be licensed.

Policy on Reaplication to the Program

The policy on reapplication defines the process by which students may seek readmission to the 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 must reapply to the program 35 weeks of full-time supervised clinical internship courses. Clinical education internships occur off campus, and thus a student must secure appropriate transportation.

Learning experiences involving clients begin in the classroom through course experiences both at the University and at clinical practice settings where students observe and have planned practical experiences. The classroom experiences are expanded into a series of three integrated teaching laboratory practice courses where students participate in campus-community service learning wellness and prevention initiatives with healthy individuals and individuals with pathology and disability across the life span. In addition, students participate in four full-time (40 hours/week) internships with patients/clients in a variety of environments that include rural, inpatient, outpatient, and specialty facilities and that are representative of contemporary physical therapy practice and patient/client differences.

Dismissed Graduate Students' Participation in Commencement

If 1) s/he fails to meet academic standards any time following a probation term, or 2) if s/he earns a semester GPA of 1.99 or less. While on probation, students may be required to complete activities designed to facilitate success.
**Physical Therapy Graduate Program**

- **Spring Semester - 18 credits**
  - PTH506: Motor Control (4 hours)
  - AND - PTH506L: Motor Control Lab
  - PTH508: General Medicine I (4 hours)
  - AND - PTH508L: General Medicine I - Lab
  - PTH517: Orthopedics II (4 hours)
  - AND - PTH517L: Orthopedics II Laboratory
  - PTH522: Evidence Based Decision Making (2 hours)
  - PTH530: Professional Practice II (2 hours)
  - PTH531: Physical Therapy Teaching Laboratory Practicum II (2 hours)

- **Year 2 - 45 credits**
  - Summer Semester - 12 credits
    - PTH611: Clinical Internship II (12 hours)
  - Fall Semester - 17 credits
    - PTH606: Neurological Disorders (4 hours)
    - AND - PTH606L: Neurological Disorders Laboratory
    - PTH607: Orthopedics III (3 hours)
    - AND - PTH607L: Orthopedics III Laboratory
    - PTH608: General Medicine II (4 hours)
    - AND - PTH608L: General Medicine II - Laboratory
    - PTH620: Professional Practice III (2 hours)
    - PTH621: Physical Therapy Teaching Lab Practicum III (2 hours)
    - PTH635: Pediatric Care (2 hours)
  - Spring Semester - 16 credits
    - PTH614: Clinical Internship III (16 hours)

<table>
<thead>
<tr>
<th>Summary of Credits</th>
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<tbody>
<tr>
<td>Doctor of Physical Therapy Degree</td>
<td>122 credits</td>
</tr>
<tr>
<td>DPT Year I</td>
<td>30 credits</td>
</tr>
<tr>
<td>DPT Year II &amp; III</td>
<td>92 credits</td>
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</table>

**Graduate Courses**

The following courses are offered through our Graduate Program.

- PTH400: Foundations of Professional Practice (3 hours)
- PTH401: Statistical and Research Methods (3 hours)
- PTH404: Biomechanics (3 hours)
- PTH404L: Biomechanics Laboratory
- PTH405: Neuroscience (3 hours)
- PTH406: Exercise Physiology (3 hours)
- PTH406L: Exercise Physiology Laboratory
- PTH408: Introduction to Patient Management (3 hours)
- PTH408L: Introduction to Patient Management Laboratory
- PTH411: Foundations of Clinical Research (2 hours)
- PTH411L: Foundations of Clinical Research
- PTH412: Tests & Measures (3 hours)
- PTH412L: Tests & Measures Laboratory
- PTH414: Advanced Kinesiology (3 hours)
- PTH414L: Advanced Kinesiology Laboratory
- PTH416: Therapeutic Exercise (4 hours)
- PTH416L: Therapeutic Exercise Lab
- PTH500: Physical Agents (4 hours)
- PTH500L: Physical Agents Lab
- PTH501: Advanced Patient Management (3 hours)
- PTH501L: Advanced Patient Management
- PTH506: Motor Control (4 hours)
- PTH506L: Motor Control Lab
- PTH507: Orthopedics I (2 hours)
- PTH507L: Orthopedics I - Laboratory
- PTH508: General Medicine I (4 hours)
- PTH508L: General Medicine I - Lab
- PTH509: Introduction to Pharmacology (2 hours)
- PTH512: Evidence into Practice (2 hours)
- PTH515: Clinical Internship I (7 hours)
- PTH516: Human Motor Learning (2 hours)
- PTH517: Orthopedics II (4 hours)
- PTH517L: Orthopedics II Laboratory
- PTH520: Professional Practice I (2 hours)
- PTH521: Teaching Laboratory Practicum I (2 hours)
- PTH522: Evidence Based Decision Making (2 hours)
- PTH525: Systems Development (2 hours)
- PTH530: Professional Practice II (2 hours)
- PTH531: Physical Therapy Teaching Laboratory Practicum II (2 hours)
- PTH535: Applied Human Behavior (1 hours)
- PTH606: Neurological Disorders (4 hours)
- PTH606L: Neurological Disorders Laboratory
- PTH607: Orthopedics III (3 hours)
- PTH607L: Orthopedics III Laboratory
- PTH608: General Medicine II (4 hours)
- PTH608L: General Medicine II - Laboratory
- PTH611: Clinical Internship II (12 hours)
- PTH614: Clinical Internship III (16 hours)
- PTH620: Professional Practice III (2 hours)
- PTH621: Physical Therapy Teaching Lab Practicum III (2 hours)
- PTH635: Pediatric Care (2 hours)
### Master Level Programs

- Master of Business Administration
- Graduate Program in Education
- Master of Science in Exercise Physiology
- Master of Occupational Therapy Program
- Master of Science Physician Assistant Studies Program
- Master of Software Engineering and Graduate Certificate in Software Engineering
Master of Business Administration (33 credits)

PROGRAM FACULTY

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dennis Debrecht</td>
<td>Associate Professor</td>
<td>Economics</td>
</tr>
<tr>
<td>Sarah Esveldt</td>
<td>Senior Lecturer</td>
<td>Health Care Administration</td>
</tr>
<tr>
<td>Gregory Kuhlemeyer</td>
<td>Professor</td>
<td>Finance</td>
</tr>
<tr>
<td>Jeffery Kunz</td>
<td>Assistant Professor</td>
<td>Accounting</td>
</tr>
<tr>
<td>Michael Levas</td>
<td>Associate Professor</td>
<td>Marketing</td>
</tr>
<tr>
<td>Canchu Lin</td>
<td>Associate Professor</td>
<td>Management &amp; Leadership</td>
</tr>
<tr>
<td>Gary Olsen</td>
<td>Professor</td>
<td>Accounting</td>
</tr>
<tr>
<td>Carol Tallarico</td>
<td>Associate Professor</td>
<td>Economics</td>
</tr>
<tr>
<td>Mary Ann Wisniewski</td>
<td>Professor</td>
<td>Management &amp; Leadership</td>
</tr>
<tr>
<td>Shaoqiong (Annie) Zhao</td>
<td>Assistant Professor</td>
<td>Marketing</td>
</tr>
</tbody>
</table>

PROGRAM OVERVIEW

The Master of Business Administration (MBA) degree includes coursework in accounting, business law, business policy and strategy, economics, finance, leadership, marketing, operations and supply chain management, and quantitative analysis. The general focus provides students with a broader and deeper understanding of the business world.

- **Learning Outcomes**
  Upon completion of the MBA program, students will be able to:
  1. better understand business concepts and their applications;
  2. demonstrate mastery of business communication skills;
  3. effectively apply appropriate tools and techniques to solve complex business problems;
  4. formulate and evaluate effective business policies and strategies within a global environment;
  5. collaborate effectively in a competitive environment; and
  6. examine and analyze issues related to diversity and ethics in a multicultural environment and their impact on the organization.

- **Foundation Coursework**
  - An introductory university level statistics course
  - An introductory university level accounting course (financial or managerial)
  - An introductory university level economics course (micro or macroeconomics).

Admission and progression standards are subject to change based on regulatory, licensing and/or certification needs.

- **General Degree Requirements**
  The MBA is an 11-course, 33-credit program.
  Students must maintain a minimum GPA of 3.0.
  - BUS580: Information Tech Management (3 hours)
  - BUS600: Managerial Economics (3 hours)
  - BUS605: Marketing Management (3 hours)
  - BUS610: Quantitative Decision Making (3 hours)
  - BUS615: Current Topics in Business Law (3 hours)
  - BUS620: Advanced Managerial Accounting (3 hours)
  - BUS625: Leading and Managing in a Changing Environment (3 hours)
  - BUS635: Operations and Supply Chain Management (3 hours)
  - BUS640: Advanced Financial Decision Making (3 hours)
  - BUS642: International Business (3 hours)
  - BUS645: Business Policy and Strategy (3 hours)

- **Admission**
  The Master of Business Administration Program admits qualified students regardless of race, color, creed, gender, age, sexual orientation, national or ethnic origin, or disability in the administration of its educational policies, admission policies, or scholarship and loan programs.

Applications and credentials for admission to the Master of Business Administration Program must be submitted for processing to the Carroll University Office of Admission. Applications are reviewed on a rolling basis and 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.

Requirements for admission into the Master of Business Administration Program include:

1. Earned Baccalaureate Degree from an accredited institution.
2. Successful completion of all foundational course work (see above for specific foundational course work).
Applicants must comply with all admission requirements listed above. The Graduate Admission Committee will review the applicant’s file and determine an admission decision upon completion and submission of the following required credentials:

1. Graduate Studies On-line Application.
2. All official post-secondary transcripts, including both graduate and undergraduate course work. Official transcripts must be mailed directly to Carroll University Admission Office.
3. Current professional resume.
4. If the cumulative GPA is below a 2.75 (on a 4.0 scale), additional admission criteria apply and additional admission materials may be required.

International candidates may be required to submit additional admission credentials. Please contact the Office of Admission for details.

• Academic Planning

Initially, interested students meet with an advisor to discuss how their background and educational goals relate to the MBA. Part-time students enroll in 5 or fewer credits per semester while full-time students enroll in 6 or more credits per semester.

Requirements for the MBA degree must be completed within seven years of starting the program. Students who interrupt their studies for one full academic year must reapply and must follow any new requirements upon re-entering.

• Financial Assistance

Financial aid, in the form of student loans, is available to MBA students who are enrolled at least half-time (6 credits per semester).

For further information, call the Office of Financial Aid at 262.524.7296.

• Transfer Credits

With approval of the MBA director, up to nine semester hours of graduate, business-related coursework, taken within the past seven years, may be transferred from other accredited colleges or universities. Transfer courses are evaluated by the MBA Director on an individual basis.

• Withdrawal Procedures

Any graduate student who wishes to withdraw should first meet with the MBA Director who will conduct a brief interview with the student. Students must also meet with the Director of Student Success, whose office is located in the Financial Aid office on the first floor of Voorhees Hall.

Students who add or drop 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 the date of delivery of those brought in personally to the Registrar’s Office. Students registered for a class that is cancelled by the University due to lack of enrollment are given a full refund.

• Dismissed Graduate Students’ Participation in Commencement

• Support Services

The Admission Office provides a point of initial contact and a face for Carroll. Admission support services are handled using a team approach. The MBA Director is involved in the admission acceptance process and in helping students enroll in appropriate courses.

The International Office plays a role for students who seek to come to the United States to advance their academic careers with a graduate degree from Carroll.

The Registrar’s Office handles enrollment and transcript aspects of courses.

Financial aid is available to graduate students who are enrolled at least on a half-time basis, 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 a minimum of six credit hours per semester and full-time status is a minimum of nine credit hours per semester. Unless a scholarship or grant is received from an outside organization, graduate students are eligible to receive financial assistance only in the form of loans. Financial aid counseling is provided by the Carroll University Office of Financial Aid.

Information Technology Services (ITS) provides support for computing and information-related activities.

• Graduate Courses

The following courses are offered through our Graduate Program.

- BUS580: Information Tech Management (3 hours)
- BUS600: Managerial Economics (3 hours)
- BUS605: Marketing Management (3 hours)
- BUS610: Quantitative Decision Making (3 hours)
- BUS615: Current Topics in Business Law (3 hours)
- BUS620: Advanced Managerial Accounting (3 hours)
- BUS625: Leading and Managing in a Changing Environment (3 hours)
- BUS635: Operations and Supply Chain Management (3 hours)
- BUS640: Advanced Financial Decision Making (3 hours)
- BUS642: International Business (3 hours)
- BUS645: Business Policy and Strategy (3 hours)
Graduate Program in Education

The Carroll University Graduate Program in Education supports candidates seeking to develop expertise through professional development, the acquisition of a Master of Education Degree (M.Ed.), and/or a Master of Science Degree in Educational Leadership (M.S.). The M.Ed. program currently offers two emphases: Curriculum and Instruction (C & I) and Adult and Continuing Education (ACE). Within these emphases, candidates choose areas of concentration to develop their professional knowledge, skills, and dispositions. Educators may extend licensure or certification by completing areas of concentration. Extended licensure or certification programs may be completed independently or as part of a Master of Education degree. Courses are offered in a variety of delivery models to enhance learning opportunities and provide flexible scheduling.

Goals for the Graduate Program in Education

The following goals extend Carroll University’s mission of providing excellence in teaching and learning:

1. Develop students’ personal sense of competency as excellent educators in a variety of contexts;
2. Promote ideals of lifelong learning and professional development;
3. Develop reflective skills in educators that enable them to connect new knowledge from the coursework they select with the educational settings in which they work; and,
4. Encourage research and practice that empowers educators to be forces of transformation in their educational setting.

Learning Outcomes in the Graduate Program in Education

All students in the Graduate Program in Education are expected to demonstrate:

1. An increased understanding of classic and contemporary learning theories and instructional strategies appropriate to the discipline;
2. The ability to develop, assess, and evaluate programs and/or curriculum based on the needs of learners and implement appropriate instruction strategies in a variety of teaching/learning settings;
3. Higher order thinking skills to consider multiple perspectives, demonstrate collaborative teamwork and the ability to build partnerships with colleagues, schools, agencies, and organizations;
4. The ability to read critically, interpret and evaluate research as well as the skills for systematic inquiry through which they engage in research, collect and analyze data, and communicate the results;
5. An increased ability to reflect critically on theories and practice that result in the integration of knowledge into practice.

Admission

Applicants begin the admission process by completing a Carroll University Graduate Studies Application and submitting a professional resume. The application, resume, and official transcripts of all previous post-secondary coursework are submitted to the Carroll University Graduate Admission Office.

Applicants for the M.Ed. program must have an undergraduate degree from an accredited college or university with a minimum grade point average of 2.5 on a 4.0 scale. Those applying to the M.S. in Educational Leadership program must have a grade point average of 2.75 from their most recently completed program. Admission decisions are made when applications are complete.

A Carroll undergraduate student with senior status may enroll in a graduate course with the permission of the Director of the Graduate Program in Education.

Academic Planning

Candidates meet with a Graduate Education faculty mentor to discuss how their background and educational goals relate to the graduate education program and to design their course of study. Candidates collaborate with the Director of Education Advising to determine course selection. Classes are offered in a variety of formats and locations: evening, daytime, weekends, online, and hybrid options. Part-time students enroll in up to 5 credits per semester while full-time students enroll in at least 6 credits per semester (financial aid is available for 3 or more credits).

Once students begin the graduate education program, they are given seven years to complete the program. Students who interrupt their studies for one full academic year must reapply and must follow any new requirements upon re-entering.

Dismissed Graduate Students’ Participation in Commencement

Tuition

Tuition for graduate courses in education for 2016-17 is $538.00 per credit; $201.00 per credit to audit a course.

Financial Assistance

Financial aid in the form of student loans is available to degree-seeking students who are enrolled at least on a part-time (3 credits per semester) basis.
For further information, call the Office of Financial Aid at 262-524-7296.

- **Transfer Credits**

  Up to nine semester hours of graduate coursework in education, with a grade of B or better and taken within the past seven years, may be transferred from other accredited colleges or universities. Transfer courses are evaluated by the Director of Graduate Programs in Education on an individual basis; students must provide a course syllabus for specific course content review.

- **Master of Education Program**

  There are two distinct emphases in the M.Ed. Program:

  - **Curriculum and Instruction**
    - **Adult, Community, and Professional Education**

    Students choose one of the emphases in their graduate program.

    - **Curriculum and Instruction Emphasis**

    Students choose two content strands:

    - Wisconsin Reading Teacher License #316
    - Literacy Leadership #17
    - K-12 Writing Certificate
    - Elementary Mathematics Certificate
    - Advanced Studies in Personalized Learning

    - **Wisconsin Reading Teacher License #316**

      Students pursuing the #316 license must have an initial Wisconsin teaching license and two years of full-time teaching experience. Students seeking the #316 license must earn a grade of B or higher in each reading course and must have an overall minimum reading course grade point average of 3.00. A portfolio demonstrating proficiency in InTASC Model Core Teaching Standards and International Literacy Association standards is required prior to licensure. Candidates must successfully complete the Foundations of Reading Test with a score of 240 or above.

      - EDU674: Literacy in the Secondary School Content Areas (3 hours)
      - EDU676: Literacy in the Middle Childhood Grades (3 hours)
      - EDU675: Emergent Literacy (3 hours)
      - EDU677: Issues in Children’s and Adolescent Literature (3 hours)
      - EDU678: Reading Assessment in the K-12 Classroom (3 hours)
      - EDU680: Practicum in Assessing and Teaching Reading (3 hours)
      - Literacy Leadership #17

      Candidates seeking endorsement of the Reading Specialist #17 license must hold a Reading Teacher #316 license. Candidates must successfully complete (or provide evidence of completion) the Foundations of Reading Test with a score of 240 or above. Candidates must hold a Master degree or enrolled as a degree seeking student.

      - EDU672: Literacy Program Evaluation and Implementation (3 hours)
      - EDU673: Leadership in Literacy (3 hours)
      - EDU679: Literacy Leadership Practicum (3 hours)
      - K-12 Writing Certificate

    - **K-12 Writing Certificate**

      Teachers from all disciplines and grade levels will develop the ability to teach writing more effectively. A mix of online and face-to-face courses, workshops, and practicums in theories and practices of writing instruction prepare teachers to build a robust program for their schools.

      - EDU620: The Writing Process - Theory and Practice: Using Technology to Enhance the Writing Process (2 hours)
      - EDU621: Writing Across the Curriculum: Leadership Institute (3 hours)
      - EDU622: Writing Project Practicum (3 hours)
      - EDU623: The Zen of Collegial Studies (1 hour)
      - EDU625: Teaching the Writing Process (3 hours)
      - EDU626: Teacher as Writer: Facilitating Better Student Writing (3 hours)

    - **Elementary Mathematics Certificate**

      Elementary Mathematics Certificate candidates at Carroll University develop an in-depth understanding of mathematics content, processes, and pedagogy appropriate for grades P-5. They engage in professional learning communities and develop leadership skills to support and facilitate effective mathematics instruction and professional growth in their schools and districts.

      - EDU618: Mathematical Reasoning and Leadership for Elementary Specialists: K-5 Learning Trajectories (3 hours)
      - EDU619: Numbers and Operations: K-5 Mathematical Tasks (3 hours)
      - EDU627: Algebraic Reasoning: K-5 Discourse and Questioning (3 hours)
      - EDU628: Measurement and Data: K-5 Equations and Technology (3 hours)
      - EDU629: Geometry and Spatial Reasoning: K-5 Assessment (3 hours)

    - **Advanced Studies in Personalized Learning Certificate**

      The Advanced Studies in Personalized Learning Certificate prepares exemplary learning specialists who embrace personalized learning as transformative practice, resulting in increased student agency and deeper learning. The Advanced Studies in Personalized Learning is the result of a collaborative partnership between the Department of Education at Carroll University and The Institute for Personalized Learning, a division of CESA #1. The two organizations collaborated around opportunities to add depth to the study and practice of personalized learning.

      The Advanced Studies in Personalized Learning Certificate is a 15-credit program composed of 5 three-credit graduate education courses.

      - EDU692: Learners and Learning in a Personalized Environment (3 hours)
      - EDU693: Educators as Agents of Change (3 hours)
Graduate Program in Education

1. A Master of Science in Educational Leadership includes the requirements for Director of Instruction (#10) and Principal (#51). The M.S. is a 33-credit program. The graduate program in Education requires the completion of research related to the course of study. This experience allows students to study an issue in greater depth that is important to their professional interest and to improve practice.

2. Certification for licensure as Director of Instruction (#10) and Principal (#51). The M.S. is a 33-credit program. The graduate program in Education requires the completion of research related to the course of study. This experience allows students to study an issue in greater depth that is important to their professional interest and to improve practice.

The Educational Leadership Program provides candidates with two options:

- Master of Science in Educational Leadership

The Master of Science in Educational Leadership is designed to reflect the Wisconsin Administrator Standards, as well as the Educational Leadership Policy Standards – Interstate School Leaders Licensure Consortium (ISLLC). The program contains project-based and performance-based learning opportunities to support candidate knowledge, skills and dispositions for Educational Leadership.

The Educational Leadership Program provides candidates with two options:

1. Master of Education

   - Required Content Courses
     - EDU613: Educational Leadership Theory and Practice (3 hours)
     - EDU685: Designs of Curriculum and Instruction (3 hours)
     - EDU686: Continuous Improvement in Education (3 hours)
     - EDU687: Educational Law (3 hours)
     - EDU688: Resource Allocation and Budget Deployment (3 hours)
   
   - Practicum
     - EDU667: Instructional Supervision Seminar (2 hours)
     - EDU668: School Leadership Practicum I (1 hours)
     - EDU669: School Leadership Practicum II (1 hours)
     - EDU670: School Leadership Practicum III (2 hours)
   
   - Research Core
     - EDU607: Introduction to Educational Research (3 hours)
     - EDU609: Educational Research II (3 hours)
     - EDU614: Educational Research III (3 hours)
     - EDU616: Educational Research IV (3 hours)
   
2. Certification Only

   - Required Content Courses
     - EDU613: Educational Leadership Theory and Practice (3 hours)
     - EDU685: Designs of Curriculum and Instruction (3 hours)
     - EDU686: Continuous Improvement in Education (3 hours)
     - EDU687: Educational Law (3 hours)

   - Adult, Community, and Professional Education Emphasis

   The Carroll University Graduate Program in Adult, Community, and Professional Education (ACPE) develops knowledge, skills and dispositions to facilitate lifelong learning for adults, as a means to build capacity for community development and civic engagement. Using a participatory model of learning, candidates will understand and advocate for practices that foster respect for diversity to strengthen democracy. Candidates in this program engage in theoretical and practical application of program design, implementation and evaluation, and the facilitation of adult learning, collaboration, and leadership.

   This program supports candidates who seek to develop foundational knowledge and initial skills, as well as professionals ready to deepen their understanding and experience. Completion of this program prepares individuals with the qualifications and credentials to facilitate lifelong learning for adults, communities, and professionals within a diverse society. Candidates in this program have the option to:

   a.) Obtain a certificate in Adult Learning (15 credits)
   b.) Obtain a certificate in Civic and Community Engagement (15 credits)
   c.) Complete both certificates which results in an M.Ed in Adult, Community and Professional Education (30 credits)

   - Adult Learning (15 credits)

      This five-course sequence provides students with an understanding of adults as learners. Through the certificate program, students will be prepared to effectively facilitate personal growth and development that impacts the professional, social, and political aspects of adult learners in a range of collaborative, formal, and informal educational settings.

      - EDU641: Teaching & Learning Across the Life Span (C&I; ACE; HED) (3 hours)
      - EDU646: Administration of Adult Education Programs (ACE) (3 hours)
      - EDU647: Foundations of Adult Education (ACE) (3 hours)
      - EDU648: Facilitating Learning for Adults/The Adult as Independent Learner (ACE) (3 hours)
      - EDU649: Curriculum and Program Development in Adult and Continuing Education (ACE) (3 hours)

   - Community and Civic Engagement (15 credits)

      This five-course sequence focuses on civic studies, which sees the citizen as a "creative agent," who through public work, engages with others to promote civic renewal in communities. Important strands of study include managing common resources and assets; deliberative democracy; public work and the study of public participation in development; and incorporating social science ideas as practical wisdom that lays the foundation for real solutions to community problems.

      - EDU601: Educators as Researchers (RC) (3 hours)
      - EDU602: Framing and researching the Problem (RC) (3 hours)
      - EDU689: Foundations of Community and Equity (3 hours)
      - EDU690: Civic Engagement (3 hours)
      - EDU697: Leadership and Advocacy (3 hours)
The following courses are offered through our Graduate Program.

### Graduate Courses

- **EDU688**: Resource Allocation and Budget Deployment (3 hours)
- **Practicum**
  - **EDU667**: Instructional Supervision Seminar (2 hours)
  - **EDU668**: School Leadership Practicum I (1 hour)
  - **EDU669**: School Leadership Practicum II (1 hour)
  - **EDU670**: School Leadership Practicum III (2 hours)

### Program Delivery

The Educational Leadership Program is delivered through a Learning Community. The Learning Community participants meet together one weekend a month over a twenty month period. While Learning Communities come together on a regular, scheduled basis, each Learning Community and the nested groups within this structure often create supplementary group time beyond the mandate of the program. In the Educational Leadership Program each Learning Community is co-facilitated by two instructors who follow the cohort through the entirety of the program. Enrollment in the Educational Leadership Program begins annually in August.

The Learning Community provides a setting for teaching and learning culminating in enhanced performance in the workplace. Learning Communities are viewed by school leaders as the preferred model as they create a social, collegial, learning culture which promotes reflective practice leading to deeper understanding and solutions for PK-12 schools.

#### Educational Leadership Program List of Courses

**Educational Leadership Admission Criteria**

Applicants begin the admission process by completing a Carroll University Graduate Studies Application and submitting a professional resume. Application, resume, and official transcripts of all previous post-secondary coursework are submitted to the Carroll University Graduate Admission Office.

Applicants must have an undergraduate degree from an accredited college or university and an undergraduate grade point average of 2.75 on a 4.0 scale. Admission decisions are made when applications are complete.

Applicants must hold or be eligible to hold any Professional Educator License to teach at the early childhood through adolescence level or have completed an approved program leading to a license to teach, or hold or be eligible to hold a Professional Educator License as a school counselor, a school psychologist, or a school social worker, or have completed an approved program leading to one of these licenses.

Applicants must have completed three years of successful full-time teaching experience at any of the grades at the early childhood through adolescence level or have completed three years of successful experience as a school counselor, a school psychologist, or a school social worker, which includes evidence of at least 540 hours of successful classroom teaching experience.

### License and Certification Programs

#### License and Certification Programs

The following programs can be taken for licensing or certification only.

- **The Wisconsin Reading Teacher License (#316) Program**

  Graduate students who have an initial Wisconsin teaching license and two years of full-time teaching experience can qualify for an additional license as K-12 Reading Teachers by completing Carroll's Reading Teacher sequence. EDU 674, 675, 676, 677, 678, and 680 compose the graduate level requirements for the #316 license. Students seeking the #316 license must earn a grade of B or higher in each reading course and must have an overall minimum reading course grade point average of 3.00.

- **The Wisconsin Alternative Education Certification**

  A set of four courses provides the competencies teachers need to qualify for the Alternative Education License Certificate (#952). Effective July 1, 1996, this early adolescent certification is required by the Wisconsin Department of Public Instruction for all teachers who teach students in nontraditional environments. The four courses, EDU 653, 655, 657 and 683, may be taken without enrollment in the M.Ed. program, or they may count toward degree completion in the C & I emphasis.

- **Wisconsin Adaptive Education License**

  This five course sequence, combined with a field placement, will enable credentialed teachers to earn the #859 license at the graduate level. The coursework enables teachers to work effectively with special education students who are mainstreamed or integrated into their classrooms. Students enrolled in the certification sequence will maintain a portfolio that will include selected information from each course, demonstrating how the competencies they are acquiring are applied to their particular educational contexts. A course in the education of the exceptional child is a prerequisite. Courses can be combined with the M.Ed. program in the contemporary curriculum issues strand or taken for licensure only.

  The courses are EDU 660, EDU 661, EDU 662, EDU 663, EDU 664.

- **Health Education**

  Initial educators who wish to extend their Wisconsin license certification may complete course work in Health Education to add the 910 Health Education License. Requirements include undergraduate courses BIO130, BIO140, HSC101, in addition to HED650, HED651, HED652, HED661, and EDU683. Successful completion of the Praxis II content test and portfolio/practicum in Health Education is required for additional licensure.

### Graduate Courses

The following courses are offered through our Graduate Program.

- **EDU608**: Educators as Researchers (RC) (3 hours)
- **EDU607**: Introduction to Educational Research (3 hours)
- **EDU606**: Learning Community Theory and Practice (3 hours)
- **EDU605**: Thesis Preparation (RC) (3 hours)
- **EDU604**: Instructional Supervision Seminar (2 hours)
- **EDU603**: Research Design, Data Collection, Analysis (RC) (3 hours)
- **EDU602**: Framing and Researching the Problem (RC) (3 hours)
- **EDU601**: Educators as Researchers (RC) (3 hours)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EDU609</td>
<td>Educational Research II</td>
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<tr>
<td>EDU611</td>
<td>Culturally Relevant Teaching</td>
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<tr>
<td>EDU612</td>
<td>Authentic Learning and Assessment</td>
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<td>EDU613</td>
<td>Educational Leadership Theory and Practice</td>
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<tr>
<td>EDU614</td>
<td>Educational Research III</td>
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<tr>
<td>EDU615</td>
<td>Educational Leadership Theory and Practice III</td>
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<tr>
<td>EDU616</td>
<td>Educational Research IV</td>
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<tr>
<td>EDU617</td>
<td>Educators as Leaders</td>
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<tr>
<td>EDU618</td>
<td>Mathematical Reasoning and Leadership for Elementary Specialists: K-5 Learning Trajectories</td>
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<tr>
<td>EDU619</td>
<td>Numbers and Operations: K-5 Mathematical Tasks</td>
<td>3 hours</td>
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<tr>
<td>EDU621</td>
<td>Writing Across the Curriculum: Leadership Institute</td>
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<tr>
<td>EDU622</td>
<td>Writing Project Practicum</td>
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<td>EDU623</td>
<td>The Zen of Collegial Studies</td>
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<tr>
<td>EDU625</td>
<td>Teaching the Writing Process</td>
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<td>EDU626</td>
<td>Teacher as Writer-Facilitating Better Student Writing</td>
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<tr>
<td>EDU627</td>
<td>Algebraic Reasoning: K-5 Discourse and Questioning</td>
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<tr>
<td>EDU628</td>
<td>Measurement and Data: K-5 Equity and Technology</td>
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<td>EDU629</td>
<td>Geometry and Spatial Reasoning</td>
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<td>EDU631</td>
<td>Cognitively Guided Instruction in Mathematics-Workshop</td>
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<td>EDU634</td>
<td>Applying Educational Technology in K-12 Classrooms</td>
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<tr>
<td>EDU639</td>
<td>Identifying Obstacles to Rational Thought to Enhance Advocacy for Self and Others</td>
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<tr>
<td>EDU640</td>
<td>Foundations of Gifted and Talented Education (CCI)</td>
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<td>EDU641</td>
<td>Teaching &amp; Learning Across the Life Span (C&amp;I; ACE; HED)</td>
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<td>EDU643</td>
<td>Curriculum Making - Past and Present (C&amp;I-C)</td>
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<td>EDU644</td>
<td>Education of Gifted &amp; Talented Students - Workshop (CCI)</td>
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<td>Collaboration in the Classroom (ACE)</td>
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<td>Administration of Adult Education Programs (ACE)</td>
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<td>EDU647</td>
<td>Foundations of Adult Education (ACE)</td>
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<td>Facilitating Learning for Adults/The Adult as Independent Learner (ACE)</td>
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<td>EDU649</td>
<td>Curriculum and Program Development in Adult and Continuing Education (ACE)</td>
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<td>EDU650</td>
<td>Sociology of Education (C-IS)</td>
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<td>EDU652</td>
<td>Culturally Responsive Teaching Practice (S-CI)</td>
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<td>EDU653</td>
<td>Rethinking At Risk* Students - Creating Promise (S-CI)</td>
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<td>EDU654</td>
<td>Developing Multicultural and Global Curricula (C&amp;I-S)</td>
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<td>EDU655</td>
<td>Families in Society (CCI; S-CI)</td>
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<td>EDU656</td>
<td>Career Guidance and Counseling through the Adult Lifespan</td>
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<td>EDU657</td>
<td>Pedagogy for Alternative Learning Environments (S-CI)</td>
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<tr>
<td>EDU658</td>
<td>Philosophical/Ethical Issues in Education (S-CI)</td>
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<td>EDU660</td>
<td>Strategies for Diagnostic Assessment</td>
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<td>EDU661</td>
<td>Language Development/Disorders of the Exception Child</td>
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<td>Instructional Strategies for Students with Special Needs</td>
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<td>EDU663</td>
<td>Serving Students Beyond the Classroom</td>
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<td>EDU664</td>
<td>Field Experience in Adaptive Education</td>
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<td>EDU669</td>
<td>School Leadership Practicum II</td>
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<td>EDU671</td>
<td>Understanding Self, Race, Class and Gender to Leverage Student Achievement</td>
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<td>EDU672</td>
<td>Literacy Program Evaluation and Implementation</td>
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<td>EDU673</td>
<td>Leadership in Literacy</td>
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<td>EDU674</td>
<td>Literacy in the Secondary School Content Areas</td>
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<td>Emergent Literacy</td>
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<td>Literacy in the Middle Childhood Grades</td>
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<td>Issues in Children's and Adolescent Literature</td>
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<td>EDU678</td>
<td>Reading Assessment in the K-12 Classroom</td>
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<td>EDU679</td>
<td>Literacy Leadership Practicum</td>
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<td>EDU680</td>
<td>Practicum in Assessing and Teaching Reading</td>
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<td>EDU682</td>
<td>Supervision of Student Teachers- Theory and Practice</td>
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<td>EDU683</td>
<td>Graduate Internship in Education (1 TO 3 hours)</td>
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<tr>
<td>EDU689</td>
<td>Foundations of Community and Equity</td>
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<td>EDU690</td>
<td>Civic Engagement</td>
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<td>EDU691</td>
<td>Graduate Special Topics (1 TO 3 hours)</td>
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<td>EDU692</td>
<td>Learners and Learning in a Personalized Environment</td>
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<td>EDU693</td>
<td>Educators as Agents of Change</td>
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<td>EDU694</td>
<td>Facilitating in a Personalized Learning Environment</td>
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<td>EDU695</td>
<td>Evaluating Personalized Learning</td>
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<td>EDU696</td>
<td>Collaborating in a Personalized Environment</td>
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<td>EDU697</td>
<td>Leadership and Advocacy</td>
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<td>EDU698</td>
<td>Independent Study (1 TO 3 hours)</td>
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<tr>
<td>HED606</td>
<td>Statistical Methods for the Health Sciences</td>
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<td>HED607</td>
<td>Graduate Professional Project in Community Health Education I</td>
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<td>HED650</td>
<td>Graduate Professional Project in Community Health Education II</td>
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<tr>
<td>HED650</td>
<td>Thry &amp; Foundations of Health Education</td>
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<tr>
<td>HED651</td>
<td>Planning and Implementation of Health Education Programs (HED)</td>
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<tr>
<td>HED652</td>
<td>Eval &amp; Assessment of Health Education Programs</td>
<td>3 hours</td>
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<td>HED653</td>
<td>Prcin of Health Behavior (HED)</td>
<td>3 hours</td>
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<td>HED656</td>
<td>Epidemiology and Public Health Issues (HE)</td>
<td>3 hours</td>
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<td>HED656</td>
<td>Resources for Health Education</td>
<td>3 hours</td>
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<tr>
<td>HED663</td>
<td>Public Health Policy and Administration</td>
<td>3 hours</td>
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</tbody>
</table>
Master of Science in Exercise Physiology Program

Jessica M. Brown  Assistant Professor
Brian P. Edlebeck  Clinical Assistant Professor
Jamie L. Kryzekowski  Clinical Assistant Professor
Thomas G. Pahnke  Director of Exercise Physiology and Clinical Associate Professor; Human Movement Sciences Chair
Daniel Shackelford  Assistant Professor
Timothy J. Suchomel  Assistant Professor

PROGRAM OVERVIEW

The Master of Science in Exercise Physiology Program offers two different concentrations: Clinical exercise physiology, and strength & conditioning. Both concentration areas incorporate extensive hands-on experiences through multiple practicums and internships. Coursework includes both lecture and lab, incorporating innovative approaches to performance, exercise, and rehabilitation. The mission of the M.S. in Exercise Physiology Program is to prepare qualified professionals at the master's level to work in clinical rehabilitation settings, health promotion/preventative program settings, fitness and sport programs, tactical training programs, and college/university settings. Upon graduation, students would possess the breadth and depth of knowledge and skills in the field to sit for a variety of clinical and related specialty certifications, and/or doctoral level work in exercise physiology or other allied health disciplines.

Learning Outcomes

The following learning outcomes were developed based on the established scope of practice and services for exercise physiology. Students completing the clinical exercise physiology concentration would be eligible to sit for the ACSM-RCEP or ACSM-CEP certification exams, and prepared to work in cardiovascular diagnostic centers, a variety of clinical rehabilitation settings, including inpatient and outpatient, and preventative cardiology programs.

Students completing the strength and conditioning concentration would possess the same general skills and abilities with a strong focus on strength training, performance assessment, and programming to optimize training adaptations and fitness.

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

1) Identify, perform, and interpret appropriate screenings to assess the health status of persons from diverse populations and health conditions.
2) Appropriately apply the principles, recommendations, and skills for exercise testing and prescription, and evidence-based decision making in planning safe and effective exercise programs for persons from diverse populations and health conditions.
3) Understand common chronic diseases and disabilities, disease progression, interventions, and the adaptations resulting from exercise, and apply this information in developing, implementing, and evaluating comprehensive programs that address client needs and goals.
4) Understand and apply problem-solving skills and current practices in risk factor reduction and lifestyle management to include goal setting, behavior change theory, motivational strategies, and health/wellness coaching.
5) Evaluate and use an array of testing and exercise equipment, and technologies to support clinical/sports medicine practice.
6) Demonstrate competence in communication and interpersonal skills in the provision, instruction, and supervision of programs and services in clinical/sports medicine practice.
7) Examine and critique the scientific literature in the discipline, synthesize relevant information, and appropriately convey that information in scientific writing and oral communication.
8) Evaluate and understand the importance and value of ethical and professional standards of practice to include being accountable for individual non-medical judgments and professional decisions about health and fitness, preventive, rehabilitative, and/or educational services and programs, and applied research.

General Degree Requirement

The M.S. in Exercise Physiology is a 21-month program, requiring a total of 58 credit hours to include 9 credits of common core requirements, and 46-49 credits of concentration requirements. Students electing to take the non-thesis option to fulfill the research requirements of the program will take 3 credits of electives.

Admission

The Master of Science in 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. Students can enter the Master of Science in Exercise Physiology Program in one of three ways:

1. Prior Degree – An individual who has completed an undergraduate or graduate degree at another institution or at Carroll can apply for the Master of Science in Exercise Physiology Program.
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 consist of graduate level study in the Master of Science in Exercise Physiology Program. Upon completion of the first year of the Master of Science in Exercise Physiology Program, a Carroll University Bachelor of Science degree in Exercise Science is awarded, and upon successful completion of all graduate credits (38 total credits), the Master of Science in 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 ANP130 & 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 below.

Applications and credentials for admission to the Master of Science in Exercise Physiology Program must be submitted for processing to the Carroll University Office of Admission. Applications are reviewed case-by-case on a monthly basis, continuously throughout the year and prior to the start of the fall term (September). 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.

Requirements for admission into the Master of Science in Exercise Physiology Program include:

1. Evidence of a baccalaureate degree from an accredited institution or an equivalent institution will be awarded prior to the start of the Master of Science in Exercise Physiology Program for all non-traditional applicants and by the completion of senior year for all Carroll 3+2 completion plan applicants.
2. Cumulative and pre-professional GPA of 2.75 (on a 4.0 scale) is recommended to be considered for admission.
3. Pre-professional courses should typically be completed within the past seven years from the time of application with grades of ‘C’ or better. Candidate’s with course work older than seven years should have relevant experience within the field to be considered. Pre-professional courses are indicated below with an asterisk.
4. Proof of current First Aid and CPR certification for the professional rescuer is required prior to commencing the graduate program.
5. Health Screening and Background Check - Master of Science in Exercise Physiology 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.

Applicants must comply with all admission requirements listed above. Selection decisions will be based on evaluation of:

1. Graduate Studies On-line Application
2. Supplemental application packet, which includes the following:
   - Three letters of reference
   - Essay (must be typed)
   - Experiences document (a professional resume may be submitted, although the Carroll supplemental forms are preferred)
3. Safety and technical standards
4. Official transcripts from all post-secondary institutions attended, including both graduate and undergraduate course work – must be mailed directly to Carroll University Admission Office.
5. Successful completion of prerequisite course work. Pre-professional courses are indicated below with an asterisk.

International candidates may have additional admission requirements. Please contact the Office of Admission for details.

Required Prerequisite Course Work

The following courses must be completed prior to commencing the Master of Science in Exercise Physiology Program:

- One undergraduate level statistics course
- One undergraduate level psychology course
- One undergraduate level anatomy course with lab*
- One undergraduate level physiology course with lab*
- One undergraduate level exercise physiology course*
- One undergraduate level exercise testing and prescription course is suggested, but not required*
- Course equivalency or related content in exercise testing and exercise programming, strength and conditioning, personal training or wellness coaching will be considered.

*Indicates course work included in pre-professional GPA calculation.

Direct Admission Application and Progression Requirements

To be considered for direct admission, applicants must:

1. Apply to the MEXP program Graduate Online Application by May 1st of the spring semester of the freshman and/or sophomore year.
2. Email the Graduate Admission Office – (gradinfo@carrollu.edu) to indicate:
   - your intent and request to be considered for direct admission to the MEXP Program.
   - to verify when your anatomy and physiology I and II courses with labs will be completed.

Direct admission candidates must meet the following progression requirements prior to entering the graduate program:

1. Earn a 3.0 cumulative and pre-professional GPA. Pre-professional course work must be grades of ‘C’ or better and is indicated with an asterisk below.
2. Submit the following by February 1st, prior to entering the fall term of the Master of Science in Exercise Physiology graduate program (i.e. February 1st after the junior or senior year at Carroll):

1. **Graduate Online Application** to apply for progression into the Master of Science in Exercise Physiology Program
2. Documentation of a minimum of 10 hours of observation/volunteer experience in a clinical exercise physiology or cardiac rehabilitation setting. A hospital setting is recommended.
3. Successfully complete or be in progress of completing all of the Master of Science in Exercise Physiology prerequisite course work, undergraduate major, support, and general education course work prior to entering the graduate program (note: CC540 may be completed during year one of the graduate program). Pre-professional coursework includes (or equivalent):
   1. ANP130 & ANP140, Anatomy & Physiology I and II with labs*
   2. ESC280, Exercise Physiology with lab*
   3. ESC320, Exercise Testing & Prescription with lab*
   4. PSY101, Introduction to Psychology (or higher)
   5. CMP112 & CMP114, Computational Thinking I and II
4. Proof of current CPR and First Aid certification for the Professional Rescuer or Healthcare Provider is required prior to commencing the program.

Admission and progression standards are subject to change based on regulatory, licensing and/or certification needs.

- **Technical Standards**

**TECHNICAL STANDARDS FOR ADMISSION TO AND PROGRESSION IN THE EXERCISE PHYSIOLOGY PROGRAM**

Successful participation in the M.S. in Exercise Physiology program requires that a student possess the ability to meet the requirements of the program. Though the program can modify certain course requirements in order to provide a handicapped person (as defined by the federal government pursuant to SS 504 of the Rehabilitation Act of 1973) with an equivalent opportunity to achieve the same results as those students without a handicap, there are no substitutions for the following essential skills. The applicant must initially meet these requirements to gain admission to the program, and must continue to meet them throughout participation in the program.

1. **Physical Ability:** The student must be able to perform gross and fine motor movements with sufficient coordination needed to provide safe and effective assessments and interventions for clients/patients across the lifespan. The student is expected to possess the psychomotor skills and physical abilities necessary to safely and correctly perform a wide variety of health/fitness screenings, assessments, exercise tests, and exercise demonstrations. Examples of assessments include, but are not limited to, resting vitals and other biometrics, cardiopulmonary tests, functional capacity, ECGs, anaerobic testing, musculoskeletal fitness, range of motion (ROM), body composition, balance, and functional abilities. Interventions include, but are not limited to, patient education, cardiovascular fitness training, endurance training, resistance training, performance training, flexibility and ROM, neuromuscular training, and functional training.

2. **Communication Ability:** The student must communicate effectively verbally and non-verbally to obtain important information and to clearly explain information to others as well as to facilitate communication among the patient, family members and other professionals. Each student must have the ability to speak and comprehend the English language as well as be able to read and write in a manner that meets the standards for literacy in higher education. Students must be able to actively listen and possess basic interviewing skills. The student must be able to document and maintain accurate records, and present information in a professional and appropriate manner to the target audience.

3. **Intellectual/Cognitive Ability:** The student must demonstrate the ability to develop critical thinking and problem-solving skills essential to the field of exercise physiology. Problem solving skills include the ability to measure, calculate, reason, analyze, synthesize, and judge objective and subjective data, and to make decisions in a timely manner that reflect thoughtful deliberation and sound judgment. The student must also possess the ability to comprehend, retain, retrieve and incorporate prior knowledge with new information from multiple sources including, but not limited to self, peers, instructors and related literature to formulate sound decisions for competent client/patient management, practice management, and scholarship.

4. **Interpersonal Attributes:** The student is expected to demonstrate sufficient stable emotional behavior to effectively work with others, perform assessments, and perform intervention activities. Empathy, integrity, motivation, honesty, and caring are personal attributes required of those in the Master of Science in Exercise Physiology program. The student must have the ability to establish rapport and maintain respectful interpersonal relationships with individuals, families, groups and professionals from a variety of social, emotional, cultural and intellectual backgrounds, and to collaborate effectively. Each student must be able to adapt to changing environments, displaying flexibility and a positive demeanor as well as to accept and integrate constructive criticism given in the classroom and professional settings. In addition, the student must demonstrate personal responsibility and accountability for their actions and reactions to individuals, groups, and situations to include the prompt completion of all responsibilities and tasks in the classroom and professional settings. Students must demonstrate continuous self-assessment to improve as a professional.

5. **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 professional settings, including emergency situations. Students will encounter multiple stressors while in the Master of Science in Exercise Physiology Program, and must effectively manage these stressors on an ongoing basis. These stressors might be related to (but are not limited to) personal issues, family, peers, supervisors/faculty, and clients/patients.

6. **Health Screening and Background Check:** The student is required to complete a health screening/physical, 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.

- **Caregiver Background and Criminal History Check**

On October 1, 1998, the State of Wisconsin Department of Health and Family Services mandated that all persons who seek to be employed and licensed in the caregiver industry must fulfill the caregiver and background check requirements in section 50.065 of the Wisconsin Statute. Prior to beginning their internship, students are required to complete a background and criminal history check, and abide by the university and state regulations pertaining to the findings.
Insurance

Professional Liability: Students are required to purchase professional liability insurance on an annual basis through a university endorsed provider.

Academic Progression in Exercise Physiology

A grade of B or better is required in all Exercise Physiology courses. A letter grade of C, D, F or U in an Exercise Physiology course results in the student being placed on academic probation within the program until the student is able to repeat the course and progress to subsequent courses for which the failed course is a prerequisite. When repeating an Exercise Physiology course a student may be required to successfully complete ancillary learning experiences or clinical competencies/practicums that validate theoretical knowledge. 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 suspension and repeats the course during the next appropriate semester. A course may be repeated only one time. A student receiving a C, D, F or U in the same Exercise Physiology course twice or in two Exercise Physiology courses is dismissed from the program.

A student must obtain a GPA of 3.00 or better each semester. If a student earns a semester grade point average between 2.00 – 2.99, he/she is placed on academic probation. To be removed from academic probation the student must earn a GPA of 3.00 or better in the following semester. If a clinical internship course is scheduled during the next semester, the student must earn a satisfactory (S) grade in the clinical internship course and a GPA of 3.00 or better in the semester following the clinical internship to be removed from academic probation.

If a student was placed on academic probation once and a second violation of the academic progression policy, either a grade of C, D, or F, in a course or a GPA below a 3.00 the student will be dismissed from the program.

Students who cancel or withdraw from the Master of Science in Exercise Physiology Program forfeit their position in the program. Students wishing to re-enter the graduate program after cancelling or withdrawing must go through the full re-application process.

Since transportation to and from clinical and practicum sites is the student’s responsibility, a vehicle is required for each student.

Dismissed Graduate Students’ Participation in Commencement

Fees

Graduate tuition and semester Program Fees are assessed to cover student liability insurance, professional memberships, personal and program related equipment and supplies for the Exercise Physiology Program are published in the Tuition and Fees section of the Graduate Catalog.

Curriculum: 58 Credits

Curriculum: 58 Credits

Core Requirements in Masters of Science in Exercise Physiology - 9 credits
- EXP503: Advanced Exercise Physiology (3 hours)
- EXP607: Graduate Research Project I (3 hours)
- HED606: Statistical Methods for the Health Sciences (3 hours)

Concentration Requirements in Clinical Exercise Physiology (CEP) - 46 - 49 credits
- EXP501: Advanced Cardiac Life Support (ACLS) (1 hours)
- EXP505: Laboratory Methods I (2 hours)
- EXP510: Advanced Exercise Testing and Prescription (3 hours)
- EXP511: Cardiopulmonary Testing (2 hours)
- EXP512: Electrocardiography (2 hours)
- EXP513: Advanced Electrocardiography (2 hours)
- EXP516: Exercise Testing and Prescription for Clinical Populations (3 hours)
- EXP517: Laboratory Methods II (2 hours)
- EXP520: Client-centered Clinical Practice in Exercise Physiology (4 hours)
- EXP560: Pathophysiology (3 hours)
- EXP580: Practicum I (4 hours)
- EXP590: Practicum II (4 hours)
- EXP600: Practicum III (3 hours)
- EXP608: Graduate Research Project II (1-3 hours)
- EXP610: Practicum IV (4 hours)
- EXP615: Concepts in Functional Rehabilitation (2 hours)
- EXP620: Entrepreneurism in Health and Fitness (2 hours)
- HED651: Planning and Implementation of Health Education Programs (HED) (3 hours)

Concentration Requirements in Strength and Conditioning (SC) - 46 - 49 credits
- EXP500: Advanced Strength and Conditioning I (3 hours)
- EXP504: Advanced Assessment of Physical Performance (4 hours)
- EXP521: Exercise and Sports Psychology (4 hours)
- EXP522: Sport Biomechanics (4 hours)
- EXP579: Internship I (3 hours)
- EXP581: Internship II (4 hours)
- EXP582: Internship III (4 hours)
- EXP591: Advanced Strength and Conditioning II (3 hours)
- EXP601: Internship IV (3 hours)
- EXP602: Adv. Sport Nutrition Assessment & Prescription (3 hours)
- EXP608: Graduate Research Project II (1-3 hours)
- EXP609: Current Topics in Strength and Conditioning (2 hours)
- EXP605: Injury Prevention and Rehabilitation (3 hours)
- HED651: Planning and Implementation of Health Education Programs (HED) (3 hours)
- HED652: Eval & Assessment of Health Education Programs (3 hours)

Elective Credits
Students electing to take the non-thesis option to fulfill the research requirements of the program will take 3 credits of electives.

- Two Year Plan, Clinical Exercise Physiology concentration
- Two-Year Plan, Strength and Conditioning concentration

### Graduate Courses

The following courses are offered through our Graduate Program.

- EXP500: Advanced Strength and Conditioning I (3 hours)
- EXP501: Advanced Cardiac Life Support (ACLS) (1 hour)
- EXP503: Advanced Exercise Physiology (3 hours)
- EXP504: Advanced Assessment of Physical Performance (4 hours)
- EXP505: Laboratory Methods I (2 hours)
- EXP510: Advanced Exercise Testing and Prescription (3 hours)
- EXP511: Cardiopulmonary Testing (2 hours)
- EXP512: Electrocardiography (2 hours)
- EXP513: Advanced Electrocardiography (2 hours)
- EXP516: Exercise Testing and Prescription for Clinical Populations (3 hours)
- EXP517: Laboratory Methods II (2 hours)
- EXP520: Client-centered Clinical Practice in Exercise Physiology (4 hours)
- EXP521: Exercise and Sports Psychology (4 hours)
- EXP522: Sport Biomechanics (4 hours)
- EXP560: Pathophysiology (3 hours)
- EXP580: Practicum I (4 hours)
- EXP581: Internship II (4 hours)
- EXP582: Internship III (4 hours)
- EXP590: Practicum II (4 hours)
- EXP591: Advanced Strength and Conditioning II (3 hours)
- EXP600: Practicum III (3 hours)
- EXP601: Internship IV (3 hours)
- EXP602: Adv. Sport Nutrition Assessment & Prescription (3 hours)
- EXP607: Graduate Research Project I (3 hours)
- EXP608: Graduate Research Project II (1-3 hours)
- EXP610: Practicum IV (4 hours)
- EXP615: Concepts in Functional Rehabilitation (2 hours)
- EXP620: Entrepreneurism in Health and Fitness (2 hours)
- EXP692: Current Topics in Strength and Conditioning (2 hours)
- EXP695: Injury Prevention and Rehabilitation (3 hours)
- EXP501: Advanced Cardiac Life Support (ACLS) (1 hour)
The Master of Occupational Therapy (MOT) Program embraces the concept of healthy occupational engagement as a determinant of health and acknowledges that the essence of healthy life participation lies in meaningful occupation, which is an experience unique to each person and the context in which they exist. The Carroll University Compact exhorts students to "contemplate" the obligation of considering thoughtfully the "values and ideals espoused" by others. Diversity is an inherent factor in the self, and is what makes one human. Therein lies the link between occupation and OT practice and it is this connection that drives the curricular philosophy and mission of the MOT Program and creates an alliance with the University and the student standards set forth.

In essence, the MOT curriculum is a plan for learning that will prepare students as generalists in OT practice, well grounded in the understanding of therapeutic occupation as it applies to diverse populations and communities. The program supports student application of a humanistic perspective to practice by interspersing within the curriculum opportunities for self-reflection and the development of self-awareness and recognition of the intrinsic and personal value of occupation. The program promotes a safe and supportive learning environment through which students develop and then share an appreciation of the parameters of the foundational and theoretical sciences with an understanding that the human condition is also an orchestration of personhood, culture, and an innate need to engage in occupation. The program fosters opportunities for "just right" challenges combining didactic instruction with experiential learning, and respects differences in student learning styles and thus use methods that favor individuality in learning and link pedagogy to real-world contexts such as hands-on, self-directed, problem-based and experiential learning opportunities.

The curriculum offers students a lens through which they progressively analyze components of life participation including person, population, environment, socio-cultural, and occupation interactions. This lays the foundation for student development of ethical and professional behaviors expected of practitioners according to standards, values, and attitudes of the occupational therapy profession. To this end, the Master of Occupational Therapy Program supports student application of a humanistic perspective to practice by interspersing within the curriculum opportunities for self-reflection and the development of self-awareness and recognition of the intrinsic and personal value of occupation.

Admission Information and Requirements

Admission to the Carroll University Master of Occupational Therapy requires a baccalaureate degree from an accredited institution and satisfactory completion of prerequisite coursework prior to matriculation. The program considers all qualified applicants without discrimination 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 occupational therapy practice as provided by law.

Carroll utilizes the Occupational Therapist Centralized Application Service (OTCAS) to collect application materials in addition to a Carroll University Supplemental Application.

Timeline for Admission

The 2016–17 OTCAS admissions cycle begins mid July 2016. Applicants may start and submit the OTCAS application as soon as it is available. Once an application is deemed complete by OTCAS, the Service will verify the accuracy of the application materials, compare original transcripts to the self-reported course information on the application, calculate GPAs, and submit the verified application file directly to Carroll University.

Complete instructions for submitting the OTCAS application are available on the OTCAS website, http://www.otcas.org.

Required Application Materials

- Verified OTCAS application
The following materials must be submitted to OTCAS:
- Official transcripts from all undergraduate and graduate institutions
- Three letters of reference - suggested authors include a college instructor, a supervisor and an occupational therapist
- List of coursework in progress
- Volunteer/Observation hours in an OT setting - Applicants must convey an understanding of the OT profession. Exposure to occupational therapy can be in the form of volunteering, observation and/or work experience within a setting where occupational therapy services are conducted. 40 hours completed at the time of application are strongly recommended.
- Personal Essay

The following materials must be submitted to Carroll University Graduate Admissions:
- Carroll University MOT Program Supplemental Fee
- GRE Score Report sent to Carroll University/OTCAS via ETS Code #1211
- GRE scores must be current within the last 5 years.

Prerequisite Coursework - one semester each:
Prerequisites must be completed from an accredited junior college, college, or university. Most courses can be completed either in a classroom setting or on-line. Anatomy must be completed in a classroom setting.
- Anatomy
- Physiology
- Introductory Psychology
- Abnormal Psychology
- Lifespan Psychology
- Introductory Sociology or Cultural Anthropology
- Statistics

Other Admission Information
- Completion of all prerequisites is required prior to matriculation.
- Cumulative and Prerequisite GPA of 2.75 is suggested.
- Prerequisite courses must be completed with a "C" or higher. Note that a "C-" will not be accepted.
- Only full-time students are admitted to the program.
- Class size per cohort is 30 students and will be admitted based on individual merits.
- Students need not have received their bachelor's degree from Carroll University, but those who do will receive a calculated advantage in the admission process.
- AP courses will be accepted for general psychology, sociology and statistics if listed on university transcript.
- The Carroll University MOT program will not accept transfer students or transfer credits for any required courses in Occupational Therapy. Student accepted into the program must complete all required occupational therapy courses. Advanced placement will not be granted for any reason, including prior academic studies or professional experience.

No more than 2 courses can be pending at the time of application. Pending courses must be listed on the OTCAS application or in coordination with the graduate admission office. Failure to comply may necessitate a revocation of acceptance into the program

Admitted students will need to submit ALL official college transcripts directly to Carroll University prior to matriculation. Admitted students and will be 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 program.

International applicants and those who graduated from a non-US college or university must complete the following in addition to the above:
- Three (3) hours of English composition completed at an accredited US or Canadian college or university if the initial education was not taken at an English-speaking university
- 20 hours of natural sciences taken at an accredited US or Canadian college or university. These hours must include 2 semesters of Anatomy and Physiology coursework. Anatomy must be completed in a classroom setting
- Documented completion of baccalaureate degree from accredited institution or equivalent via an international credit evaluation must be sent directly to OTCAS
- Official TOEFL scores must sent directly to Carroll University for those who graduated from a non-US college or university
- Documentation needed to issue I-20

Please also see the Office of International Education webpages.

Transfer of Credits Information
The Carroll University MOT Program does not accept transfer students or transfer credits for any required courses in Occupational Therapy. Students accepted into the program must complete all required occupational therapy courses. Advanced placement is not granted for any reason, including prior academic studies or professional experience.

Student Learning Outcomes

Graduates of the Carroll University MOT Program will:
1. Be prepared to be socially responsible and accountable through service to the community and application of best practice strategies for an identified population.
2. Have acquired sound knowledge of and appreciation for the ethical and practical considerations that effect health and wellness of the underserved and underrepresented populations and the impact this has on occupational justice and potential disparity of services.
3. Be prepared to advocate as a professional for occupational therapy services offered and for the recipients of those services.
4. Be prepared to competently and professionally communicate and collaborate interprofessionally with peers, colleagues, clients and families, and other health care professionals in order to clarify each member’s responsibility in executing components of an intervention plan.
5. Be able to plan and apply occupational therapy interventions to address the physical, cognitive, psychosocial, sensory, and other aspects of performance in a variety of contexts, roles and environments to support engagement in everyday life activities that affect health, well-being, and quality of life.
6. Be able to plan and apply the therapeutic use of self and occupation in evaluation, assessment, screening, and interventions that are culturally sensitive and client-centered, to achieve expected outcomes as related to occupation.
7. Be educated as a generalist with broad exposure to delivery models and systems used in traditional, current and emerging occupational therapy practice settings.
8. Acknowledge the distinct roles and responsibilities of the occupational therapist and occupational therapy assistant in the supervisory process.
9. Have achieved entry-level competence through a combination of academic and fieldwork education.
10. Be prepared to be a lifelong learner and keep current with evidence-based professional practice so as to support the growth and dissemination of research and knowledge that will contribute to the profession of occupational therapy and to those served through the profession.
11. Model and uphold the ethical standards, values, and attitudes of the occupational therapy profession towards self, clients, and in interactions and communications with others.
12. Analyze and appreciate the human condition as a collective experience of culture, personhood, social and economic change, and other contexts and how this might affect access to and response to health care.
13. Develop a knowledge of evidence-based practice and promote an analytical and critical understanding of occupational therapy practice.

• Master of Occupational Therapy Program Technical Standards

Master of Occupational Therapy Program Technical Standards

In preparation for professional roles occupational therapy students are expected to demonstrate the ability to meet the demands encountered in an occupational therapy career. Certain functional abilities are essential for the delivery of safe and effective care. An applicant to the MOT Program must independently, with or without reasonable accommodation, meet and maintain the following technical standards for progression throughout 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 comprehend, write, hear, 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.

Psychomotor Ability

The student must be able to perform gross and fine motor movements with sufficient coordination needed to provide complete safe effective care for patients. The student is expected to have psychomotor skills necessary to safely perform examination procedures and treatment interventions, including CPR if necessary. Examples of examination procedures include, but are not limited to, cognitive assessment, range of motion, manual muscle testing, sensation, balance, functional abilities, pain, cardiopulmonary status, percussion, palpation, and anthropometric. Treatment interventions include, but are not limited to, electrotherapy, radiation, heat, cold, and wound care.

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. The MOT curriculum may require students 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/Cognitive Ability

The student must have the ability to develop critical thinking and problem-solving skills essential to professional occupational therapy practice. Problem solving skills include the ability to measure, calculate reason, analyze, synthesize, and judge 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 comprehend, retain, retrieve and incorporate prior knowledge with new information from multiple sources including, but not limited to self, peers, instructors and related literature to formulate sound judgment for competent patient/client management, practice management, and functions required for clinical scholarship.

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 MOT 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 student must have the ability to establish rapport and maintain respectful interpersonal relationships with individuals, families and groups from a variety of social, emotional, cultural and intellectual backgrounds. 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 with others. Students must continuously self-assess to improve as a professional.

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 MOT program, and must effectively manage these stressors throughout entire workdays.

Evaluation

An applicant/candidate with a handicap 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. Carroll University may require that the applicant/student undergo a physical examination and/or an occupational skills evaluation.

All MOT students must be able to perform the essential functions of a student occupational therapist. Reasonable accommodations will be afforded to students with disabilities as required under the Americans with Disabilities Act of 1990, Sec. 504 of the Rehabilitation Act of 1973, and applicable state laws. A student who can no longer perform the functions of a student occupational therapist must report this to his or her program advisor. If reasonable accommodations cannot be made, the student will not be able to remain in the MOT program.

- Caregiver Background and Criminal History Check

Caregiver Background and Criminal History Check

On October 1, 1998, the State of Wisconsin, Department of Health and Family Services mandated that all persons who seek to be employed and/or licensed in the caregiver industry must fulfill the Caregiver and Background Check requirements in Section 50.065 of the Wisconsin statute. Occupational Therapy students are required to complete a background and criminal history check, which will be facilitated prior to the first day of class and abide by the university and state regulations pertaining to the findings. While this may not prevent admission to our program, it may hinder the ability for placement in clinical rotations. Clinical rotations are a standard requirement of the Accreditation Council for Occupational Therapy Education (ACOTE), and are mandatory to take the board certification exam. In addition, failure to complete this requirement would render the student unable to fulfill requirements for graduation from the MOT program. All healthcare facilities require background checks; therefore, use of this information will be at the discretion of the university and of the clinical sites.

Background checks will be completed through the CastleBranch document management system. Clinical facilities require background checks on all students before participation in clinical rotations. The background check result is shared with the clinical facility.

- Insurance

Insurance

Health: Health insurance for all full time students and international students at Carroll University is mandatory.

Students who choose to may purchase University-sponsored coverage, by logging onto http://www.wpsic.com/waicu/, finding the Carroll plan, and enrolling directly.

All students and faculty are required to obtain and maintain Advanced Cardiac Life Support (ACLS) certification.

Students are required to complete and maintain various health and immunization forms and records. These documents provide information about the student’s health insurance carrier, physician, medical conditions, vaccination history and completion of health risk training. It is the student’s responsibility to update all health information and health-related requirements annually, or more frequently if necessary and as required by clinical sites. Students are highly encouraged to keep a personal file of health information. Any medical treatment needed by an occupational therapy student during academic preparation or clinical education experience is the responsibility of the student. Clinical facilities may require proof of immunizations or additional procedures (lab studies, radiographs, etc.). The student is responsible for the cost of any related procedures.

Professional Liability: Professional students are required to have professional liability insurance. The University arranges for this coverage for each MOT student.

- Master of Occupational Therapy Program Academic Progression Standards

Master of Occupational Therapy Program Academic Progression Standards

All MOT degree program requirements must be completed by the student in 33 months unless permission is otherwise granted by the Director of the MOT Program. Satisfactory progress is contingent upon satisfying the following academic requirements:

1) Academic progression in the MOT program requires a grade of C or better or S in all MOT courses. If a student receives a letter grade of D, F or U he/she is placed on academic probation in the MOT program. In order for a student to be removed from academic probation they are required to repeat the course and obtain a C or better or S before progressing to subsequent courses. When repeating an MOT course, a student may be required to successfully complete ancillary learning experiences or clinical competencies/practicums that validate theoretical knowledge. If a student is unable to take further courses in the next occurring semester as a result of this policy, the student must wait and repeat the course during the next appropriate semester. Due to course sequencing within the program, this will delay the student's graduation date. Students may decelerate to the next cohort only one time. MOT courses may be repeated only one time.
A student must obtain a grade point average of 3.00 or better each semester. If a student earns a semester grade point average between 2.00 to 2.99, he/she is placed on academic probation. To meet academic standards for progression, the student must earn a grade point average of 3.00 or better in the following semester. If a clinical internship course is scheduled during the next semester, the student must earn a satisfactory (S) grade in the clinical internship course to be continued on academic probation. If a student is on academic probation during their final semester in the MOT program, they must earn a grade of S in any clinical internship course' grades of C/S or better and earn a 3.0 GPA or higher to graduate from the program. If this is not obtained students will be dismissed from the MOT program.

Please note that a 3.0 AND S must be earned in the final semester to meet academic progression standards.

**Dismissal from MOT Program:**

If a student does not meet progression standards a second time during his or her tenure in the program, he or she will be dismissed from the program. A student receiving a D, F or U in the same MOT course twice or in two MOT courses is dismissed from the program. If a student earns a semester grade point average of 1.99 or less, he/she will be dismissed from the program.

- Dismissed Graduate Students’ Participation in Commencement
- Master of Occupational Therapy Program Tuition and Financial Aid

**Master of Occupational Therapy Program Tuition and Financial Aid**

**Cost**

The Master of Occupational Therapy Program consists of 86 graduate credits. The estimated cost of tuition for the 2-year program is $63,124 plus a $549/semester program fee.

$734 per credit x 86 credits = $63,124*

*Please note that new tuition and fees amounts are finalized each year, therefore final tuition costs and fees are established by the Carroll University Board of Trustees and are subject to change.

Membership in both the American Occupational Therapy Association and the Wisconsin Occupational Therapy Association is required. Additional expenses include textbooks, personal and living expenses.

Graduate student financial aid is available in the form of loan; Government guaranteed loans (Unsubsidized and Graduate Plus) and private loans. Students who file the FAFSA are eligible to receive government loans regardless of their economic situation. Graduate students can borrow up to $20,500 each year in the Federal Unsubsidized Loan program (or up to their cost of attendance, whichever is lower).

Click for more information regarding financial aid.

- Curriculum

**Curriculum**

The Carroll University Master of Occupational Therapy (MOT) Curriculum has been designed to reflect the mission and philosophy of the Carroll University and the MOT program, as well as align with the philosophical base of the American Occupational Therapy Association (AOTA). In addition, the MOT program emulates the liberal arts heritage of the University by embracing the conviction that humanness is underscored by diversity.

The MOT curriculum incorporates six themes or threads which are built upon throughout the learning experience: occupational performance, service to community, lifelong learning and scholarship, professional development and self-reflection, cultural and client-centered practice, and interprofessional and collaborative care.

Each thread is addressed by courses progressively and with increasing depth as a multi-disciplinary approach offers new perspective and complexity to founding sciences and profession-specific course content and helps to solidify knowledge and understanding as students move through the curricular sequence. Intentional placement of courses within the same semester helps boost comprehension as key concepts are reintroduced from a different vantage point.

- Curriculum and Course Sequencing

**Curriculum and Course Sequence**

- **Year 1 - Summer**

  - OTHS00: Overview of Occupational Therapy Practice (2 hours)
  - OTHS01: Medical Humanities I (2 hours)
  - OTHS02: Human Anatomy (4 hours)
  - AND -OTHS02L: Human Anatomy Laboratory
  - OTHS03: Human Physiology (4 hours)
  - AND -OTHS03L: Human Physiology Laboratory
  - OTHS05: Professional Writing (2 hours)

- **Year 1 - Fall**

  - OTHS04: Medical Humanities II (2 hours)
Master of Occupational Therapy Program

- OTH510: Neuroscience Foundations for Occupational Therapy Practice (4 hours)
- OTH515: Biomechanics, Human Movement and Occupational Performance (3 hours)
  AND -OTH515L: Biomechanics, Human Movement and Occupational Performance Laboratory
- OTH520: Occupations across the Life Span (3 hours)
- OTH521: Introduction to Level I Fieldwork (2 hours)
- OTH530: Theories and Models of Occupational Therapy (3 hours)

Year 1 - Spring

- OTH531: Level I Fieldwork (2 hours)
- OTH550: Evaluation and Assessment in Occupational Therapy (3 hours)
  AND -OTH550L: Evaluation and Assessment in Occupational Therapy Laboratory
- OTH555: Clinical Conditions Affecting Occupational Performance (3 hours)
  AND -OTH555L: Clinical Conditions Affecting Occupational Performance Laboratory
- OTH560: Psychosocial Function and Group Performance (3 hours)
  AND -OTH560L: Psychosocial Function and Group Performance Laboratory
- OTH565: Interventions in Physical Dysfunction (6 hours)
  AND -OTH565L: Interventions in Physical Dysfunction Laboratory

Year 1 - Spring (17 credits)

Year 2 - Summer

- OTH610: Management and Supervision (3 hours)
- OTH621: Advanced Level I Fieldwork (2 hours)
- OTH650: Research I - Evidence Based Practice (4 hours)
- OTH665: Interventions in Pediatric and Developmental Dysfunction (6 hours)
  AND -OTH665L: Interventions in Pediatrics and Developmental Dysfunction Laboratory

Year 2 - Summer (15 credits)

Year 2 - Fall

- OTH670: Fieldwork II - Clinical Internship I (10 hours)

Year 2 - Fall (10 credits)

Year 2 - Spring

- OTH601: Medical Humanities III (1 hours)
- OTH651: Research II (2 hours)
- OTH680: Fieldwork II - Clinical Internship II (10 hours)

Year 2 - Spring (13 credits)

Graduate Courses

The following courses are offered through our Graduate Program.

- OTH500: Overview of Occupational Therapy Practice (2 hours)
- OTH501: Medical Humanities I (2 hours)
- OTH502: Human Anatomy (4 hours)
- OTH503: Human Physiology (4 hours)
- OTH504: Medical Humanities II (2 hours)
- OTH505: Professional Writing (2 hours)
- OTH510: Neuroscience Foundations for Occupational Therapy Practice (4 hours)
- OTH515: Biomechanics, Human Movement and Occupational Performance (3 hours)
- OTH520: Occupations across the Life Span (3 hours)
- OTH521: Introduction to Level I Fieldwork (2 hours)
- OTH530: Theories and Models of Occupational Therapy (3 hours)
- OTH531: Level I Fieldwork (2 hours)
- OTH550: Evaluation and Assessment in Occupational Therapy (3 hours)
- OTH555: Clinical Conditions Affecting Occupational Performance (3 hours)
- OTH560: Psychosocial Function and Group Performance (3 hours)
- OTH565: Interventions in Physical Dysfunction (6 hours)
- OTH601: Medical Humanities III (1 hours)
- OTH610: Management and Supervision (3 hours)
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Physician Assistant Studies Program

Monika Baldridge  Interim Program Director, Associate Professor
Marissa Liveris  Didactic Coordinator, Clinical Assistant Professor
Nicole Papermaster  Clinical Coordinator, Clinical Assistant Professor
Robert Schellinger  Medical Director

Robert Schellinger, DNP, PA-C, FNP, and Associate Professor, is the Medical Director of the Physician Assistant Studies Program at Carroll University. Schellinger also serves as the educational director for the Physician Assistant Master of Science (PA-MS) Program at the University of Wisconsin-Milwaukee. Schellinger received his Bachelor of Science degree in health sciences (pre-health) from the University of Wisconsin-Milwaukee in 2006, and his Physician Assistant degree from the University of Wisconsin-Milwaukee in 2009. He completed his clinical rotation at a healthcare system in southeastern Wisconsin. Schellinger received a Master of Science in Physician Assistant Studies from the University of Wisconsin-Milwaukee in 2016. Schellinger has also been involved in various activities and positions, including serving as the President of the Wisconsin Physician Assistant Organization (WPAO), the Director of Continuing Education for the WPAO, and the President of the Milwaukee Physician Assistant Organization (MPAO). Schellinger is a board-certified physician assistant and a member of the American Academy of Physician Assistants (AAPA). Schellinger has published numerous articles and presented at various conferences and seminars. Schellinger has been recognized for his contributions to the field of physician assistance and has received numerous awards and honors. Schellinger has served as an adjunct professor at the University of Wisconsin-Milwaukee and has taught courses in the Physician Assistant Program. Schellinger has also served as a reviewer and consultant for various organizations and programs. Schellinger is a devoted husband, father, and educator who is passionate about the profession of physician assistance and dedicated to promoting the best interests of patients and the public.

The Bachelor of Science in Physician Assistant Studies program is 24 months in length, requiring 118 credit hours to complete. The first year, Year 1 of curriculum, is 12 months and consists of 66 credit hours of didactic courses and required professional clinical rotations. The second year, Year 2 of curriculum, is 12 months and consists of 52 credit hours of didactic courses, service-learning, and clinical rotations. The philosophy of the curriculum incorporates both traditional and case-based learning concepts and culminates with a capstone project. The curriculum includes core knowledge about the established and evolving biomedical, clinical, and social sciences; health policy and professional practice; and the application of this knowledge to patient care through supervised clinical practice and practice. The curriculum is sufficient breadth and depth to prepare students for clinical practice of medicine and assist students in becoming critical thinkers who can apply the concepts of medical decision making and problem solving. The curriculum is also designed to be responsive to the changing needs of society and the healthcare industry.

The mission of the Master of Science in Physician Assistant Studies Program is to educate physician assistants to provide comprehensive quality health care to all, to be respectful of patient values, to be committed to ethical principles and to be grounded in evidence-based practice and clinical reasoning. Graduates will contribute to the profession and their communities and be prepared to practice medicine in a variety of primary care settings under the supervision of physicians. Graduates will also be prepared to provide service to medically underserved communities and diverse patient populations.

To achieve its mission, the Master of Science Physician Assistant Studies Program has three goals:

1. To develop skilled primary care physician assistants who demonstrate the medical knowledge, skills, and abilities to provide quality patient care for entry level practice as a PA.
2. To develop PAs with a high level of professionalism and interpersonal communication skills.
3. To provide all students with practicum experiences in underserved areas or with underserved populations.

The curriculum includes core knowledge about the established and evolving biomedical, clinical, and social sciences; health policy and professional practice; and the application of this knowledge to patient care through supervised clinical practice and practice. The curriculum is sufficient breadth and depth to prepare students for clinical practice of medicine and assist students in becoming critical thinkers who can apply the concepts of medical decision making and problem solving. The curriculum is also designed to be responsive to the changing needs of society and the healthcare industry.

The philosophy of the curriculum incorporates both traditional and case-based learning concepts and culminates with a capstone project. The curriculum includes core knowledge about the established and evolving biomedical, clinical, and social sciences; health policy and professional practice; and the application of this knowledge to patient care through supervised clinical practice and practice. The curriculum is sufficient breadth and depth to prepare students for clinical practice of medicine and assist students in becoming critical thinkers who can apply the concepts of medical decision making and problem solving. The curriculum is also designed to be responsive to the changing needs of society and the healthcare industry.

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Prerequisite Courses: Please see below for the specific courses required under each discipline.

Any student accepted for admission to the program must have official college transcripts documenting completion of all requirements sent directly to Carroll University 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 PA program.

- Required Prerequisites
  - Biology Sciences - 5 semesters of biology (courses designed for science majors are preferred)
  - Chemistry - 4 semesters of chemistry (courses designed for science majors are preferred)
  - Other courses highly recommended for success in PA education:
    - Pharmacology
    - Epidemiology
    - Medical Terminology
    - Pathophysiology
    - Microbiology

Applicants to the Carroll University PA program may complete no more than two prerequisite courses online. However, online format is not acceptable for anatomy/physiology courses. All prerequisite courses must be completed with a “C” or higher. Note that a “C-” will not be accepted. Applicants are allowed to replace only one prerequisite graded “C” or lower.

AP courses are accepted for general psychology, general biology I, general chemistry I, and statistics. Documentation must be submitted via official college transcript.

Time Limit for Completion of Prerequisite Requirements: Candidates with coursework more than five years old will need to repeat A&P I and II and microbiology. Candidates who have been working in a medical capacity and performing patient assessment must repeat A&P I and II and microbiology if their degree completion was more than 10 years prior to application.

Carroll University will not accept transfer credits for any required course in the Physician Assistant Studies Program. Advanced placement will not be granted for any reason, including prior academic studies or professional experience. Only full-time students are admitted to the program, and all courses within the curriculum are required.

The selection process for the PA Program is highly competitive. Each application is evaluated on individual merits. The submitted materials will be used to evaluate applicants for potential success in the program based on academic performance and potential; knowledge of the PA profession; work, community service and other experiences; letters of reference; and essays. Personal interviews, offered to the most qualified applicants, will aid the committee in assessing a variety of non-cognitive factors, including interpersonal skills, personal maturity, motivation and life experiences. Applicants may not be accepted without a personal interview. Invitations for admission will be extended to applicants who appear to be the most highly qualified to meet the mission and goals of the program. Students will be admitted to the Master of Science in Physician Assistant Studies program based on their admission materials and their interview.

Students need not have received their bachelor’s degree from Carroll University, but those who do will receive additional admission points.

- Technical Standards for Admission to and Progression in the Physician Assistant Studies Program

The Physician Assistant Studies Program requires that a student possess the ability to meet the requirements of the program. Though the program might modify certain course requirements to provide accommodations required by the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1990, there are no substitutes for the following essential skills. The applicant must independently, with or without reasonable accommodation, be able to meet each requirement to gain admission to the program, and must also continue to meet them throughout participation in the program.

1. Physical Requirements: The applicant/student must be willing and capable of performing the customary techniques for physical assessment, such as visual observation, auscultation, percussion and palpation. The applicant must be able to timely perform physician assistant procedures such as suturing, splinting, venous and arterial puncture and cannulation, bladder catheterization, nasogastric tube placement, emergency procedures such as cardiopulmonary resuscitation, suctioning of airway, endotracheal intubation, operation of cardioverter/defibrillator, and application of routine first aid procedures.

2. Communication: The applicant/student must be able to elicit information, describe changes in health, mood and activity, and perceive nonverbal communication. The applicant/student must be able to communicate effectively and sensitively with patients and all members of the health care team.

3. Intellectual Ability: The applicant/student must be competent in problem solving skills, including measurement, calculation, reasoning and analysis.
4. Behavioral and Social Attributes: The applicant/student must be able to tolerate physically taxing workloads, function effectively under stress, adapt to changing environments, display flexibility, learn to function in the face of uncertainties inherent in the evaluation and treatment of patients, and must possess integrity, compassion, effective interpersonal skills and be motivated for a career in health care. The student/applicant must be able to work with patients who have serious illnesses, infectious or terminal diseases and severe emotional disorders.

The Physician Assistant Studies Program requires that the applicant/student undergo a physical examination. Carroll University does not discriminate against qualified applicants or enrolled students with disabilities. These Technical Standards are not intended to deter any candidate or enrolled student for whom reasonable accommodation will allow the fulfillment of the complete curriculum.

Health Insurance Statement:
Physician Assistant students are required to have health insurance, and students can be covered under a family or personal policy. Students without their own coverage may purchase University-sponsored coverage.

- Caregiver Background and Criminal History Check
October 1, 1998, the State of Wisconsin Department of Health and Family Services mandated that all persons who seek to be employed and/or licensed in the caregiver industry must fulfill the caregiver background check requirements in Section 50.065 of the Wisconsin Statute. Prior to the first day of class, students are required to complete a background and criminal history check and abide by university and state regulations pertaining to findings.

- Insurance
Physician Assistant students are required to have health insurance, and students can be covered under a family or personal policy. Students without their own coverage may purchase University-sponsored coverage.

- Academic Progression in Physician Assistant Program

Year 1 / Didactic Academic Progression Standards
A student will be placed on academic probation if he/she fails to meet the following didactic academic progression standards:

1. The students must achieve a letter grade of C or better in all physician assistant year-1 courses. If a student receives a letter grade of D or lower in any physician assistant year-1 course, he/she will be placed on academic probation.
2. The student must also achieve and maintain a minimum cumulative and semester GPA of 3.0 throughout the didactic year or he/she will be placed on academic probation. The student must come off probation during the subsequent full semester of the program (excluding January term and May term.)

To be removed from academic probation the following criteria must be met:

1. The student must repeat the course in which they received a letter grade of D or lower and achieve a minimum letter grade of C in that course the next time it is offered. Due to course sequencing within the program, this will decelerate the student to the next cohort and will delay the student’s graduation date. Students may decelerate only one time.
2. While repeating the course, the student must achieve a C or better in all ancillary and audited learning experiences and assessments regardless of the initial grade received in those courses previously. They must also adhere to all attendance and participation policies with in the program.
3. The student must maintain a cumulative and semester grade point average (GPA) of 3.0 or better. If the student has begun clinical rotations after being placed on academic probation during the last didactic semester, he/she must earn a letter grade of B or better in the first clinical rotation and achieve a cumulative GPA of 3.0 in the following clinical semester.

A student will be dismissed from the program for any of the following:

1. A student who receives a D or an F in any two physician assistant year-1 courses at any point in the didactic year will be dismissed from the program.
2. If a student earns a year-1 cumulative GPA of 1.99 or less in any year-1 semester, he/she will be dismissed from the program.
3. A student may be placed on academic probation only one time during the program. If a student is placed on probation a second time, he/she will be dismissed from the program.

Year 2 / Clinical Academic Progression Standards
A student will be required to repeat a clinical rotation if they fail to meet the following clinical year academic progression standards:

1. Students must receive a grade of C (75% or higher) on the final preceptor evaluation for each clinical rotation. If a student receives less than a grade of C (75% or higher) on any final preceptor evaluation, they will be required to repeat that clinical rotation.
2. If a student is dismissed from a rotation by a preceptor for any cognitive or non-cognitive reason, the dismissal may be considered a failure of that rotation pending review by the Clinical Coordinator and the Program Director regardless of the final grade awarded by the preceptor. A failed rotation must be repeated.
3. Students must pass the EOR examination for each clinical rotation with a C (70% or higher). If a student receives less than a C (70% or lower), they will be required to complete remediation as outlined in the Clinical Manual as facilitated by the PA faculty, and retake the exam within two weeks. If the student passes the repeat examination, he/she will receive a grade of a C (70%) on the examination regardless of the grade achieved on the second examination. If the student receives less than a C (70% or lower) a second time, they must repeat that rotation.

All students required to repeat a clinical rotation must also complete remediation as outlined by the Clinical Coordinator. Repeat rotations will be arranged and scheduled by the Clinical Coordinator at or near the end of the clinical year and may delay the student's graduation pending preceptor availability. All students will be given the final minimum passing grade of a C (70%) for a repeat rotation regardless of the grade achieved during the repeat rotation.

A student will be dismissed from the program for any of the following:

1. A student who receives less than a C (75% or lower) on a repeat rotation's final preceptor evaluation, or is again dismissed from a rotation by the preceptor, will be dismissed from the program.
2. A student who is required to repeat two rotations will be dismissed from the program.
• **Dismissed Graduate Students’ Participation in Commencement**

• **End of Program Standards**

  In addition to successful completion of all required physician assistant courses, students must complete the program Capstone course requirements. The Capstone course consists of four components: the summative comprehensive written examination, summative OSCE, the Capstone project, and Professionalism evaluation. The comprehensive written examination and summative OSCE will be administered at the end of the next to last return to campus day during the second year of the program. The capstone presentation will occur during the spring semester of year-2. If a student (1) fails the summative OSCE, (2) fails a written comprehensive examination or (3) receives a grade of D or F on the capstone, or(4) fails to “meet expectations” on the 2nd year Spring Professionalism Evaluation, successful remediation (as determined by the faculty) must occur prior to graduation. If the student fails to successfully complete remediation, the student will be dismissed from the program.

  All Master of Science in Physician Assistant Studies program requirements must be completed in 24 months unless permission is otherwise granted by the Director of the Physician Assistant Program.

  At the end of each grading period the Health Science Academic Progress Committee (HSAPC) will meet to review the academic status of every student in the physician assistant program and ensure that all students meet the requirements necessary for progression. The committee will consider the PA program progression standards and will make decisions within the context of the academic progression standards above. The committee is composed of the PA Program Director, the Department of Health and Medicine Chair, the Dean of the College of Health Sciences, the Chair of Physical Therapy, and the Directors and Chairs from Athletic Training, Exercise Physiology, Occupational Therapy, and Nursing. The purpose of the Health Science Academic Progress Committee is to ensure that every student of the Carroll University PA program has the skills, knowledge, and judgment to assume the responsibilities of a physician assistant. Students with deficiencies will be notified by the Office of the Registrar within 10 business days after grades are submitted and will meet with the PA Student Progress Committee (SPC) composed of the core PA program faculty and the PA Program Director.

• **Appeals Process**

  The Academic Steering Committee acts as the appeal body for questions related to academic progression, academic policy, probation or dismissal, etc. The Student/Faculty Ethics committee acts as the appeal body for questions related to grades, integrity, and professionalism. A student wishing to appeal decisions by the HSAPC or SPC must follow the process indicated in the Carroll University Student Handbook.

• **Policy on Readmission to the Program**

  The Policy on Readmission defines the process by which students may seek to be readmitted to the program following dismissal of the student from the program. Readmission candidates may apply for readmission to the program no sooner than eight months and no later than three years from the date of dismissal. Readmission candidates must exercise this option only once. Readmission candidates 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 they will succeed academically, technically, and professionally in the program must accompany the application materials.

  Upon review of the materials, the PA admission committee will render one of the following decisions: 1) Approval of the request for readmission to the program with the academic condition that the readmission applicant repeat the entire academic program or 2) denial of the request for readmission to the program.

  The decision of this committee is final.

• **Grade Appeals**

  Students and faculty should make every effort to resolve questions about grades without seeking a formal grade appeal. Students should seek a formal grade appeal only as a last resort.

  All students who seek to appeal the assignment of a grade should understand that the evaluation of the extent of course mastery is normally within the province of the instructor for a particular course. Absent extraordinary circumstances, no grade adjustments or changes will be initiated. Therefore, students should make every effort to resolve questions without seeking a formal grade appeal.

  Students may seek to appeal final course grades only if there is a valid basis to do so, supported by compelling documentation to show that the assignment of a grade was incorrect or was contrary to established Carroll University academic policies and procedures. Accordingly, appropriate grounds for grade appeals may include:

  • A clerical error in the assignment of a final grade;
  • The assignment of a grade on some basis other than the student’s performance and participation in the course;
  • The evaluation of the student’s work by using criteria that is unnecessarily different from that used to evaluate other students in the same class;
  • The assignment of a grade that reflects a significant departure from the instructor’s published or announced standards for assigning grades.

  The responsibility for developing and presenting the case for a grade change rests with the student making the appeal. Further, no appeal shall be received by Student/Faculty Ethics Committee absent evidence that the student attempted to address and/or resolve the matter individually with the faculty member responsible for assigning the grade at issue.

  All grade appeals must be submitted, in writing, to the Student/Faculty Ethics Committee within the first three weeks of the academic semester immediately following the term in which the course was taken. A written statement clearly identifying the basis for the appeal must be submitted by the student, along with the following documentation: All assignments/project grades, test/quiz results, instructor comments and assessments related to the course/grade in question.

  Once submitted, the Student/Faculty Ethics Committee shall meet to review the student’s written statement and supporting documentation. The committee retains the discretion to consult with the faculty member who issued the grade to receive further information. The committee’s written recommendation for resolution of the matter will be issued within ten school days of its receipt of the appeal. This recommendation shall be forwarded to the student, faculty member and PA Program Director.

  If the student seeks further review, the written basis for such a review, along with the supporting documentation, must be forwarded to Carroll University Provost within ten school days of the issuance of the Student/Faculty Ethics Committee recommendation. Review of the matter and the issuance of a decision by the Provost shall be final.

• **Student Academic Integrity and Professionalism**

  All acts of academic misconduct are serious and in fact subvert the very nature of the academic process. Given the central role of academic integrity to all academic pursuits, the Student/Faculty Ethics Committee will review every incident of alleged academic misconduct. Should they be accused of misconduct, students will be subject to fair application of the Policies and Procedures on Student Academic Integrity.
Academic misconduct violations include: committing plagiarism, fabricating or changing data or clinical logs, forging or falsifying academic documents or records, intentionally impeding or damaging the academic work of others, illicitly or maliciously accessing, altering, copying, using or damaging computer software or files, or any other academic violation of the Information Technology Acceptable Use Policy as stated in the Student Handbook.

For cases of academic misconduct in a particular academic course, the instructor of that course assigns an appropriate course sanction and the case is forwarded to the Student/Faculty Ethics Committee to consider the sanction, including program probation or dismissal.

- **Fees and Financial Aid**

  Graduate tuition for the Physician Assistant Studies Program is $34,138.50 average per year plus $1341 for fees for the 2017-2018 Academic Year.

  The total program costs for students in the 2017-2018 Master of Physician Assistant Studies Program will be approximately $68,277.

  Note that while the year-1 program costs are finalized, the year-2 costs are yet to be established by the Carroll University Board of Trustees and are subject to change, which will change the total program cost.

- **Additional Equipment and Related Costs**

  | Medical Equipment | $1,200.00* |
  | Uniforms          | $120.00    |
  | Books (didactic and clinical years) | $2,400.00 |
  | AAPA dues (highly recommended) | $75.00    |
  | WAPA dues (highly recommended) | $20.00    |
  | Drug screen       | $100.00/year*** |
  | Clinical Rotation Tracking System | $80.00    |
  | BLS/ACLS training | $265.00    |

  * Depending on specific models chosen
  **Depending on the facility

  Financial aid is available in the form of loans. Additional information is available from the financial aid office.

- **Licensure**

  Students are responsible for determining the requirements of physician assistant licensure and completing application requirements for the state in which they expect to be licensed.

- **Curriculum**

  The curriculum includes core knowledge about the established and evolving biomedical, clinical preparatory, behavioral and social sciences; informational literacy; health policy and professional practice; and the application of this knowledge to patient care through supervised clinical practice and practicums. The curriculum is of sufficient breadth and depth to prepare students for clinical practice of medicine and assist students in becoming critical thinkers who can apply the concepts of medical decision-making and problem solving. Building on Carroll University's health sciences area commitment to provide service to culturally diverse populations, there is emphasis on primary care, cultural competency and Hispanic health care.

  The philosophy of the curriculum incorporates both traditional and case-based learning concepts and culminates with a capstone experience. A systems-based curriculum model integrates knowledge, provision of services and reflection. Common themes across the curriculum include ethical inquiry and practice, professionalism, scientific inquiry, critical thinking, problem-solving, decision-making as incorporated into the clinical practice and clinical research models, the presentation of content across the lifespan, and exploration of the effects of gender, culture and cognitive level on content. There is collaborative teaching across courses with planned redundancy of subject matter. Constant reinforcement of content with clinical experiences occurs through observations of and exposure to patients in academic courses, service-learning and clinical rotations. The students learn in an interdisciplinary health care and graduate environment that promotes interdisciplinary clinical practice and lifelong learning.

  The Carroll University Master of Science in Physician Assistant Studies program is a post-baccalaureate program divided into one year of course work with supervised clinical practicums, followed by one year of clinical rotations. The program begins June 4 and runs full time for two years. The supervised clinical practicums in the first year provide students with hands-on patient/client experience that allows students to integrate classroom learning with practical and clinical applications while providing service to the community. The practicum courses help students develop clinical skills, and emphasize wellness and prevention across the lifespan. Students participate in 12 months of full-time clinical rotations in the areas of Family Practice, Internal Medicine, Emergency Medicine, Obstetrics and Gynecology, Psychiatry, Pediatrics and General Surgery in the second year. An additional six-week elective will be taken in either a medical or surgical subspecialty area. Clinical education experiences occur off campus, and students must secure appropriate transportation. International physician assistant clinical experiences are available to students.

  Due to the academic rigor and demands of clinical rotations throughout the Master of Science in Physician Assistant Studies program, students are highly encouraged not to work during their first and second years. Additionally, students are not allowed to work on campus within the physician assistant program at any time during their first or second year.

- **Master of Science in Physician Assistant Studies: 118 Credits**

  - **Curriculum: Graduate Year 1**

    Year 1 total credits: 66 credits

    - Summer - 18 credits
      - PHAS50: Human Gross Anatomy (6 hours)
      - PHAS50L: Human Gross Anatomy Laboratory
      - PHAS51: Medical Physiology (4 hours)
      - PHAS52: Patient Assessment-History and Physical Exam (4 hours)
      - PHAS52L: Patient Assessment-History and Physical Exam Laboratory
      - PHAS53: Intro to Physician Assistant Profession (1 hours)
      - PHAS54: Intro to Clinical Medicine (2 hours)
      - PHAS55: Foundations of Cultural Competence and Health Disparities I (1 hours)
      - Fall - 20 credits
        - PHAS55: Clinical Medicine I (5 hours)

    Additional Equipment and Related Costs

    | Medical Equipment | $1,200.00* |
    | Uniforms          | $120.00    |
    | Books (didactic and clinical years) | $2,400.00 |
    | AAPA dues (highly recommended) | $75.00    |
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  The curriculum includes core knowledge about the established and evolving biomedical, clinical preparatory, behavioral and social sciences; informational literacy; health policy and professional practice; and the application of this knowledge to patient care through supervised clinical practice and practicums. The curriculum is of sufficient breadth and depth to prepare students for clinical practice of medicine and assist students in becoming critical thinkers who can apply the concepts of medical decision-making and problem solving. Building on Carroll University's health sciences area commitment to provide service to culturally diverse populations, there is emphasis on primary care, cultural competency and Hispanic health care.

  The philosophy of the curriculum incorporates both traditional and case-based learning concepts and culminates with a capstone experience. A systems-based curriculum model integrates knowledge, provision of services and reflection. Common themes across the curriculum include ethical inquiry and practice, professionalism, scientific inquiry, critical thinking, problem-solving, decision-making as incorporated into the clinical practice and clinical research models, the presentation of content across the lifespan, and exploration of the effects of gender, culture and cognitive level on content. There is collaborative teaching across courses with planned redundancy of subject matter. Constant reinforcement of content with clinical experiences occurs through observations of and exposure to patients in academic courses, service-learning and clinical rotations. The students learn in an interdisciplinary health care and graduate environment that promotes interdisciplinary clinical practice and lifelong learning.

  The Carroll University Master of Science in Physician Assistant Studies program is a post-baccalaureate program divided into one year of course work with supervised clinical practicums, followed by one year of clinical rotations. The program begins June 4 and runs full time for two years. The supervised clinical practicums in the first year provide students with hands-on patient/client experience that allows students to integrate classroom learning with practical and clinical applications while providing service to the community. The practicum courses help students develop clinical skills, and emphasize wellness and prevention across the lifespan. Students participate in 12 months of full-time clinical rotations in the areas of Family Practice, Internal Medicine, Emergency Medicine, Obstetrics and Gynecology, Psychiatry, Pediatrics and General Surgery in the second year. An additional six-week elective will be taken in either a medical or surgical subspecialty area. Clinical education experiences occur off campus, and students must secure appropriate transportation. International physician assistant clinical experiences are available to students.

  Due to the academic rigor and demands of clinical rotations throughout the Master of Science in Physician Assistant Studies program, students are highly encouraged not to work during their first and second years. Additionally, students are not allowed to work on campus within the physician assistant program at any time during their first or second year.

- **Master of Science in Physician Assistant Studies: 118 Credits**

  - **Curriculum: Graduate Year 1**

    Year 1 total credits: 66 credits

    - Summer - 18 credits
      - PHAS50: Human Gross Anatomy (6 hours)
      - PHAS50L: Human Gross Anatomy Laboratory
      - PHAS51: Medical Physiology (4 hours)
      - PHAS52: Patient Assessment-History and Physical Exam (4 hours)
      - PHAS52L: Patient Assessment-History and Physical Exam Laboratory
      - PHAS53: Intro to Physician Assistant Profession (1 hours)
      - PHAS54: Intro to Clinical Medicine (2 hours)
      - PHAS55: Foundations of Cultural Competence and Health Disparities I (1 hours)
      - Fall - 20 credits
        - PHAS55: Clinical Medicine I (5 hours)
PHAS07: Pharmacotherapy and Pathophysiology I (4 hours)
PHAS09: Clinical Diagnostics I (2 hours)
PHAS11: Behavioral Medicine (2 hours)
PHAS17: Pediatrics (2 hours)
AND -PHAS17L: Pediatrics Laboratory
PHAS19: OB/Gyn (2 hours)
AND -PHAS19L: OB/Gyn Laboratory
PHAS21: Clinical Decision Making I (2 hours)
AND -PHAS21L: Clinical Decision Making I Laboratory
PHAS24: Foundations of Cultural Competence and Health Disparities II (1 hours)

Winter - 4 credits
PHAS12: Healthcare Systems, Health Policy and Administration (1 hours)
PHAS14: Medical Ethics (2 hours)
PHAS18: Geriatrics (1 hours)

Spring - 21 credits
PHAS06: Clinical Medicine II (5 hours)
PHAS08: Pharmacotherapy and Pathophysiology II (4 hours)
PHAS10: Clinical Diagnostics II (2 hours)
PHAS16: Emergency Medicine (4 hours)
PHAS20: Surgery (3 hours)
PHAS22: Clinical Decision Making II (2 hours)
AND -PHAS22L: Clinical Decision Making II Laboratory
PHAS25: Foundations of Cultural Competence and Health Disparities III (1 hours)

May - 3 credits
PHAS13: Evidence Based Medicine and Research (2 hours)
PHAS15: Clinical Procedures (1 hours)

Curriculum: Graduate Year 2 (Year 2 total credits: 52)

Required Clinical Rotations
PHAS60: Emergency Medicine Supervised Clinical Practice (8 hours)
PHAS61: Family Medicine Supervised Clinical Practice (8 hours)
PHAS62: General Internal Medicine Supervised Clinical Practice (8 hours)
PHAS63: General Surgery Supervised Clinical Practice (8 hours)
PHAS65: Pediatrics Supervised Clinical Practice (4 hours)
PHAS66: Women's Health and Prenatal Care Supervised Clinical Practice (4 hours)
PHAS67: Behavioral Medicine Supervised Practice (4 hours)
PHAS68: Elective Supervised Clinical Practice (4 hours)

Required Capstone
PHAS30: Capstone (4 hours)

Graduate Courses

The following courses are offered through our Graduate Program.

PHAS00: Human Gross Anatomy (6 hours)
PHAS00L: Human Gross Anatomy Laboratory
PHAS01: Medical Physiology (4 hours)
PHAS02: Patient Assessment-History and Physical Exam (4 hours)
PHAS02L: Patient Assessment-History and Physical Exam Laboratory
PHAS03: Intro to Physician Assistant Profession (1 hours)
PHAS04: Intro to Clinical Medicine (2 hours)
PHAS05: Clinical Medicine I (5 hours)
PHAS06: Clinical Medicine II (5 hours)
PHAS07: Pharmacotherapy and Pathophysiology I (4 hours)
PHAS08: Pharmacotherapy and Pathophysiology II (4 hours)
PHAS09: Clinical Diagnostics I (2 hours)
PHAS10: Clinical Diagnostics II (2 hours)
PHAS11: Behavioral Medicine (2 hours)
PHAS12: Healthcare Systems, Health Policy and Administration (1 hours)
PHAS13: Evidence Based Medicine and Research (2 hours)
PHAS14: Medical Ethics (2 hours)
PHAS15: Clinical Procedures (1 hours)
PHAS16: Emergency Medicine (4 hours)
PHAS17: Pediatrics (2 hours)
PHAS17L: Pediatrics Laboratory
PHAS18: Geriatrics (1 hours)
PHAS19: OB/Gyn (2 hours)
PHAS19L: OB/Gyn Laboratory
PHAS20: Surgery (3 hours)
PHAS21: Clinical Decision Making I (2 hours)
PHAS21L: Clinical Decision Making I Laboratory
PHAS22: Clinical Decision Making II (2 hours)
PHAS22L: Clinical Decision Making II Laboratory
PHAS23: Foundations of Cultural Competence and Health Disparities I (1 hours)
PHAS24: Foundations of Cultural Competence and Health Disparities II (1 hours)
PHAS25: Foundations of Cultural Competence and Health Disparities III (1 hours)
PHAS26: Emergency Medicine Supervised Clinical Practice (8 hours)
PHAS27: Family Medicine Supervised Clinical Practice (8 hours)
PHAS28: General Internal Medicine Supervised Clinical Practice (8 hours)
PHAS29: General Surgery Supervised Clinical Practice (8 hours)
PHAS30: Pediatrics Supervised Clinical Practice (4 hours)
PHAS31: Women's Health and Prenatal Care Supervised Clinical Practice (4 hours)
PHAS32: Behavioral Medicine Supervised Practice (4 hours)
PHAS33: Elective Supervised Clinical Practice (4 hours)
PHAS34: Capstone (4 hours)
Master of Software Engineering

Chenglie Hu

Professor and Director, Master of Software Engineering

Michael G. Konemann

Associate Professor

Marie S. Schwerm

Lecturer

Carroll University offers a master’s degree and a graduate certificate program in software engineering. These programs are based on the assumption that professionals must remain current within the rapidly changing environment of information technology. The program uses real-world business projects and scenarios to educate professionals in the latest software development methodologies and practices.

The current coursework is based on these subject areas:
- Advanced Programming Skills
- Software Engineering Methodologies and Techniques
- Multi-Paradigm Design and Implementation
- Relational and Object Oriented Database Models and Implementation
- Network and Client/Server Technologies and Techniques
- J2EE and .NET Frameworks
- Software Project and Team Management
- Advanced software engineering knowledge areas

The software engineering program provides a graduate education that deepens and broadens the student’s expertise, technical and management skills, and industry understanding. It maintains a balance between abstract, theoretical insights and their application. The program is faithful to the mission of Carroll University, which focuses on life-long learning, career preparation, and education for productive and meaningful lives.

All courses in the curriculum are based in current software development trend and technology but look towards the future. A particular technology is of value only if it is used as a tool for solving a current workplace related problem. Since future developments will soon make current solutions obsolete, the curriculum must provide experience and develop a knowledge base that will facilitate continuous learning. Upon completion of the Master of Software Engineering program, graduates are able to:

1. Apply sound software engineering principles and methodologies in any software development process regardless of roles they may play as software developers, development leads, or software project managers.
2. Problem-solve (mostly for business problems) at a higher level using enterprise resources, major Web software development frameworks, and sound software design methodologies.
3. Be competitive in making sound judgment on any IT issues that are related to software development.
4. Meet challenges of a software development process as information technologies advance.
5. Be self-motivated and highly effective players in any team environment.

- Master of Software Engineering

The Master of Software Engineering (MSE) is a 36-credit program, which is based on a model that emphasizes object-orientation, multi-tier data-driven development, and sound software engineering and design methodologies. The program has been approved by the Higher Education Learning Commission (HLC)/North Central Association. The 36 credits consist of the following 10 three-credit courses:

- CSC506: Object Oriented Programming and Data Structures (3 hours)
- CSC550: Advanced Web Applications (3 hours)
- CSC560: Advanced Web Applications II (3 hours)
- CSC591: Enterprise Data Modeling (3 hours)
- CSC600: Object Oriented Analysis and Design (3 hours)
- CSC602: Software Project Management (3 hours)
- CSC640: Software Engineering (3 hours)
- CSC643: Advanced Topics in Software Engineering (3 hours)
- CSC650: Capstone I (3 hours)
- CSC651: Capstone II (3 hours)
- Elective Course
  - CSC680: Software Engineering Internship (1 TO 4 hours)

Plus two graduate level computer science elective courses

Software Engineering Internship

Students who did not have software development professional experience are encouraged to take internship course (CSC680) to gain some exposure to real-world software development. One of the required elective courses can be CSC680 (Software Engineering Internship). However, student must have completed 18 credit hours to be eligible for taking CSC680. International students can also take the internship course guided by the Curriculum Practical Training (CPT) Policies of the federal immigration regulations. Student can work full time during summer months. However, student must consult with Office of International Education about his/her eligibility and required procedure before he/she can register for the course.

- Scheduling

Several different courses will be offered fall, spring, and summer semesters. Since the program is specifically oriented toward working professionals, classes may be offered in a hybrid format, that is, courses will meet...
periodically in a synchronous in-class mode with additional asynchronous components, as well as online format (noted at end of course description as WW). By taking only one class each semester, students may earn the graduate certificate in less than two years. Students may elect to complete two courses a semester and earn the certificate in less than one year.

- Admission

Requirements for admission into the Master of Software Engineering program include the following:

1. Earned bachelor’s degree with a suggested cumulative GPA of 2.75 or higher.
2. Completed Graduate Studies On-line Application for the Master of Software Engineering Program.
3. Official transcripts from all post-secondary institutions attended.
   1. If academic work is from outside the U.S. an official report from WES or ECE is also required.
4. Résumé that describes work experience, computer programming background, and professional interests.
5. If the applicant's native language is not English, the candidate must show proof of English proficiency. Please reference the English proficiency requirements HERE.
6. Letter of recommendation (professional reference preferred if the applicant has professional work experience).
7. Completed Statement of Financial Support and Bank Statement if candidate requires a student (F1) or exchange scholar visa (J1).

Additional factors that may impact admission decisions:

1. Applicants, regardless of their undergraduate majors, must possess reasonable programming skills equivalent to those gained in a Data Structures course of a typical Computer Science program. In particular, descent Java language knowledge and programming skills are expected. When deemed necessary, students with no programming background or insufficient programming knowledge and skills may be required to take one or more undergraduate Computer Science courses at Carroll University.
2. If applicant's undergraduate major is not in a computing related field, having computing or information technology professional work experience (typically two years or more) will be viewed favorably in making admission decisions.

- Fees

Tuition for graduate courses in software engineering for 2017-18 is $704 per credit and the program fee is $110 per semester.

- Dismissed Graduate Students' Participation in Commencement

- Graduate Courses

The following courses are offered through our Graduate Program.

- CSC506: Object Oriented Programming and Data Structures (3 hours)
- CSC543: Mobile Application Development I (3 hours)
- CSC544: Mobile Application Development II (3 hours)
- CSC550: Advanced Web Applications (3 hours)
- CSC560: Advanced Web Applications II (3 hours)
- CSC591: Enterprise Data Modeling (3 hours)
- CSC600: Object Oriented Analysis and Design (3 hours)
- CSC602: Software Project Management (3 hours)
- CSC603: Networking - Design and Implementation (3 hours)
- CSC605: Mathematical Underpinnings of Information Systems (3 hours)
- CSC610: Operating Systems (3 hours)
- CSC621: Algorithms (3 hours)
- CSC623: Programming Languages (3 hours)
- CSC640: Software Engineering (3 hours)
- CSC641: Advanced Visual Basic (3 hours)
- CSC642: Visual C++ (3 hours)
- CSC643: Advanced Topics in Software Engineering (3 hours)
- CSC650: Capstone I (3 hours)
- CSC651: Capstone II (3 hours)
- CSC660: Component Software & Implementation Issues (3 hours)
- CSC680: Software Engineering Internship (1 TO 4 hours)
- CSC691: Special Topics (3 hours)
Course Descriptions

- Entry-Level Doctor of Physical Therapy Program
  - PTH400: Foundations of Professional Practice (3 hours)
  - PTH401: Biomechanics (3 hours)
  - PTH402: Neuroscience (3 hours)
  - PTH403: Exercise Physiology (3 hours)
  - PTH406: Introduction to Patient Management (3 hours)
  - PTH407: Orthopedics I (2 hours)
  - PTH502: Advanced Patient Management (3 hours)
  - PTH503: Motor Control (4 hours)
  - PTH504: Orthopedics II (3 hours)
  - PTH505: Advanced Kinesiology (4 hours)
  - PTH506: Therapeutic Exercise (4 hours)
  - PTH498: Independent Study (1-3 hours)
  - PTH500: Physical Agents (4 hours)
  - PTH501: Advanced Patient Management (3 hours)
  - PTH502: Motor Control (4 hours)
  - PTH503: Orthopedics II (3 hours)
  - PTH504: Advanced Kinesiology (4 hours)
  - PTH505: Therapeutic Exercise (4 hours)
  - PTH506: Independent Study (1-3 hours)

- Graduate Courses in Education
  - EDU601: Educators as Researchers (RC) (3 hours)
  - EDU602: Framing and Researching the Problem (RC) (3 hours)
  - EDU603: Research Design, Data Collection, Analysis (RC) (3 hours)
  - EDU604: Thesis Preparation (RC) (3 hours)
  - EDU605: Learning Community Theory and Practice (3 hours)
  - EDU606: Classroom as Community (3 hours)
  - EDU607: Educational Research II (3 hours)
  - EDU608: Educational Leadership Theory and Practice (3 hours)
  - EDU609: Educational Leadership Theory and Practice III (3 hours)
  - EDU610: Cultural Relevance in Teaching (3 hours)
  - EDU611: Authentic Learning and Assessment (3 hours)
  - EDU612: Educational Leadership Theory and Practice (3 hours)
  - EDU613: Educational Leadership Theory and Practice III (3 hours)
  - EDU614: Educational Leadership Theory and Practice IV (3 hours)
  - EDU615: Educational Leadership Theory and Practice V (3 hours)
  - EDU616: Educational Leadership Theory and Practice VI (3 hours)
  - EDU617: Educators as Leaders (3 hours)
  - EDU618: Educational Research IV (3 hours)
  - EDU619: Numbers and Operations: K-5 Mathematical Tasks (3 hours)
  - EDU620: Writing Across the Curriculum: Leadership Institute (3 hours)
  - EDU621: Writing Project Practicum (3 hours)
  - EDU622: The Zen of Collegial Studies (1 hours)
  - EDU623: Teaching the Writing Process (3 hours)
  - EDU624: Teacher as Writer-Facilitating Better Student Writing (3 hours)
  - EDU625: Algebraic Reasoning: K-5 Discourse and Questioning (3 hours)
  - EDU626: Measurement and Data: K-5 Equity and Technology (3 hours)
  - EDU627: Geometry and Spatial Reasoning: K-5 Assessment (3 hours)
  - EDU628: Identifying Obstacles to Rational Thought to Enhance Advocacy for Self and Others (3 hours)
  - EDU629: Foundations of Gifted and Talented Education (3 hours)
  - EDU630: Teaching & Learning Across the Life Span (CCI; ACE; HED) (3 hours)
  - EDU631: Mathematics Across the Life Span (CCI; ACE; HED) (3 hours)
  - EDU632: Applying Educational Technology in K-12 Classrooms (CCI-C) (3 hours)
  - EDU633: Curriculum Making - Past and Present (CCI-C) (3 hours)
  - EDU634: Education of Gifted & Talented Students - Workshop (CCI-C) (3 hours)
EDU645: Collaboration in the Classroom (ACE) (3 hours)
EDU646: Administration of Adult Education Programs (ACE) (3 hours)
EDU647: Foundations of Adult Education (ACE) (3 hours)
EDU648: Facilitating Learning for Adults/The Adult as Independent Learner (ACE) (3 hours)
EDU649: Curriculum and Program Development in Adult and Continuing Education (ACE) (3 hours)
EDU650: Sociology of Education (C-IS) (3 hours)
EDU652: Culturally Responsive Teaching Practice (S-CI) (3 hours)
EDU653: Rethinking At Risk* Students - Creating Promise (S-CI) * (3 hours)
EDU654: Developing Multicultural and Global Curricula (C&I-S) (3 hours)
EDU655: Families in Society (CCI; S-CI) (3 hours)
EDU656: Career Guidance and Counseling through the Adult Lifespan (3 hours)
EDU657: Pedagogy for Alternative Learning Environments (S-CI) (3 hours)
EDU658: Philosophical/Ethical Issues in Education (S-CI) (3 hours)
EDU660: Strategies for Diagnostic Assessment (3 hours)
EDU661: Language Development/Disorders of the Exceptional Child (3 hours)
EDU662: Instructional Strategies for Students with Special Needs (3 hours)
EDU663: Serving Students Beyond the Classroom (3 hours)
EDU664: Field Experience in Adaptive Education (1 hours)
EDU669: School Leadership Practicum II (1 hours)
EDU671: Understanding Self, Race, Class and Gender to Leverage Student Achievement (3 hours)
EDU672: Literacy Program Evaluation and Implementation (3 hours)
EDU673: Leadership in Literacy (3 hours)
EDU674: Literacy in the Secondary School Content Areas (3 hours)
EDU675: Emergent Literacy (3 hours)
EDU676: Literacy in the Middle Childhood Grades (3 hours)
EDU677: Issues in Children's and Adolescent Literature (3 hours)
EDU679: Literacy Leadership Practicum (3 hours)
EDU678: Reading Assessment in the K-12 Classroom (3 hours)
EDU680: Practicum in Assessing and Teaching Reading (3 hours)
EDU682: Supervision of Student Teachers- Theory and Practice
EDU683: Graduate Internship in Education (1 TO 3 hours)
EDU689: Foundations of Community and Equity (3 hours)
EDU690: Civic Engagement (3 hours)
EDU691: Graduate Special Topics (1 TO 3 hours)
EDU692: Learners and Learning in a Personalized Environment (3 hours)
EDU693: Educators as Agents of Change (3 hours)
EDU694: Facilitating in a Personalized Learning Environment (3 hours)
EDU695: Evaluating Personalized Learning (3 hours)
EDU696: Collaborating in a Personalized Environment (3 hours)
EDU697: Leadership and Advocacy (3 hours)
EDU698: Independent Study (1 TO 3 hours)
HED606: Statistical Methods for the Health Sciences (3 hours)
HED607: Graduate Professional Project in Community Health Education I (3 hours)
HED608: Graduate Professional Project in Community Health Education II (3 hours)
HED650: Thyr & Foundations of Health Education (3 hours)
HED651: Planning and Implementation of Health Education Programs (HED) (3 hours)
HED652: Eval & Assessment of Health Education Programs (3 hours)
HED653: Princ of Health Behavior (HED) (3 hours)
HED660: Epidemiology and Public Health Issues (HE) (3 hours)
HED661: Resources for Health Education (3 hours)
HED663: Public Health Policy and Administration (3 hours)

Master of Business Administration

BUS580: Information Tech Management (3 hours)
BUS600: Managerial Economics (3 hours)
BUS605: Marketing Management (3 hours)
BUS610: Quantitative Decision Making (3 hours)
BUS615: Current Topics in Business Law (3 hours)
BUS620: Advanced Managerial Accounting (3 hours)
BUS625: Leading and Managing in a Changing Environment (3 hours)
BUS630: Business and Ethical Decision Making (3 hours)
BUS640: Advanced Financial Decision Making (3 hours)
BUS650: Business Policy and Strategy (3 hours)

Master of Exercise Physiology

EXP500: Advanced Strength and Conditioning I (3 hours)
EXP501: Advanced Cardiac Life Support (ACLS) (1 hours)
EXP503: Advanced Exercise Physiology (3 hours)
EXP504: Advanced Assessment of Physical Performance (4 hours)
EXP505: Laboratory Methods I (2 hours)
EXP510: Advanced Exercise Testing and Prescription (3 hours)
EXP511: Cardiopulmonary Testing (2 hours)
EXP512: Electrocardiography (2 hours)
EXP513: Advanced Electrocardiography (2 hours)
EXP516: Exercise Testing and Prescription for Clinical Populations (3 hours)
EXP517: Laboratory Methods II (2 hours)
EXP520: Client-centered Clinical Practice in Exercise Physiology (4 hours)
EXP521: Exercise and Sports Psychology (4 hours)
EXP522: Sport Biomechanics (4 hours)
EXP520: Pathophysiology (3 hours)
EXP529: Internship I (3 hours)
EXP530: Practicum I (4 hours)
EXP581: Internship II (4 hours)
EXP582: Internship III (4 hours)
- **EXP590: Practicum II (4 hours)**
- **EXP591: Advanced Strength and Conditioning II (3 hours)**
- **EXP600: Practicum III (3 hours)**
- **EXP601: Internship IV (3 hours)**
- **EXP602: Adv. Sport Nutrition Assessment & Prescription (3 hours)**
- **EXP607: Graduate Research Project I (3 hours)**
- **EXP608: Graduate Research Project II (1-3 hours)**
- **EXP610: Practicum IV (4 hours)**
- **EXP615: Concepts in Functional Rehabilitation (2 hours)**
- **EXP620: Entrepreneurism in Health and Fitness (2 hours)**
- **EXP692: Current Topics in Strength and Conditioning (2 hours)**
- **EXP695: Injury Prevention and Rehabilitation (3 hours)**

- **Master of Occupational Therapy**
  - **OTH500: Overview of Occupational Therapy Practice (2 hours)**
  - **OTH501: Medical Humanities I (2 hours)**
  - **OTH502: Human Anatomy (4 hours)**
  - **OTH503: Human Physiology (4 hours)**
  - **OTH504: Medical Humanities II (2 hours)**
  - **OTH505: Professional Writing (2 hours)**
  - **OTH510: Neuroscience Foundations for Occupational Therapy Practice (4 hours)**
  - **OTH515: Biomechanics, Human Movement and Occupational Performance (3 hours)**
  - **OTH520: Occupations across the Life Span (3 hours)**
  - **OTH521: Introduction to Level I Fieldwork (2 hours)**
  - **OTH530: Theories and Models of Occupational Therapy (3 hours)**
  - **OTH531: Level I Fieldwork (2 hours)**
  - **OTH550: Evaluation and Assessment in Occupational Therapy (3 hours)**
  - **OTH555: Clinical Conditions Affecting Occupational Performance (3 hours)**
  - **OTH560: Psychosocial Function and Group Performance (3 hours)**
  - **OTH565: Interventions in Physical Dysfunction (6 hours)**
  - **OTH601: Medical Humanities III (1 hours)**
  - **OTH610: Management and Supervision (3 hours)**
  - **OTH621: Advanced Level I Fieldwork (2 hours)**
  - **OTH650: Research I - Evidence Based Practice (4 hours)**
  - **OTH651: Research II (2 hours)**
  - **OTH655: Interventions in Pediatric and Developmental Dysfunction (6 hours)**
  - **OTH670: Fieldwork II - Clinical Internship I (10 hours)**
  - **OTH680: Fieldwork II - Clinical Internship II (10 hours)**

- **Master of Physician Assistant Studies Program**
  - **PHA500: Human Gross Anatomy (6 hours)**
  - **PHA501: Medical Physiology (4 hours)**
  - **PHA502: Patient Assessment-History and Physical Exam (4 hours)**
  - **PHA503: Intro to Physician Assistant Profession (1 hours)**
  - **PHA504: Intro to Clinical Medicine (2 hours)**
  - **PHA505: Clinical Medicine I (5 hours)**
  - **PHA506: Clinical Medicine II (9 hours)**
  - **PHA507: Pharmacotherapy and Pathophysiology I (4 hours)**
  - **PHA508: Pharmacotherapy and Pathophysiology II (4 hours)**
  - **PHA509: Clinical Diagnostics I (2 hours)**
  - **PHA510: Clinical Diagnostics II (2 hours)**
  - **PHA511: Behavioral Medicine (2 hours)**
  - **PHA512: Healthcare Systems, Health Policy and Administration (1 hours)**
  - **PHA513: Evidence Based Medicine and Research (2 hours)**
  - **PHA514: Medical Ethics (2 hours)**
  - **PHA515: Clinical Procedures (1 hours)**
  - **PHA516: Emergency Medicine (4 hours)**
  - **PHA517: Pediatrics (2 hours)**
  - **PHA518: Geriatrics (1 hours)**
  - **PHA519: OB/Gyn (2 hours)**
  - **PHA520: Surgery (3 hours)**
  - **PHA521: Clinical Decision Making I (2 hours)**
  - **PHA522: Clinical Decision Making II (2 hours)**
  - **PHA523: Foundations of Cultural Competence and Health Disparities I (1 hours)**
  - **PHA524: Foundations of Cultural Competence and Health Disparities II (1 hours)**
  - **PHA525: Foundations of Cultural Competence and Health Disparities III (1 hours)**
  - **PHA620: Emergency Medicine Supervised Clinical Practice (8 hours)**
  - **PHA621: Family Medicine Supervised Clinical Practice (8 hours)**
  - **PHA622: General Internal Medicine Supervised Clinical Practice (8 hours)**
  - **PHA623: General Surgery Supervised Clinical Practice (8 hours)**
  - **PHA625: Pediatrics Supervised Clinical Practice (4 hours)**
  - **PHA626: Women's Health and Prenatal Care Supervised Clinical Practice (4 hours)**
  - **PHA627: Behavioral Medicine Supervised Practice (4 hours)**
  - **PHA628: Elective Supervised Clinical Practice (4 hours)**
  - **PHA630: Capstone (4 hours)**

- **Master of Software Engineering and Graduate Certificate in Software Engineering**
  - **CSC506: Object Oriented Programming and Data Structures (3 hours)**
  - **CSC543: Mobile Application Development I (3 hours)**
  - **CSC544: Mobile Application Development II (3 hours)**
  - **CSC550: Advanced Web Applications (3 hours)**
  - **CSC560: Advanced Web Applications II (3 hours)**
  - **CSC591: Enterprise Data Modeling (3 hours)**
  - **CSC600: Object Oriented Analysis and Design (3 hours)**
  - **CSC602: Software Project Management (3 hours)**
  - **CSC603: Networking - Design and Implementation (3 hours)**
- CSC605: Mathematical Underpinnings of Information Systems (3 hours)
- CSC610: Operating Systems (3 hours)
- CSC621: Algorithms (3 hours)
- CSC623: Programming Languages (3 hours)
- CSC640: Software Engineering (3 hours)
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- CSC650: Capstone I (3 hours)
- CSC651: Capstone II (3 hours)
- CSC660: Component Software & Implementation Issues (3 hours)
- CSC680: Software Engineering Internship (1 TO 4 hours)
- CSC691: Special Topics (3 hours)
Academic Organization

Office of Academic Affairs
Joanne Passaro, Provost

College of Arts and Sciences
Charles Byler, Dean

Department of Communication and Sociology
Rebecca Imes, chair
- Majors: Communication, Criminal Justice, Sociology

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
- Articulation Programs: 3+2 Engineering Program
- Graduate degree: Master of Software Engineering

Department of English and Modern Languages
Deirdre Keenan, chair
- Majors: English and Writing, Philosophy/Political Science/Economics (PPE), Spanish
- Minors only: Creative Writing, French, German, Philosophy, Professional Writing, Spanish

Department of History, Political Science, and Religious Studies
James Grimshaw, 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, 3+4 Biology/Doctor of Podiatry Emphasis
- Articulation Programs: 3+2 Master in Freshwater Sciences, 2+2 Marine Sciences.

Department of Visual and Performing Arts
Amy Cropper, chair
- Majors: Art, Graphic Communication, Music, Music Education, Music Therapy, Photography, Theatre Arts Management
- Minor only: Art, Arts Management, Web Design
- Graduate degree: Master of Science Graphic Communication

Department of Education
Kimberly White, chair
- Majors: Elementary Education, Educational Studies
- Minor only: Adaptive Education, Early Childhood Education, Secondary Education
- Graduate degree: Master of Education, Master of Science in Educational Leadership

College of Health Sciences
Thomas Pahnke, Interim Dean

Department of Health and Medicine
Monika Baldridge, chair
- Majors: Health Sciences, Health Sciences-Diagnostic Medical Sonography, Health Sciences-Radiologic Technology, Pre-Medical Laboratory Sciences, Public Health.
- Minor: Coaching, 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

Thomas Pahnke, chair
- Majors: Athletic Training, Exercise Science, Physical and Health Education, Pre-Physical Therapy, Sport and Recreation Administration, Therapeutic Recreation Emphasis.
- Minor only: Sports Nutrition
- Graduate degrees: Master of Science in Exercise Physiology
- Certificate: Orthopaedic Technology

Department of Nursing
Jamie Hansen, interim chair
- Major: Nursing

Doctorate of Physical Therapy
Sara Deprey, director

School of Business
Steven C. Bialek, 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

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Accreditation Information

Click here for information on accreditation.
1. Students will demonstrate advanced knowledge, skills, dispositions, and values appropriate to the discipline.
   • To be awarded an advanced degree, all graduate students will be required to complete a program of coursework appropriate to the discipline. The culminating experience activity, including a thesis, project, or comprehensive examination is required.

2. Students will demonstrate the ability to be creative, analytical, and critical thinkers.
   • Graduate level seminars and courses will require extensive research and writing activities that meet high academic standards in both form and content.
   • The completion of an original thesis or project may be required as part of graduate academic programs.

3. Students will demonstrate the ability to work as individual researchers/scholars as well as in collaboration with others in contributing to the scholarship of their disciplines, as appropriate.
   • Graduate courses, seminars, and internships may require that students demonstrate their ability to work successfully on group projects.

4. Students will demonstrate relevant knowledge and dispositions enabling work with diverse populations as appropriate to their individual discipline.
   • Student assignments may require demonstrated awareness of intercultural and global perspectives.
   • Student portfolios may be required that reflect, in either an applied or a research-oriented context, an understanding of the global perspectives of the discipline.
   • Students may be required to document proficiency or experience in second language/culture studies.

5. Students will demonstrate knowledge of new and various methods and technologies as appropriate to the discipline.
   • Students may be required to participate in a supervised practicum, internship, or service learning activity in which they demonstrate the ability to perform successfully.
   • Students may be required to participate in Distance Learning courses in which they demonstrate learning through mediated instruction.
   • Students may be required to demonstrate their ability to use multimedia in the classroom or in professional presentations.
   • Students may be required to demonstrate their ability to use all relevant information technology that is useful in their fields.

6. Students will be required to demonstrate advanced oral and written communication skills, complemented, as appropriate to the discipline, by the ability to access and analyze information from a myriad of primary, print, and technological sources.
   • Entering students may be required to submit scores from an examination such as the GRE or a similar nationally-normed assessment instrument; a minimum score may be established by individual programs.
   • Students are required to meet standards in writing competency as determined by each program.
   • Students may be required to make oral presentations in graduate courses.
   • Students are required to complete a comprehensive examination, thesis or project that demonstrates their knowledge of the discipline and their ability to communicate this knowledge articulately in both oral and written modes.
   • An original written thesis or project may be required that reflects the students’ ability to conduct research using primary sources from a broad spectrum of printed and electronic media. An oral defense or presentation of the thesis or project is required.
   • When required to write a thesis or project, students will submit timely proposals to their committees. All research conducted by students must comply with relevant federal, state, and University policies. Students are required to complete theses or projects that are persuasive, cogent, and well- articulated.

7. Students will demonstrate ethical standards of behavior, both personally and professional.
   • Students are expected to be aware of and adhere to the ethical standards appropriate to their respective fields and demonstrate personal behavior consonant with those tenants.
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 online at www.carrollu.edu/studentlife/).
Academic Progression

- Master of Science in Exercise Physiology
- Master of Science in Occupational Therapy
- Master of Science in Physician Assistant
- Doctorate of Physical Therapy
Academic Progression in Exercise Physiology

Master of Science in Exercise Physiology

A grade of B or better is required in all Exercise Physiology courses. A letter grade of C, D, F or U in an Exercise Physiology course results in the student being placed on academic probation within the program until the student is able to repeat the course and progress to subsequent courses for which the failed course is a prerequisite. When repeating an Exercise Physiology course a student may be required to successfully complete ancillary learning experiences or clinical competencies/practicums that validate theoretical knowledge. 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 suspension and repeats the course during the next appropriate semester. A course may be repeated only one time. A student receiving a C, D, F or U in the same Exercise Physiology course twice or in two Exercise Physiology courses is dismissed from the program.

A student must obtain a GPA of 3.00 or better each semester. If a student earns a semester grade point average between 2.00 – 2.99, he/she is placed on academic probation. To be removed from academic probation the student must earn a GPA of 3.00 or better in the following semester. If a clinical internship course is scheduled during the next semester, the student must earn a satisfactory (S) grade in the clinical internship course and a GPA of 3.00 or better in the semester following the clinical internship to be removed from academic probation.

If a student was placed on academic probation once and a second violation of the academic progression policy, either a grade of C, D, or F, in a course or a GPA below a 3.00 the student will be dismissed from the program. Students who cancel or withdraw from the Master of Science in Exercise Physiology Program forfeit their position in the program. Students wishing to re-enter the graduate program after cancelling or withdrawing must go through the full re-application process.

Since transportation to and from clinical and practicum sites is the student's responsibility, a vehicle is required for each student.
Master of Occupational Therapy Program Academic Progression Standards

All MOT degree program requirements must be completed by the student in 33 months unless permission is otherwise granted by the Director of the MOT Program. Satisfactory progress is contingent upon satisfying the following academic requirements:

1) Academic progression in the MOT program requires a grade of C or better or S in all MOT courses. If a student receives a letter grade of D, F or U he/she is placed on academic probation in the MOT program. In order for a student to be removed from academic probation they are required to repeat the course and obtain a C or better or S before progressing to subsequent courses. When repeating an MOT course, a student may be required to successfully complete ancillary learning experiences or clinical competencies/practicums that validate theoretical knowledge. If a student is unable to take further courses in the next occurring semester as a result of this policy, the student must wait and repeat the course during the next appropriate semester. Due to course sequencing within the program, this will delay the student’s graduation date. Students may decelerate to the next cohort only one time. MOT courses may be repeated only one time.

A student must obtain a grade point average of 3.00 or better each semester. If a student earns a semester grade point average between 2.00 to 2.99, he/she is placed on academic probation. To meet academic standards for progression, the student must earn a grade point average of 3.00 or better in the following semester. If a clinical internship course is scheduled during the next semester, the student must earn a satisfactory (S) grade in the clinical internship course to be continued on academic probation. If a student is on academic probation during their final semester in the MOT program, they must earn a grade of S in any clinical internship course, grades of C/S or better and earn a 3.0 GPA or higher to graduate from the program. If this is not obtained students will be dismissed from the MOT program.

Please note that a 3.0 AND S must be earned in the final semester to meet academic progression standards.

Dismissal from MOT Program:

If a student does not meet progression standards a second time during his or her tenure in the program, he or she will be dismissed from the program. A student receiving a D, F or U in the same MOT course twice or in two MOT courses is dismissed from the program. If a student earns a semester grade point average of 1.99 or less, he/she will be dismissed from the program.
Academic Progression in Physician Assistant Program

Physician Assistant Program

Year 1 / Didactic Academic Progression Standards

A student will be placed on academic probation if he/she fails to meet the following didactic academic progression standards:

1. The students must achieve a letter grade of C or better in all physician assistant year-1 courses. If a student receives a letter grade of D or lower in any physician assistant year-1 course, he/she will be placed on academic probation.
2. The student must also achieve and maintain a minimum cumulative and semester GPA of 3.0 throughout the didactic year or he/she will be placed on academic probation. The student must come off probation during the subsequent full semester of the program (excluding January term and May term.)

To be removed from academic probation the following criteria must be met:

1. The student must repeat the course in which they received a letter grade of D or lower and achieve a minimum letter grade of C in that course the next time it is offered. Due to course sequencing within the program, this will decelerate the student to the next cohort and will delay the student’s graduation date. Students may decelerate only one time.
2. While repeating the course, the student must achieve a C or better in all ancillary and audited learning experiences and assessments regardless of the initial grade received in those courses previously. They must also adhere to all attendance and participation policies with in the program.
3. The student must maintain a cumulative and semester grade point average (GPA) of 3.0 or better. If the student has begun clinical rotations after being placed on academic probation during the last didactic semester, he/she must earn a letter grade of B or better in the first clinical rotation and achieve a cumulative GPA of 3.0 in the following clinical semester.

A student will be dismissed from the program for any of the following:

1. A student who receives a D or an F in any two physician assistant year-1 courses at any point in the didactic year will be dismissed from the program.
2. If a student earns a year-1 cumulative GPA of 1.99 or less in any year-1 semester, he/she will be dismissed from the program.
3. A student may be placed on academic probation only one time during the program. If a student is placed on probation a second time, he/she will be dismissed from the program.

Year 2 / Clinical Academic Progression Standards

A student will be required to repeat a clinical rotation if they fail to meet the following clinical year academic progression standards:

1. Students must receive a grade of C (75% or higher) on the final preceptor evaluation for each clinical rotation. If a student receives less than a grade of C (75% or higher) on any final preceptor evaluation, they will be required to repeat that clinical rotation.
2. If a student is dismissed from a rotation by a preceptor for any cognitive or non-cognitive reason, the dismissal may be considered a failure of that rotation pending review by the Clinical Coordinator and the Program Director regardless of the final grade awarded by the preceptor. A failed rotation must be repeated.
3. Students must pass the EOR examination for each clinical rotation with a C (70% or higher.) If a student receives less than a C (70% or lower), they will be required to complete remediation as outlined in the Clinical Manual as facilitated by the PA faculty, and retake the exam within two weeks. If the student passes the repeat examination, he/she will receive a grade of a C (70%) on the examination regardless of the grade achieved on the second examination. If the student receives less than a C (70% or lower) a second time, they must repeat that rotation.

All students required to repeat a clinical rotation must also complete remediation as outlined by the Clinical Coordinator. Repeat rotations will be arranged and scheduled by the Clinical Coordinator at or near the end of the clinical year and may delay the student’s graduation pending preceptor availability. All students will be given the final minimum passing grade of a C (70%) for a repeat rotation regardless of the grade achieved during the repeat rotation.

A student will be dismissed from the program for any of the following:

1. A student who receives less than a C (75% or lower) on a repeat rotation’s final preceptor evaluation, or is again dismissed from a rotation by the preceptor, will be dismissed from the program.
2. A student who is required to repeat two rotations will be dismissed from the program.
Academic Progression Physical Therapy Program

Physical Therapy Program

All entry-level Physical Therapy program requirements must be completed in 33 months unless permission is otherwise granted by the director of the Physical Therapy program. The academic progress of students in the Physical Therapy program is evaluated at the end of each semester. Progression standards are subject to change based on regulatory, licensing, and/or certification needs. Satisfactory progress is contingent upon satisfying the following academic requirements:

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. When repeating a physical therapy course, a student may be required to successfully complete ancillary learning experiences or clinical competencies/practicums that validate theoretical knowledge. 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 suspension and repeats the course during the next appropriate semester. A course may be repeated only one time. A student receiving a D, F or U in the same physical therapy course twice or in two physical therapy courses is dismissed from the program.

2) A student must obtain a grade point average of 3.00 or better each semester, and a grade of S in all courses graded S/U courses. If a student earns a semester grade point average between 2.00 to 2.99, or received a U in a course, he or she is placed on academic probation. To meet the requirements of an academic probation term, the student must earn a grade point average of 3.00 or better in all subsequent semesters. If a clinical internship course is scheduled during the next semester, the student must earn an S in the clinical internship course and a semester grade point average of 3.00 or better in the semester following the clinical internship to meet academic progression standards. If a student is on academic probation the last semester of the program, the student must earn an S in the clinical internship course to graduate. A student will be dismissed from the program if 1) s/he fails to meet academic standards any time following a probation term, or 2) if s/he earns a semester GPA of 1.99 or less. While on probation, students may be required to complete activities designed to facilitate success.
ACADEMIC STANDING

All Master of Business Administration, Master of Education and Master of Software Engineering students are subject to the following policy regarding academic standing. For all other graduate programs, click here.

Progression policies within a particular program will supersede the University policy below.

GOOD STANDING

All students are expected to maintain at least a B (3.00) grade point average in all graduate course work. Any student who earns a grade of C or lower or who does not maintain at least a 3.0 semester or cumulative grade point average in graduate course work is subject to academic action following a review by the Academic Steering Committee (ASC).

PROBATION

All graduate students with any number of attempted credits are eligible for probation. As soon as a student’s graduate semester or cumulative grade point average drops below a 3.0, that student is placed on academic probation.

Students not currently on probation who achieve a GPA below a 2.5, have earned a C or lower grade in a previous semester or have earned a grade of D and/or F in any graduate course will be suspended for one semester and the adjacent summer. All courses with an earned grade of C, D or F must be repeated.

Students currently on probation who fail to meet the terms of their probation will be suspended for one semester and the adjacent summer.

DISMISSAL

All graduate students with a minimum of 9 attempted credits are eligible for dismissal.

Students not currently on probation who have earned all D's and/or F's with 9 attempted credits or students who have previously been suspended and have earned below a B average in the semester or have a cumulative GPA below 3.0 will be dismissed from the program.

Students currently on probation who were previously suspended will be dismissed if probation conditions are not met.

Students may appeal any probation, suspension or dismissal to the Academic Steering Committee (ASC).

REAPPLICATION PROCESS

After the lapse of one full academic year, students returning to Carroll must reapply for graduate admission. If a student has been suspended from a program, he/she must complete any conditions or requirements following the suspension and reapply for graduate admission.

A student has a total of seven years to complete any graduate program. Upon re-acceptance, the student will receive a letter indicating his or her remaining time to complete the program.

Note: Graduate programs admit qualified students regardless of race, color, creed, sex, age, sexual orientation, national or ethnic origin, or disability that does not interfere with the performance of professional practice.
Adding or Dropping Courses

A student may add a course only during the first week of the fall or spring semesters. For summer sessions and other specially timed courses, refer to the published timetables for deadline dates to add courses. A student may drop a registered course through the eighth complete week of the fall or spring semesters. For summer sessions and other specially timed courses, refer to the published timetables for deadline dates to drop courses. (Drop policy may vary for specific programs.) 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. Courses improperly dropped will be designated by the grade of F.
Attendance

The University expects students to be prompt and regular in attendance at all scheduled classes. Records of attendance are maintained by each individual professor, and official notification is given to any student with excessive absences. Attendance at clinical and field experiences, if appropriate, is mandatory for all students.
Awarding of Degrees

Degrees are awarded three times a year (May, August, and December) to graduates who have completed all degree requirements. The formal conferring of degrees for the year occurs at the Commencement ceremony in May. To participate in the Commencement ceremony all graduate students must have completed all degree requirements.
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.
**Grading System and Grade Point Calculation**

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.*

<table>
<thead>
<tr>
<th>Letter</th>
<th>Grade points</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
<td>Excellent</td>
</tr>
<tr>
<td>AB</td>
<td>3.50</td>
<td>Intermediate grade</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
<td>Good</td>
</tr>
<tr>
<td>BC</td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
<td>Failure</td>
</tr>
<tr>
<td>AU</td>
<td></td>
<td>Audit</td>
</tr>
<tr>
<td>I</td>
<td></td>
<td>Incomplete (see definition)</td>
</tr>
<tr>
<td>NR</td>
<td></td>
<td>Grade not received</td>
</tr>
<tr>
<td>IP</td>
<td></td>
<td>In progress</td>
</tr>
<tr>
<td>S</td>
<td></td>
<td>Satisfactory (A, A/B, B level)</td>
</tr>
<tr>
<td>U</td>
<td></td>
<td>Unsatisfactory (D or F level)</td>
</tr>
<tr>
<td>W</td>
<td></td>
<td>Withdrawal</td>
</tr>
</tbody>
</table>

*This is the general grading system of the graduate programs. Grading policy may vary for specific programs.

**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 three-credit course, for example, a grade of B yields 9 grade points; a grade of A yields 12 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 12 academic credits in which 36 grade points are earned will yield a grade point average of 3.00 or an average of B (36 divided by 12 = 3.00).
Graduation

An Application for Graduation form must be filed with the Registrar’s Office one year before the expected date of graduation. Forms are available at the Registrar’s Office or online at [http://www.carrollu.edu/academics/registrar](http://www.carrollu.edu/academics/registrar). After the application is filed, a degree audit is sent to the student indicating remaining requirements to be completed.
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 at [www.carrollu.edu/academics/registrar/](http://www.carrollu.edu/academics/registrar/) and at 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 director of the graduate program 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 next semester or it automatically becomes a failure. An extension may be granted only with written consent from the student, the instructor and the director of the graduate program.
Independent Study

Independent study may be offered by individual graduate programs. See specific program for detailed guidelines regarding independent study. Independent study courses must be approved by the instructor, program director and college dean.
Internships or Work-Orientated Experiences

Internships and field experiences are under the direct supervision or coordination 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 individual 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 consult with the program director or an appropriate faculty member to arrange for an internship or field experience.
Medical or Personal Leave

If a student must be absent from the program for an extended period of time for medical or personal reasons or jury duty, written notice must be given to the director of the specific graduate program. Written notice must also be given to the director of the specific graduate program prior to the student's return to the program. If applicable, the student may be asked to verify that he or she has complied with any technical standards previously imposed and with conditions for the leave. In addition, remediation or course repetition may be required of the student dependent on the length of the absence or curriculum revisions approved during the leave. Any course, laboratory, outside learning experience or full-time clinical make-up or remediation is dependent upon academic scheduling and professional faculty and facility availability.
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.
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 available at the registrar's office. 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.

FERPA also states that all institutions must disclose graduation rates to current and prospective students. These rates are available in the office of admission and online at http://nces.ed.gov/collegenavigator/.

1 Furnished by the United States Department of Education, fact sheet.
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 of 1974, transcripts cannot be released without the express written consent of the student.

Transcript requests are completed online. To begin your order, click here.
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.), he/she may contact the Office of Student Success to communicate their intent. The office is located in Voorhees 328 and the phone number is 262-524-7360.

Please refer to your specific program in the catalog for specific instructions as some programs have additional requirements for withdrawal.
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.
### Academic Calendar
#### FALL SEMESTER 2017

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 1</td>
<td>Friday</td>
<td>Freshman “Move in Day”</td>
</tr>
<tr>
<td>September 3</td>
<td>Sunday</td>
<td>All returning students &quot;Move in Day&quot;</td>
</tr>
<tr>
<td>September 4</td>
<td>Monday</td>
<td>Labor Day – no classes</td>
</tr>
<tr>
<td>September 5</td>
<td>Tuesday</td>
<td>First-half semester MBA courses begin</td>
</tr>
<tr>
<td>September 5</td>
<td>Tuesday</td>
<td>Orientation for new part-time and full-time transfer students</td>
</tr>
<tr>
<td>September 5</td>
<td>Tuesday</td>
<td>CCS100 courses meet. Attendance is required for students registered in CCS100</td>
</tr>
<tr>
<td>September 6</td>
<td>Wednesday</td>
<td>Last day to decrease or cancel meal plans. <a href="https://my.carrollu.edu/ICS/Departments/Dining_Services/Meal_Plans.jnz">https://my.carrollu.edu/ICS/Departments/Dining_Services/Meal_Plans.jnz</a></td>
</tr>
<tr>
<td>September 6</td>
<td>Wednesday</td>
<td>Opening Day Convocation</td>
</tr>
<tr>
<td>September 7</td>
<td>Thursday</td>
<td>FA17 UNDG and remaining GRAD courses begin. (New registrations and schedule changes can be done online).</td>
</tr>
<tr>
<td>September 13</td>
<td>Wednesday</td>
<td>First-half semester MBA courses: last day to add.</td>
</tr>
<tr>
<td>September 14</td>
<td>Thursday</td>
<td>FA17 UNDG and GRAD (non-MBA): last day to add classes. Last day to admit new students. Last day to change from FT to PT status OR to change from PT to FT status. FT students must be registered for 12 credits. WE DO NOT COUNT WAITLISTED COURSES.</td>
</tr>
<tr>
<td>September 22</td>
<td>Friday</td>
<td>First-half-semester classes: last day to select S/U grading or change from S/U to letter grading (non-MBA).</td>
</tr>
<tr>
<td>September 29</td>
<td>Friday</td>
<td>Last day to turn in grade appeals to Academic Affairs for the SP17 and SU17 terms</td>
</tr>
<tr>
<td>October 4</td>
<td>Wednesday</td>
<td>First-half semester MBA courses: last day to drop or change to audit.</td>
</tr>
<tr>
<td>October 5</td>
<td>Thursday</td>
<td>Last day to select S/U grading or to change from S/U to letter grading.</td>
</tr>
<tr>
<td>October 5</td>
<td>Thursday</td>
<td>First-half-semester classes: last day to drop or change to audit. (Non-MBA courses)</td>
</tr>
<tr>
<td>October 7</td>
<td>Saturday</td>
<td>Homecoming</td>
</tr>
<tr>
<td>October 9</td>
<td>Monday</td>
<td>Last day for part-time students not receiving Title IV aid to drop a class and receive a partial refund.</td>
</tr>
<tr>
<td>October 13</td>
<td>Friday</td>
<td>Fall break begins: Campus housing remains open for fall break. MBA classes meet.</td>
</tr>
<tr>
<td>October 18</td>
<td>Wednesday</td>
<td>UNDG and remaining GRAD: classes resume (non-MBA).</td>
</tr>
<tr>
<td>October 19</td>
<td>Thursday</td>
<td>Mid-term grades due.</td>
</tr>
<tr>
<td>October 19</td>
<td>Thursday</td>
<td>SP18 Registration packets available ONLINE for all current students</td>
</tr>
<tr>
<td>October 19</td>
<td>Thursday</td>
<td>Advising begins for all students for SP18: required for UNDG students. Recommended for GRAD students.</td>
</tr>
<tr>
<td>October 25</td>
<td>Wednesday</td>
<td>First-half semester MBA courses end.</td>
</tr>
</tbody>
</table>
October 31 Tuesday 6 p.m.  Second-half semester MBA courses begin.

November 2 Thursday  
Deadline for submitting work to instructors for incompletes received the previous spring and summer.

November 2 Thursday  
**FA17: Last day to drop classes or to change to audit. (Non-MBA courses)**

November 8 Wednesday 
Second-half semester MBA courses: last day to add.

November 9 Thursday 9 a.m. 
WN18 Registration

November 9 Thursday 
Second-half-semester classes: last day to select S/U grading or change from S/U to letter grading (Non-MBA courses).

November 9 Thursday 
Incomplete grades lapse into "F" if no grade submitted from previous spring and summer.

November 13 Monday 9 a.m. 
SP18 Registration begins for currently enrolled UNDG students

November 20 Monday 
SP18 Registration begins for all new students

November 20 Monday 
SP18 Registration begins for all GRAD students

November 20 Monday 
Second-half-semester classes: last day to drop or change to audit (Non-MBA courses).

November 22 Wednesday 6 p.m. 
Thanksgiving recess begins.

November 22 Wednesday 6 p.m. 
Campus Housing closes.

November 22 Wednesday 6 p.m. 
**MBA courses will meet.**

November 26 Sunday Noon 
Campus Housing opens to students.

November 27 Monday 7 a.m. 
Classes resume (All UNDG and GRAD).

November 29 Wednesday 
Second-half semester MBA courses: last day to drop or change to audit.

December 13 Wednesday Last day of classes.

December 14 Thursday Reading Day: no daytime classes; final exams for Thursday evening & Tuesday/Thursday evening classes.

December 15, 18-20  F, M, T, W 
Final examinations (No weekend exams).

December 20 Wednesday  
Second-half semester MBA courses: end

December 21 Thursday Noon 
Campus Housing closes.

December 22 Friday 9 a.m. 
Final grades due.

**WINTER SESSION 2018**

January 1 Monday Noon 
Campus Housing opens for winter session students and approved groups

January 2 Tuesday 8 a.m. 
**WN18 Classes begin. (New registrations and schedule changes can be done online).**

January 4 Thursday 
WN18 Last day to add.

January 5 Friday 
WN18 Last day to drop.
### SPRING SEMESTER 2018

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 9</td>
<td>Tuesday</td>
<td>6 p.m.</td>
<td>First-half semester MBA classes begin.</td>
</tr>
<tr>
<td>January 17</td>
<td>Wednesday</td>
<td></td>
<td>First-half semester MBA classes: last day to add.</td>
</tr>
<tr>
<td>January 21</td>
<td>Sunday</td>
<td>Noon</td>
<td>Campus Housing opens.</td>
</tr>
<tr>
<td>January 21</td>
<td>Sunday</td>
<td></td>
<td>Last day to decrease or cancel meal plans. <a href="https://my.carrollu.edu/ICS/Departments/Dining_Services/Meal_Plans.jnz">https://my.carrollu.edu/ICS/Departments/Dining_Services/Meal_Plans.jnz</a>.</td>
</tr>
<tr>
<td>January 22</td>
<td>Monday</td>
<td>5 p.m.</td>
<td>Orientation for new transfer students.</td>
</tr>
<tr>
<td>January 22</td>
<td>Monday</td>
<td>7 a.m.</td>
<td>SP18 UNDG and remaining GRAD courses begin. (New registrations and schedule changes can be done online).</td>
</tr>
<tr>
<td>January 29</td>
<td>Monday</td>
<td></td>
<td>SP18 UNDG and GRAD (non-MBA): last day to add classes. Last day to admit new students. Last day to change from PT to FT status OR from FT to PT status. FT students must be registered for 12 credits. WE DO NOT COUNT WAITLISTED COURSES.</td>
</tr>
<tr>
<td>February 7</td>
<td>Wednesday</td>
<td></td>
<td>Last day to drop first half semester MBA courses</td>
</tr>
<tr>
<td>February 7</td>
<td>Wednesday</td>
<td>11 a.m.</td>
<td>Founders’ Day Convocation.</td>
</tr>
<tr>
<td>February 7</td>
<td>Wednesday</td>
<td></td>
<td>First-half-semester classes: last day to select S/U grading or to change from S/U to letter grading (Non-MBA courses).</td>
</tr>
<tr>
<td>February 12</td>
<td>Monday</td>
<td>9 a.m.</td>
<td>FA18 Registration packets available ONLINE to all current students</td>
</tr>
<tr>
<td>February 12</td>
<td>Monday</td>
<td></td>
<td>Advising begins for all students for FA18: required for UNDG students. Recommended for GRAD students</td>
</tr>
<tr>
<td>February 14</td>
<td>Wednesday</td>
<td></td>
<td>Last day to turn in grade appeals to Academic Affairs for the FA17 and WN18 semesters.</td>
</tr>
<tr>
<td>February 21</td>
<td>Wednesday</td>
<td></td>
<td>Last day to select S/U grading or to change from S/U to letter grading.</td>
</tr>
<tr>
<td>February 21</td>
<td>Wednesday</td>
<td></td>
<td>First-half-semester classes: last day to drop or change to audit (Non-MBA courses).</td>
</tr>
<tr>
<td>February 26</td>
<td>Monday</td>
<td></td>
<td>Last day for part-time students not receiving Title IV aid to drop a class and receive a partial refund.</td>
</tr>
<tr>
<td>February 28</td>
<td>Wednesday</td>
<td></td>
<td>First-half semester MBA courses end.</td>
</tr>
<tr>
<td>March 5</td>
<td>Monday</td>
<td>9 a.m.</td>
<td>SU18 Registration begins</td>
</tr>
<tr>
<td>March 6</td>
<td>Tuesday</td>
<td></td>
<td>Second-half semester MBA courses begin.</td>
</tr>
<tr>
<td>March 12</td>
<td>Monday</td>
<td></td>
<td>FA18 Registration begins for current UNDG students</td>
</tr>
<tr>
<td>March 14</td>
<td>Wednesday</td>
<td></td>
<td>Second-half semester MBA courses: last day to add.</td>
</tr>
<tr>
<td>March 16</td>
<td>Friday</td>
<td>10:00 pm</td>
<td>Classes end for Spring break.</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Time</td>
<td>Event</td>
</tr>
<tr>
<td>------------</td>
<td>-----------</td>
<td>--------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>March 17</td>
<td>Saturday</td>
<td>Noon</td>
<td>Spring Break begins.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Noon</td>
<td>Campus Housing closes.</td>
</tr>
<tr>
<td>March 25</td>
<td>Sunday</td>
<td>Noon</td>
<td>Campus Housing opens.</td>
</tr>
<tr>
<td>March 26</td>
<td>Monday</td>
<td>7 a.m.</td>
<td>Classes resume.</td>
</tr>
<tr>
<td>March 26</td>
<td>Monday</td>
<td>9 a.m.</td>
<td>Mid-term grades due.</td>
</tr>
<tr>
<td>March 26</td>
<td>Monday</td>
<td></td>
<td>FA18 Registration for all new students</td>
</tr>
<tr>
<td>March 26</td>
<td>Monday</td>
<td></td>
<td>FA18 Graduate registration opens</td>
</tr>
<tr>
<td>March 26</td>
<td>Monday</td>
<td></td>
<td><strong>Deadline for submitting work to instructors for incompletes received the previous fall and winter.</strong></td>
</tr>
<tr>
<td>March 26</td>
<td>Monday</td>
<td></td>
<td>Second half-semester classes: last day to select S/U grading or change from S/U to letter grading.</td>
</tr>
<tr>
<td>March 30</td>
<td>Friday</td>
<td></td>
<td>Good Friday: no classes.</td>
</tr>
<tr>
<td>April 2</td>
<td>Monday</td>
<td>7 a.m.</td>
<td>Classes Resume.</td>
</tr>
<tr>
<td>April 4</td>
<td>Wednesday</td>
<td></td>
<td><strong>SP18: last day to drop or change to audit (Non-MBA courses).</strong></td>
</tr>
<tr>
<td>April 11</td>
<td>Wednesday</td>
<td></td>
<td>Second-half semester MBA courses: last day to drop or change to audit.</td>
</tr>
<tr>
<td>April 11</td>
<td>Wednesday</td>
<td></td>
<td>Incompletes lapse into “F” if no grade submitted from fall and winter.</td>
</tr>
<tr>
<td>April 17</td>
<td>Tuesday</td>
<td></td>
<td>Second-half-semester classes: last day to drop or change to audit.</td>
</tr>
<tr>
<td>April 18</td>
<td>Wednesday</td>
<td></td>
<td>Celebrate Carroll.</td>
</tr>
<tr>
<td>May 1</td>
<td>Tuesday</td>
<td></td>
<td>Last day of classes.</td>
</tr>
<tr>
<td>May 2</td>
<td>Wednesday</td>
<td></td>
<td>Second-semester MBA classes: end</td>
</tr>
<tr>
<td>May 2</td>
<td>Wednesday</td>
<td></td>
<td>Reading Day: no daytime classes; final exams for Wednesday evening &amp; Monday/Wednesday evening classes.</td>
</tr>
<tr>
<td>May 3-4, 7-8</td>
<td>Thurs-Fri, Mon-Tues</td>
<td></td>
<td>Final examinations (No weekend exams).</td>
</tr>
<tr>
<td>May 9</td>
<td>Wednesday</td>
<td>Noon</td>
<td>Campus Housing closes for students not participating in Commencement.</td>
</tr>
<tr>
<td>May 10</td>
<td>Thursday</td>
<td>1 p.m.</td>
<td><strong>Final grades due (for graduating students).</strong></td>
</tr>
<tr>
<td>May 11</td>
<td>Friday</td>
<td></td>
<td>Baccalaureate</td>
</tr>
<tr>
<td>May 12</td>
<td>Saturday</td>
<td></td>
<td>Commencement (UNDG and GRAD).</td>
</tr>
<tr>
<td>May 14</td>
<td>Monday</td>
<td>Noon</td>
<td>Campus Housing closes for students not participating in S118 (summer session one 2018).</td>
</tr>
<tr>
<td>May 15</td>
<td>Tuesday</td>
<td>9 a.m.</td>
<td>Final grades due.</td>
</tr>
</tbody>
</table>
SUMMER SESSIONS 2018

Summer Housing Information to be released

S118  May 9 – May 30
May 8  Tuesday  MBA courses begin (Session One).
May 9  Wednesday  S118 Classes begin (New registrations and schedule changes can be done online).
May 11  Friday  Last day to add (Non-MBA courses).
May 16  Wednesday  Last day to select S/U grading or change from S/U to letter grading.
May 16  Wednesday  MBA courses Session One: last day to add
May 17  Thursday  Last day to drop or change to audit.
May 21  Monday  Physical Therapy courses begin
May 28  Monday  Memorial Day - no classes.
May 30  Wednesday  S118 Ends (Need to watch individual course dates)
May 30  Wednesday  Last day to decrease or cancel meal plans.
https://my.carrollu.edu/ICS/Departments/Dining_Services/Meal_Plans.jnz.

S218  May 31 – July 12
May 31  Thursday  S218 Classes begin (New registrations and schedule changes can be done online).
June 6  Wednesday  MBA courses Session One: last day to drop or change to audit
June 7  Thursday  Last day to add (Non-MBA courses).
June 14  Thursday  Last day to select S/U grading or change from S/U to letter grading.
June 21  Thursday  Last day to drop classes or change to audit.
June 27  Wednesday  MBA Session One: courses end.
July 4  Wednesday  4th of July Holiday- no classes.
July 10  Tuesday  MBA Session Two: courses begin
July 12  Thursday  S218 Ends (Need to watch individual course dates).

S318  July 13 – August 23
July 13  Friday  S318 Classes begin (New registrations and schedule changes can be done online).
July 18  Wednesday  MBA courses Session Two: last day to add.
July 20  Friday  Last day to add (Non-MBA courses).
July 27  Friday  Last day to select S/U grading or change from S/U to letter grading.
August 3  Friday  Last day to drop classes or change to audit.
August 8  Wednesday  MBA courses Session Two: last day to drop or change to audit.
August 17  Thursday  Physical Therapy courses end
August 23  Thursday  S318 Ends (Need to watch individual course dates).
August 29  Wednesday  MBA Session Two: courses end.
Financial aid is available to graduate students who are enrolled at least on a half-time basis per semester, 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 a minimum of three credit hours per semester and full-time status is a minimum of six credit hours per semester. Graduate students are only eligible to receive financial assistance in the form of loans, unless a scholarship or grant is received from an outside organization. Below is a brief description of the various loan programs for which a graduate student may be eligible and the application procedure.

**APPLICATION FOR AID**

The Free Application for Federal Student Aid (FAFSA) must be completed and sent to the federal processor. Students are encouraged to complete the FAFSA by February 1st for summer and Fall enrollment and October 1st for January enrollment. 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 from the federal processor.

**LOANS**

Loans for which students enrolled at least half-time may qualify are:

**Federal Direct Unsubsidized Loan:** An unsubsidized loan is not awarded on the basis of financial need. Students who receive an unsubsidized loan are charged interest from the time the loan is disbursed until it is paid in full. Students do have the option to allow the interest to accumulate. In doing so, the interest will be added to the principal amount of the loan and additional interest will be based upon the higher amount. The annual maximum a student may borrow is $20,500 and the aggregate maximum is $138,500. The aggregate maximum includes all undergraduate and graduate loans. Funds are provided directly from the Federal Government. Applicants must complete a promissory note and complete entrance counseling in order to receive the funds.

**Note:** Information regarding interest rate, repayment and deferment options for the Federal Direct Unsubsidized Loan is available through the Financial Aid Office. This information is forwarded to eligible students with financial aid award notifications.

**Federal Graduate PLUS Loan:** A degree seeking graduate student who files the Free Application for Federal Student Aid (FAFSA) can apply for a Graduate PLUS loan. A Graduate PLUS loan is not awarded based on financial need. Applicants must complete a promissory note and complete entrance counseling to apply for the loan. Funds are provided directly from the Federal Government. Students will be approved/denied based on credit history (there is also the option of having a co-signer on this loan). Students who borrow a graduate PLUS loan are charged interest from the time the loan is disbursed until it is paid in full. The annual amount available is based on the following formula: Cost of attendance minus other financial aid. Repayment on this loan begins 60 days following the second date of disbursement. There is a 10-year repayment period. Information regarding interest rate, repayment and deferment options for the Federal is available through the Financial Aid Office or on the University website. This information will also be forwarded to eligible students with financial aid award notifications.

**Alternative Educational Loans:** If a student is in need of additional assistance after receiving the maximum Federal Unsubsidized Loan, he or she may be eligible to receive an alternative educational loan. In order to be eligible for an alternative educational loan, a student’s cost of attendance (as determined by the Carroll University Financial Aid Office) must be greater than the combined amount of other financial assistance. If interested, you may contact the Financial Aid Office to find out more about the various alternative loans available.

**Note:** Students attending less than half-time may be eligible to borrow an Alternative Educational Loan. Please contact the Carroll University Financial Aid Office for additional information.

**OPTIONS FOR ATTENDING CARROLL**

Students who wish to attend Carroll University as a graduate student may choose from several options per individual graduate program policy.

- **Full-time** — six credits or more per semester*
- **1/2-time** — three to five credits per semester+
- **Less than 1/2-time** — students who carry one or two credits per semester.

*Some graduate programs require that students take 12 or more credits per semester.
+Some graduate programs do not permit part-time enrollment.
Tuition and Fees

Specific tuition and fees vary according to program. See specific graduate programs for detailed information.

Tuition and Program Fees
Payment Methods/Procedures
Payment Options
Refund Policies
BookCHARGE
# Graduate Tuition and Fees

<table>
<thead>
<tr>
<th>Program</th>
<th>Fee Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Master of Business Administration</strong></td>
<td>$644.00 per credit</td>
</tr>
<tr>
<td><strong>Master of Science in Exercise Physiology</strong></td>
<td>$563.00 per credit</td>
</tr>
<tr>
<td><strong>Master of Science in Exercise Physiology-Program Fee</strong></td>
<td>$548.00 per semester (fall, spring, and summer) (non-refundable)</td>
</tr>
<tr>
<td><strong>Graduate Program in Education</strong></td>
<td>$538.00 per credit</td>
</tr>
<tr>
<td><strong>Education credit for work experience</strong></td>
<td>$251.00 per credit</td>
</tr>
<tr>
<td><strong>Master of Science Physician Assistant - Year 1</strong></td>
<td>$34,662.00 per year</td>
</tr>
<tr>
<td><strong>Master of Science Physician Assistant - Year 2</strong></td>
<td>$33,615.00 per year</td>
</tr>
<tr>
<td><strong>Master of Science Physician Assistant Program Fee</strong></td>
<td>$1,341.00 per year</td>
</tr>
<tr>
<td><strong>Doctor of Physical Therapy</strong></td>
<td><strong>Tuition</strong></td>
</tr>
<tr>
<td></td>
<td>$781.00 per credit</td>
</tr>
<tr>
<td><strong>PT Professional Phase Program Fee</strong></td>
<td>$549.00 per semester</td>
</tr>
<tr>
<td><strong>Master of Software Engineering</strong></td>
<td>$704.00 per credit</td>
</tr>
<tr>
<td><strong>Software Engineering Program Fee</strong></td>
<td>$110.00 per semester</td>
</tr>
<tr>
<td><strong>Auditing</strong></td>
<td>$201.00 per credit</td>
</tr>
<tr>
<td><strong>OCICU online Software Engineering Courses</strong></td>
<td>$687.00 per credit</td>
</tr>
<tr>
<td><strong>OCICU online Education Courses</strong></td>
<td>$507.00 per credit</td>
</tr>
<tr>
<td><strong>Occupational Therapy Tuition</strong></td>
<td>$734.00 per credit</td>
</tr>
<tr>
<td><strong>Occupational Therapy Program Fee</strong></td>
<td>$549.00 per semester</td>
</tr>
<tr>
<td><strong>Orthopedic Technologist</strong></td>
<td><strong>Tuition</strong></td>
</tr>
<tr>
<td></td>
<td>$412.00 per credit</td>
</tr>
<tr>
<td><strong>Orthopedic Technologist Program Fee</strong></td>
<td>$515.00 one time only</td>
</tr>
<tr>
<td><strong>Application Fee-Graduate (Occupational Therapy)</strong></td>
<td>$25.00</td>
</tr>
<tr>
<td><strong>Application Fee-Graduate (Physical Therapy &amp; Physician Assistant)</strong></td>
<td>$50.00</td>
</tr>
<tr>
<td><strong>Completion Fee</strong></td>
<td>$135.00</td>
</tr>
</tbody>
</table>

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PAYMENT METHODS/PROCEDURES

Payments can be made online through ePAY at my.carrollu.edu.

Visa, MasterCard, American Express, Discover and eCheck are accepted. Full and partial payments can be made any time before the due dates. Payments will also be accepted through the mail and in person at the Carroll University Business Office. For security reasons, credit or debt card payments cannot be accepted via telephone.

A convenience fee will be added when using a debit or credit card to make payments on student account balances.

Payment Procedures

Charges for tuition, fees, room and board are the obligation of the student upon registration and are due on the first day of the semester.

Due Dates are:

<table>
<thead>
<tr>
<th>Session</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Session I, 2017</td>
<td>May 11, 2017</td>
</tr>
<tr>
<td>Summer Session II, 2017</td>
<td>June 5, 2017</td>
</tr>
<tr>
<td>Summer Session III, 2017</td>
<td>July 18, 2017</td>
</tr>
<tr>
<td>Fall 2017</td>
<td>September 7, 2017</td>
</tr>
<tr>
<td>Winter 2018</td>
<td>January 2, 2018</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>January 22, 2018</td>
</tr>
<tr>
<td>Summer Session I, 2018</td>
<td>May 9, 2018</td>
</tr>
<tr>
<td>Summer Session II, 2018</td>
<td>May 31, 2018</td>
</tr>
<tr>
<td>Summer Session III, 2018</td>
<td>July 13, 2018</td>
</tr>
</tbody>
</table>

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 username and password, click on Student>Billing and Payment>View bill. Students can view changes in charges or financial aid made to their student account during the semester/session @ http://my.carrollu.edu. Sign in with your username and password, click on student, click on Billing and Payment. Under ePAY click on "View Balance". On your account page select "click here to view transaction history.

Late Fee:

Non-payment Plan Late Fees:

Late Fees in the amount of $35.00 will be assessed monthly on any overdue balance (overdue balance: unpaid balance that is over 30 days old) of $20.00 or greater.

Monthly Payment Plan (myPAYPLAN):

Enrollment Fee: $50.00 due upon enrollment - per semester (Non-Refundable)

A Late Fee of $35.00 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. If the University incurs any expenses in collecting the student's account, the student shall pay all the University's cost of collection. This includes, but is not limited to, a collection agency fee which may be based on a percentage at a maximum of 30% of the debt, and/or reasonable attorney's fees. 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**

**DUE DATES:**

<table>
<thead>
<tr>
<th>Session</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer I, 2017</td>
<td>May 11, 2017</td>
</tr>
<tr>
<td>Summer II, 2017</td>
<td>June 5, 2017</td>
</tr>
<tr>
<td>Summer III, 2017</td>
<td>July 18, 2017</td>
</tr>
<tr>
<td>Fall 2017</td>
<td>September 7, 2017</td>
</tr>
<tr>
<td>Winter 2018</td>
<td>January 2, 2018</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>January 22, 2018</td>
</tr>
<tr>
<td>Summer I, 2018</td>
<td>May 9, 2018</td>
</tr>
<tr>
<td>Summer II, 2018</td>
<td>May 31, 2018</td>
</tr>
<tr>
<td>Summer III, 2018</td>
<td>July 13, 2018</td>
</tr>
</tbody>
</table>

**PAYMENT OPTIONS:**

**Summer 2017, Winter 2018 and Summer 2018**

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 2017**

1. Pay in full on or before the first day of the semester. **September 7, 2017**

2. Enroll (online) in a 4, 5 or 6 month payment plan agreement for Fall 2017. Students may enroll in a 4, 5 or 6 month payment plan agreement beginning June 15, 2017. A $50.00 enrollment fee is due upon enrollment-per semester. (Non-Refundable). Be prepared, however, to pay past-due installment amounts as well 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 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 recalculation 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, 2018. A monthly Late Fee of $35.00 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 2018**

1. Pay in full on or before the first day of the semester. **January 22, 2018**

2. Enroll (online) in a 4, 5 or 6 month payment plan agreement for Spring 2018. Students may enroll in a 4, 5 or 6 month payment plan agreement beginning December 15, 2017. A $50.00 enrollment fee is due upon enrollment-per semester. (Non-Refundable). Be prepared, however, to pay past-due installment amounts as well 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 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 recalculation 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, 2018. A monthly Late Fee of $35.00 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.
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.

To begin the withdrawal process the student must fill out the withdrawal form. This form may be obtained from the Office of Student Success, located in Voorhees. This form must be returned to the Office of Student Success, 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.

A student who withdraws from the university may be eligible for a refund. The amount of the refund is determined by the charges on the student's account and is calculated using 2 formulas:

1) Tuition and Fees: determined by the Carroll University refund policy.

The actual refund is calculated based on factors such as date of withdrawal, housing/foodservice charges and other misc. charges such as library fines. A worksheet is available in the Business Office for students who would like to estimate their withdrawal refund.

A student who withdraws may be responsible for tuition, 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.

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, Perkins Loan, 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 Unsubsidized Stafford Loan Program
2. Federal Subsidized Stafford Loan Program
3. Federal Perkins Loan Program
4. Federal PLUS Loan Program
5. Federal Pell Grant Program
6. Federal SEOG Program
7. TEACH Grant Program
8. Iraq Afghanistan Service Grant
9. 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 Business Office.

Students who withdraw and have Carroll aid and/or aid other than Title IV will earn this aid according to the following schedule:

<table>
<thead>
<tr>
<th>FALL 2017</th>
<th>Percentage</th>
<th>SPRING 2018</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, September 6, 2017</td>
<td>0%</td>
<td>Sunday January 21, 2018</td>
<td>0%</td>
</tr>
<tr>
<td>Monday, September 18, 2017</td>
<td>20%</td>
<td>Monday, February 5, 2018</td>
<td>20%</td>
</tr>
<tr>
<td>Monday, September 25, 2017</td>
<td>40%</td>
<td>Monday, February 12, 2018</td>
<td>40%</td>
</tr>
<tr>
<td>Monday, October 2, 2017</td>
<td>60%</td>
<td>Monday, February 19, 2018</td>
<td>60%</td>
</tr>
<tr>
<td>Monday, October 9, 2017</td>
<td>80%</td>
<td>Monday, February 26, 2018</td>
<td>80%</td>
</tr>
<tr>
<td>Tuesday, October 10, 2017 (on or after)</td>
<td>100%</td>
<td>Tuesday, February 27, 2018 (on or after)</td>
<td>100%</td>
</tr>
</tbody>
</table>

Students who withdraw from specially timed courses for the Fall 17 or Spring 18 semester and have Carroll aid and/or aid other than Title IV will earn this aid according to the following schedule:

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdraw before the first day of class</td>
<td>0%</td>
</tr>
<tr>
<td>Withdraw before the second day of class</td>
<td>25%</td>
</tr>
<tr>
<td>Withdraw before the third day of class</td>
<td>75%</td>
</tr>
</tbody>
</table>
Withdraw the third day of class or after 100%

Financial aid for part-time students will be adjusted to reflect the final number of credits for which the student is enrolled on Thursday, September 14, 2017 for the fall semester or on Monday January 29, 2018, for the spring semester. If enrollment on either one of these dates is for fewer than six credits, no financial aid will be available for the term unless the student is eligible for a Federal Pell Grant.

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.

Tuition refunds:
• Full or part-time students who withdraw from the University may be eligible for a tuition refund.
• Part-time students who drop courses may be eligible for a tuition refund.

### Summer I, 2017 - Withdrawal

- 100% Wednesday 5/10/2017
- 75% Friday 5/12/2017 *
- 25% Monday 5/15/2017 *
  * by 4:30 p.m.

### Summer II, 2017 - Withdrawal

- 100% Sunday 6/4/2017
- 75% Monday 6/12/2017 *
- 25% Monday 6/19/2017 *
  * by 4:30 p.m.

### Summer III, 2017 - Withdrawal

- 100% Monday 7/17/2017
- 75% Tuesday 7/25/2017 *
- 25% Tuesday 8/1/2017 *
  * by 4:30 p.m.

#### Summer 17 Specially Timed Courses -Refund schedule

- 100% Before the first day of class
- 75% During the first 25% of the class
- 25% Between 25% and 50% of the class

Students who withdraw from specially timed courses for the Summer 17 or the Summer 18 session and have Carroll aid and/or aid other than Title IV are asked to contact the Business Office at 262 524-7337 for information regarding the amount of Carroll aid and/or aid other than Title IV earned.

### Tuition Refunds for Winter 2018

<table>
<thead>
<tr>
<th>Percent of Refund</th>
<th>Withdraw Date on or before:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three or four credit courses:</td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td>January 1, 2018</td>
</tr>
<tr>
<td>75%</td>
<td>January 3, 2018</td>
</tr>
<tr>
<td>50%</td>
<td>January 5, 2018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Two credit courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>January 1, 2018</td>
</tr>
<tr>
<td>75%</td>
<td>January 3, 2018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>One credit course and specially timed courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>Before the first day of class</td>
</tr>
<tr>
<td>50%</td>
<td>Before the second day of class</td>
</tr>
</tbody>
</table>
### Refund Policies

**All refunds will be reduced by a 5% administrative fee (not to exceed $100).**

**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.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Summer I, 2018 - Withdrawal on or before</th>
<th>Summer II, 2018 - Withdrawal on or before</th>
<th>Summer III, 2018 - Withdrawal on or before</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>Tuesday 5/8/2018</td>
<td>Wednesday 5/30/2018</td>
<td>Thursday 7/12/2018</td>
</tr>
<tr>
<td>75%</td>
<td>Thursday 5/10/2018 *</td>
<td>Thursday 6/7/2018 *</td>
<td>Friday 7/20/2018 *</td>
</tr>
<tr>
<td>25%</td>
<td>Monday 5/14/2018 *</td>
<td>Thursday 6/14/2018 *</td>
<td>Friday 7/27/2018 *</td>
</tr>
<tr>
<td></td>
<td>* by 4:30 p.m.</td>
<td>* by 4:30 p.m.</td>
<td>* by 4:30 p.m.</td>
</tr>
</tbody>
</table>

**Summer 18 Specially Timed Courses -Refund schedule**

- 100% Before the first day of class
- 75% During the first 25% of the class
- 25% Between 25% and 50% of the class

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.

**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.

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BookCHARGE

Charge Textbooks and Supplies to your Student Account

Students who wish to use BookCHARGE are required to sign the BookCHARGE Authorization Form.

BookCHARGE allows students to charge textbooks and supplies, up to $750.00 each semester, directly to their student account on the following terms and conditions. BookCHARGE is available, 10 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. BookCHARGE is available for rental textbooks, but not for the purchase of textbooks online. Any fees you incur for not returning a rental textbook will be charged to the credit card on file with Follett, 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 at the bookstore 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.
Student Resources

Student Affairs
Resources for Graduate Students
Todd Wehr Memorial Library
Public Safety
Counseling Services

Personal confidential counseling is available to all full-time 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.
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. Requested accommodations will be approved or disapproved by the Disabilities Services Office 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 Disabilities Services Office.
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.
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.
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 programing 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, Campus Recreation, or working for the Orientation, Student Activities or RecSports staffs. Student Activities provides programs and services ranging from orientation to community service projects, or 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 includes: Competitive Sports- including Intramural and Club Sports, Group Fitness, outdoor recreation equipment, RecSports Special Events, as well as the Cheer and Dance Teams. Ganfield Gymnasium has a multi-purpose court, a Dance Studio, a bouldering wall, and is home to indoor and outdoor equipment available for check-out. The new RecSports Fitness Center in Prairie Hall hosts cardio equipment, selectorized weight equipment, plate-loaded and free weight areas. The Carroll YMCA is a fitness center available 24/7/365 via Carroll ID card swipe. Intramural Sports leagues include: men's and women's basketball, flag football, indoor soccer, dodgeball, and volleyball. Several tournaments in a variety of sports are also offered each semester. The Department of Recreational Sports also 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. Visit www.carrollurecsports.com for hours, events and details.

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.

Volunteer Center

Carroll’s Volunteer Center 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.
Resources for Graduate Students

The Learning Commons is a student-centered academic community that provides opportunities to connect and collaborate with peers. In the Learning Commons, peer educators help fellow students in a variety of academic areas and with career development needs.

We offer graduate students Workshops on Demand, writing assistance through the Writing Center, equipment checkout, and collaborative space for students to complete group work.

Click here for a link to the Learning Commons web page.
**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**

Libraries today are service institutions. Therefore, the Carroll Library provides not only access to appropriate print, video, sound and electronic resources, but also to a range of services geared toward student success. In addition to the materials held in or accessible through the Carroll Library, the Library also provides access to materials held across the state, the nation and the world through a variety of online services, nearly all of which are available from off campus. Strong consortia relationships and InterLibrary Loan ensure the availability of supplemental materials to enrich study and research for Carroll students.

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. Liaisons also provide students with specialized assistance for in-depth research projects.

The Library provides a safe, clean and comfortable environment with state-of-the-art 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. The Library is open 101 hours per week when class is in session during the fall and spring semesters. Hours are reduced during the summer, winter, or when classes are not in session.

**Curriculum Materials Center (CMC)**

The CMC, located on the main level of the Library, is dedicated to the needs of education students on campus. The CMC collection is comprised of children’s literature and curriculum materials appropriate for education levels K-12.

**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, 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 the Archives Manager.

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.
Admission

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 graduate-level work is essential.

PROCEDURES FOR GRADUATE ADMISSION

Applicants submit a Carroll University Graduate Studies Application. Applications and credentials for admission to the graduate programs must be submitted for processing to the Carroll University Office of Admission located in Voorhees Hall.

Specific acceptance policies may be established by individual graduate programs. See specific graduate program.

General requirements for admission into any advanced graduate program at Carroll University include the following criteria:

1. An undergraduate degree in the professional field or a field related to the applicant's profession. Applicants could be required to take prerequisite courses before being accepted into a graduate program to ensure a base of knowledge in the area in which they wish to pursue graduate work.
2. Official transcript or listing of undergraduate and other graduate or continuing education work and grades, where appropriate.
3. A minimum undergraduate grade point average of 2.5. An individual program has the option of setting a higher minimum grade point average; see specific graduate program area. Some programs may allow an applicant to take up to 9 credits as a non-degree graduate student prior to being formally admitted to the graduate program.
4. Standardized test(s) when appropriate to the field of study.
5. Additional written materials as required by an individual graduate program.
6. An application fee may be required.
7. A technical standards form and/or a Department of Justice background check may be required for certain graduate programs.
8. In some graduate programs, students are required to have medical insurance coverage. See specific graduate program.

Acceptance decisions are made on applications when they are complete. In some instances, the files of prospective students are referred to a program's Graduate 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.

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.

APPLICATION DEADLINE

See specific graduate program as appropriate.

TRANSFER ADMISSION

Credit for transfer work varies per program. See specific program for transfer policy guidelines. Up to nine graduate or non-degree graduate level credits may transfer. Transfer equivalencies will be determined by the director. Only courses with a grade of B or better will be considered for transfer credit.

RETURNING STUDENTS

After the lapse of one full academic year, students returning to Carroll must reapply for graduate admission. A student has a total of seven years to complete any graduate program. Upon re-acceptance, the student will receive a letter indicating his or her remaining time to complete the program.

Note: Graduate programs admit qualified students regardless of race, color, creed, sex, age, sexual orientation, national or ethnic origin, or disability that does not interfere with the performance of professional practice.
About Carroll University

Carroll University Contact

Carroll's Mission Statement and Four Pillars of Education

University Corporation 2017-18 Carroll University

Carroll University Graduate Faculty 2017-18
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 Mission Statement and Four Pillars of Education

Wisconsin's Oldest College

In 1841, settlers living in the Wisconsin Territory community of Prairieville established the academy that five years later would become Carroll College. Soon after its founding, Carroll affiliated with the Presbyterian Church and adopted the motto, "Christo et Litteris," which means "for Christ and Learning." The University's early patrons believed that higher education would serve as an instrument for civilizing the wilderness, spreading the Gospel and planting the roots of democracy deep in the prairie soil. They also sought to provide for the prosperity of their children and future generations. As Wisconsin's oldest institution of higher learning, Carroll is known today as the "Pioneer College."

Carroll became Carroll University in 2008.

Throughout its history, the hallmarks of the Carroll educational experience have been teaching excellence and individualized attention. These values find expression in The Mission Statement and The Four Pillars of a Carroll University Education.

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.

**Officers**

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair</td>
<td>James G. DeJong ’73</td>
</tr>
<tr>
<td>Chair Emeritus</td>
<td>Pershing E. MacAllister ’40</td>
</tr>
<tr>
<td>Vice Chair</td>
<td>Jose A. Olivieri ’78</td>
</tr>
<tr>
<td>Treasurer</td>
<td>James M. Schneider ’74</td>
</tr>
<tr>
<td>Secretary</td>
<td>Charmaine L. Ponkratz ’77</td>
</tr>
<tr>
<td>President of the University</td>
<td>Cindy Gnadinger</td>
</tr>
</tbody>
</table>

**Trustees**

- Ted H. Baker ’71, Board of Directors, National Stock Exchange, Naples, Florida
- Deborah A. Block ’74, Senior Pastor, Immanuel Presbyterian Church, Milwaukee, Wisconsin
- Christy L. Brown, CEO, Girl Scouts of Wisconsin Southeast, Milwaukee, Wisconsin
- Kevin J. Buehler, Retired CEO, Alcon Laboratories, Fort Worth, Texas
- Dorval R. Carter ’79, President, Chicago Transit Authority, Chicago, Illinois
- Reynolds R. Challoner ’64, President, NEW Paradigm Advisors LLC, Sanibel, Florida/Green Bay, Wisconsin
- Jefferson V. DeAngelis ’80, President/CIO, Northwest Passage Capital Investors, LLC., Milwaukee, Wisconsin
- Guy J. Di Spigno ’69, President, Executive Synergies, Inc., Singer Island, Florida
- Susan Edwards, President & CEO, Prohealth Care, Waukesha, Wisconsin
- Cindy Gnadinger, President, Carroll University, Waukesha, Wisconsin
- Timothy J. Hando ’86, Senior Vice President-Investments, The Hando Feldman Adams Group, UBS Financial Services, Inc., Bethesda, Maryland
- Russell W. Harland ’83, Physician, ProHealth Care Medical Associates, Waukesha, Wisconsin
- Lynda M. Johnson ’80, Assistant Treasurer, Harley-Davidson, Milwaukee, Wisconsin
- Pershing E. MacAllister ’40, Chairman of the Board, MacAllister Machinery Company, Indianapolis, Indiana
- Cindy L. Mayoras ’09, Alpharetta, Georgia
- Alice Crofts Morava ’52, Vice President and CEO, Stuart W. Johnson & Co., Inc. Lake Geneva, Wisconsin
- Jose A. Olivieri ’78, Partner, Michael Best & Friedrich LLP, Milwaukee, Wisconsin
- Charmaine L. Ponkratz ’77, Vice President Marketing (retired), Marshall & Ilsley Corporation, Green Bay, Wisconsin
- Dennis G. Punches ’58, President, Payback, L.P., Waukesha, Wisconsin
- Renee H. Ramirez, Executive Director, Waukesha County Community Dental Clinic, Waukesha, Wisconsin
- Mark A. Roble, Chief Risk Officer, Robert W. Baird, Milwaukee, Wisconsin
- James M. Schneider ’74, Executive Chairman, Horizon Bank, Austin, Texas
- Timothy W. Sullivan ’75, Chief Executive Officer, Allied Specialty Vehicles, Orlando, Florida
- Ty R. Taylor, President and CEO, Waukesha State Bank, Waukesha, Wisconsin
- Joseph P. Zvesper ’76, Chairman, President & CEO, American Appraisal Associates, Inc., Milwaukee, Wisconsin

**Alumni Representative**

- Sandra L. Cunningham, ’78, Director, Versiti, Inc./ Blood Center of Wisconsin, Milwaukee, Wisconsin

**Honorary Life Trustees**

- Charles W. Anderson ’59, Brookfield, Wisconsin
- Robert V. Cramer, Louisville, Kentucky
- Joan Hardy, Milwaukee, Wisconsin
- L.B. Hardy, Milwaukee, Wisconsin
- Lee Melville ’50, Waukesha, Wisconsin
- Richard H. Miller, Milwaukee, Wisconsin
### Carroll University Graduate Faculty 2017-2018

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree and Institutions</th>
</tr>
</thead>
</table>
| Cindy Gnadinger, 2017    | President B.S., Western Kentucky University M.Ed., University of Louisville Ed.D., University of Louisville Joanne Passaro, 2007 Provost and Vice President for Academic Affairs B.A., Ph.D., Duke University Monika Baldridge, 2004 Interim Program Director of Physician Assistant Studies Associate Professor of Biology B.S., Marquette University Ph.D., University of Wisconsin-Milwaukee David Bazett Jones, 2012 Assistant Professor of Physical Therapy B.S., University of Wisconsin - LaCrosse M.S., Ball State University Ph.D., University of Wisconsin - Milwaukee Daniel Becker, 2006 Assistant Professor of Graphic Communication 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 Steven C. Blaiek, 2017 Dean of the School of Business B.A., University of Wisconsin-Green Bay M.S., University of Wisconsin-Green Bay Ph.D., University of Wisconsin-Madison Nicole Boyington, 2016 Academic Fieldwork Coordinator and Clinical Assistant Professor of Occupational Therapy B.A., St. Ambrose University M.O.T., St. Ambrose University O.T.D Chatham University Jessica M. Brown, 2017 Assistant Professor of Exercise Physiology B.A., Benedictine College Ph.D., Iowa State University Dennis M. Debrecht, 1984 Associate Professor of Economics B.A., Benedictine College Ph.D., Iowa State University Sara Deprey, 2000 Director and Associate Professor of Physical Therapy B.S.P.T., M.S.P.T, Finch University of Health Sciences/The Chicago Medical School D.P.T., MGH Institute of Health Professionals April Doebert-Fischer, 2016 Clinical Assistant Professor of Occupational Therapy B.A., Concordia University M.O.T., Concordia University Rose Ann Donovan, 2002 Assistant Professor of Education B.S., University of Wisconsin-Madison M.A., Silver Lake College Vickie Ericson, 2015 Instructional Faculty-Laboratory Coordinator of Physical Therapy B.S. Northern Illinois University Michael G. Levas, 1985 Associate Professor of Business B.S., M.B.A., Northern Illinois University Wendie Leveille, 2017 Clinical Assistant Professor of Occupational Therapy B.S.O.T., Concordia University - Wisconsin O.T.D., Concordia University - Wisconsin Marissa Liveris, 2017 Didactic Coordinator, Clinical Assistant Professor of Physical Assistant Studies B.S., B.A. Loyola University, Chicago M.M.S.P.A.S Northwestern University Amy E. McQuade, 2010 Clinical Assistant Professor of Physical Therapy B.S., Michigan State University M.P.T., University of Wisconsin Ph.D., Medical College of Wisconsin Michael G. Mortensen, 2011 Senior Lecturer in Graphic Communication B.Arch. University of Wisconsin - Milwaukee M.Arch University of Houston Sara North, 2012 Clinical Assistant of Physical Therapy and Clinical Coordinator B.S., University of Wisconsin - Madison D.P.T., Northwestern University Gary L. Olsen, 1975 Associate Professor of Accounting B.S., Northern Michigan University M.B.A., University of Illinois Ph.D., Marquette University Thomas Pahinke, 2006 Interim 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 Lindsey Palmen, 2016 Lecturer, Physical Therapy B.S., University of Wisconsin-Madison D.P.T., Carroll University Nicole Papermaster, 2016 Clinical Assistant Professor of Physician Assistant B.S.P.A., University of Wisconsin-Madison M.P.A.S., PA-C, University of Wisconsin - Madison Karma Peters, 2016 Clinical Assistant Professor of Physical Therapy B.S., Carroll University M.P.T, Carroll University D.P.T., College of St. Scholastica 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 Lenny Ramsey, 2016 Assistant Professor of Physical Therapy B.S., Utrecht University M.S., Utrecht University Ph.D., Washington University Wilma Robinson, 2001 Associate Professor of Education B.A., Howard University M.P.A., University of Wisconsin-Oshkosh Ph.D., University of Wisconsin-Madison
Mark R. Erickson, 2003
Clinical Associate Professor of Physical Therapy
B.S., University of Wisconsin-LaCrosse
M.A., University of Minnesota
D.Sc.P.T., Andrews University

Sarah E. Esveldt, 2011
Senior Lecturer in Business, Accounting and Economics
B.S., Central Michigan University
M.B.A., Keller Graduate School

Kimberly K. Hofkamp, 2005
Assistant Professor of Education
B.S., University of Wisconsin-Madison
M.A.E., Silver Lake College

Jane F. Hopp, 1994
Professor of Computer Science
B.S., M.S., East China Normal University
Ph.D., University of Illinois at Chicago

Chenglie Hu, 2001
Assistant Professor of Computer Science
B.S., M.S., University of Wisconsin-Madison
Ph.D., University of Wisconsin-Madison

Catherine E. Jorgens, 2006
Risk Manager
Lecturer in Business
B.A., University of Wisconsin-Madison
J.D., University of Wisconsin School of Law

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

Kathrin 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

Gregory A. Kuhlemeyer, 2000
Professor of Business
B.S., Western Illinois University
M.B.A., Ph.D., University of Tennessee- Knoxville

Jeffrey T. Kunz, 1981
Assistant Professor of Accounting
B.S., St. Norbert College
M.S., University of Wisconsin-Whitewater

Robert E. Schellinger, MD, 2011
Medical Director of the Physician's Assistant Program
B.S., University of Wisconsin-Milwaukee
M.D., Medical College of Wisconsin

Marie S. Schwerm, 2011
Lecturer in Computer Science
B.A., Mount Mary College
M.S., Marquette University

Kathleen A. Shields, 2005
Clinical Assistant Professor of Physical Therapy
and Clinical Coordinator
B.S.P.T. University of Wisconsin-Madison,
M.S., University of Wisconsin-Milwaukee

Jeff Sischo, 2013
Clinical Assistant Professor of Physical Therapy
B.S., University of Wisconsin - Madison
DPT., Marquette University

Daniel Shackelford, 2017
Assistant Professor of Exercise Science and
Exercise Physiology
B.S., University of Northern Colorado
M.S., University of Northern Colorado
PhD, University of Northern Colorado

Rachel L. Stickles, 2008
Senior Lecturer in Education
B.S., Carroll College
M.A., California State University-Long Beach
Ed.D., University of Southern California

Lani R. Stockwell, 2014
Director and Clinical Assistant Professor of
Occupational Therapy
B.S., Weber State University
MSOT, Washington University, St. Louis
OTD, Creighton University

Carol D. Tallarico, 2014
Professor of Business, Accounting, and Economics
Professor of Economics
B.A., M.A., DePaul University
Ph.D., University of Illinois at Chicago

Julie VonDerVellen
Lecturer in Graphic Communication
B.S., Edgewood College
M.A., M.F.A., University of Wisconsin - Madison

Kimberly White, 2009
Associate Professor of Education
B.S.B.A., M.Ed., The Ohio State University
Ph.D., University of Wisconsin

Mary Ann Wisniewski, 2001
Professor of Business
B.A., Alverno College
M.S., University of Wisconsin-Milwaukee
Ph.D., University of Wisconsin-Madison
Note to Students

This catalog provides general information about Carroll University graduate programs, 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 graduate careers.

It is necessary in the general administration of the University to establish requirements and regulations governing the granting of degrees. Academic advisors, other faculty, and academic staff members are available to aid students in understanding the requirements and regulations. It is the student's 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, per individual graduate program policy, students may follow the requirements in effect at the time they entered or they may follow the changed 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 result in 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 by the program director with approval of the college dean.

The University reserves the right to make other necessary changes without further notice.
### Course Descriptions

**Entry-Level Doctor of Physical Therapy Program**

- **PTH400: Foundations of Professional Practice (3 hours)**
  - 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)

- **PTH401: Statistical and Research Methods (3 hours)**
  - 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)

- **PTH404: Biomechanics (3 hours)**
  - 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)

- **PTH405: Neuroscience (3 hours)**
  - 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)

- **PTH406: Exercise Physiology (3 hours)**
  - 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: Entry-Level Physical Therapy Program Standing.

- **PTH408: Introduction to Patient Management (3 hours)**
  - 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. Prerequisite: Entry level in DPT program, CPR and First-Aid certified. (FA)

- **PTH411: Foundations of Clinical Research (2 hours)**
  - This course continues to build on previously taught concepts of evidence-based practice but emphasizes appraisal of the literature and application to clinical practice. Learners will be introduced to methods of appraisal across the patient-client management spectrum. They will perform comprehensive appraisals of research articles, both under the guidance of faculty and individually. Learners will practice applying the best evidence to clinical scenarios while considering its limitations. Prerequisite: PTH401. (SP)

- **PTH412: Tests & Measures (3 hours)**
  - 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)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
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<tbody>
<tr>
<td>PTH414</td>
<td><strong>Advanced Kinesiology (3 hours)</strong></td>
<td>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)</td>
</tr>
<tr>
<td>PTH416</td>
<td><strong>Therapeutic Exercise (4 hours)</strong></td>
<td>This course continues to develop fundamental knowledge about the adaptability of human physiological systems in meeting a range of exercise demands. Areas covered include therapeutic exercise prescription, flexibility, considerations for aging and pediatric exercise and aquatic exercise. Research evidence regarding how exercise and physical activity impact health, performance, and disease is included. (SP)</td>
</tr>
<tr>
<td>PTH498</td>
<td><strong>Independent Study (1-3 hours)</strong></td>
<td>This course involves independent study of selected areas of physical therapy under the supervision of a faculty member.</td>
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<tr>
<td>PTH500</td>
<td><strong>Physical Agents (4 hours)</strong></td>
<td>The underlying physical and physiological aspects of inflammation, tissue healing, and pain theory are presented and studied in the context of normal, aging, and disease populations. The application and physiological effects of massage, cryotherapy, heat, water, light, sound, and electrical current across gender, race, and the life span are studied. Standard safety practices, communication skills, and typical modality interventions are introduced and integrated into the patient-client management model and applied through clinical simulations that incorporate clinical reasoning, patient/family education, and evidence based practice. (SU)</td>
</tr>
<tr>
<td>PTH501</td>
<td><strong>Advanced Patient Management (3 hours)</strong></td>
<td>This course emphasizes the systematic process of gathering patient data related to multi-system health conditions; critically evaluating the data; developing prognoses and diagnoses; making decisions related to effective use and progression of interventions; and analysis of outcomes for patient progression and discharge planning. Professional practice, patient/client management, and practice management expectations are integrated using a case-based format, organized in a manner consistent with the Guide to Physical Therapist Practice. Critical inquiry, reflection, clinical decision making and communication skills are progressed, and evidenced-based practice is emphasized. (SU)</td>
</tr>
<tr>
<td>PTH506</td>
<td><strong>Motor Control (4 hours)</strong></td>
<td>Current and emerging conceptual frameworks and approaches for assessing and retraining movement in individuals with movement disorders are analyzed in this course. Normal and abnormal postural control and movement disorders will be analyzed across gender, culture and the life span. Students will apply the patient/client management model to detect impairments, activity limitations and participation restrictions, and develop interventions used to address abnormal motor control. In this course students must integrate and apply prior knowledge and patient management skills developed thus far in the Entry-Level Doctor of Physical Therapy program. Management of specific central and peripheral nervous system pathology, including diagnosis, clinical course, and prognosis of neurological disorders will be explored in PTH 606 and PTH 635.</td>
</tr>
<tr>
<td>PTH507</td>
<td><strong>Orthopedics I (2 hours)</strong></td>
<td>Orthopedics I is the first of a three-course lecture/laboratory sequence that explores examination, evaluation, diagnosis, prognosis, interventions, and outcomes of patients with musculoskeletal disorders. Prior knowledge and skills are integrated with comprehensive musculoskeletal examination and treatment systems which are introduced and applied through a conceptual approach to primary joints/body regions. Common impairments and functional limitations as well as fundamental musculoskeletal pathology are covered. Clinical reasoning, the Biopsychosocial Model, practice management and evidence based practice are emphasized to prepare students for contemporary practice. (FA)</td>
</tr>
<tr>
<td>PTH508</td>
<td><strong>General Medicine I (4 hours)</strong></td>
<td>General Medicine I is the first course in a two semester sequence that applies the patient client management model to patients with medical or surgical conditions, specifically those which involve...</td>
</tr>
</tbody>
</table>
vascular, cardiac, pulmonary, and acute orthopedic disorders, in the acute and rehabilitation environments. A systems approach is taken to present physiological function and dysfunction from the acute to chronic disease state. The focus of the course is the pathology/disease process, typical manifestations, effects on patient function, and medical and physical therapy management. Clinical decision making skills utilize evidence based practice, and account for psychosocial, cultural, and cognitive aspects of patient care. (SP)

- **PTH509: Introduction to Pharmacology (2 hours)**
  Introduction to Pharmacology will explore the pharmacological basis of therapeutics at a basic science level. The course will draw upon an integration of many disciplines including physiology, cell biology and chemistry to approach drug therapy as an integrative science. The course will focus on understanding basic pharmacological principles as they apply to mechanisms of action and physiological effects of medications. The goal of the course is to provide a direct understanding of basic pharmacology that will facilitate application of physical therapy to the whole patient. (FA)

- **PTH512: Evidence into Practice (2 hours)**
  This course provides learners with opportunities to model the practice of evidence-based physical therapy. Emphasis is placed on critically analyzing and summarizing current literature in order to develop evidence-based clinical tools that can be used for diagnostic and treatment decisions. Advanced topics of clinical outcomes, translational research, and contribution to the evidence are introduced. Prerequisite: PTH401, PTH411. (SU)

- **PTH515: Clinical Internship I (7 hours)**
  Students participate in a full-time internship for seven weeks at clinical facilities affiliated with the Physical Therapy Program. During the internship, students integrate and apply prior knowledge to actively participate in patient management in a supervised environment. Learning is advanced and student performance is assessed. S/U Grading. (FA) Prerequisite: Entry-Level Physical Therapy Program Standing.

- **PTH516: Human Motor Learning (2 hours)**
  The basic principles and theories of motor learning will be studied. The neurological outcome, i.e., neuroplasticity resulting from motor learning will be analyzed. Motor learning applications to future physical therapy skills and practice will be made. Prerequisite: good standing in DPT program. (FA)

- **PTH517: Orthopedics II (4 hours)**
  PTH517: Orthopedics II is the second of a three-course sequence that explores the examination, evaluation, diagnosis, prognosis, interventions, and outcomes for patients with musculoskeletal disorders. Prior knowledge and skills are integrated with comprehensive musculoskeletal examination and treatment systems introduced in Musculoskeletal Disorders I and applied through a regional approach beginning in the lower extremity and progressing proximally through the lumbar spine and shoulder complex. Common impairments and functional limitations as well as complex musculoskeletal pathology are covered. Clinical reasoning, the Biopsychosocial Model, practice management and evidence based practice are emphasized to prepare students for contemporary practice. (SP)

- **PTH520: Professional Practice I (2 hours)**
  Professional practice expectations and practice management expectation concepts are broadened and applied more specifically to patient care in a manner consistent with contemporary clinical practice. Primary emphasis includes application of communication, teaching and ethics to understanding and working with various populations across the lifespan. This course also examines the administration, management and regulations surrounding various practice settings. (SU) Prerequisite: Entry-Level Physical Therapy Program Standing.

- **PTH521: Teaching Laboratory Practicum I (2 hours)**
  Consistent with the Physical Therapy Program and TLP philosophies, curricular philosophy, and Program goals and objectives, PTH 521 provides students with opportunities to further develop clinical skills through experiential learning in a context of wellness and prevention across the life span under the direct supervision of faculty. The course is based on the service-learning model which combines community service with specific learning objectives, preparation and reflection. Service learning opportunities occur with an apparently healthy population to provide an
understanding of normal client presentation and performance. Service-learning opportunities take place on and off campus. (SU) Prerequisites: Entry-level Physical Therapy Program Standing.

- **PTH522: Evidence Based Decision Making (2 hours)**
  This course provides learners with opportunities to collaborate with currently practicing clinicians in order to produce clinical resources that will provide best evidence and improve patient care. Learners teach clinicians how to use and revise these resources. Learners will also reflect on previous clinical experiences and decision making processes in context of best evidence and clinical reasoning models. (SP)

- **PTH525: Systems Development (2 hours)**
  The purpose of this course is to introduce typical development of the primary systems of motor, cardiopulmonary, integumentary, gastrointestinal and genitourinary, neurological, endocrine, cognitive, and social from embryo through system maturity. (SU)

- **PTH530: Professional Practice II (2 hours)**
  The concepts of professional practice and practice management expectations will be applied to the older adult using acute care and long term care services. Topics unique to the older adult population including identification of health care needs, the impact of health care policy, reimbursement, economic, legal and social issues will be explored. An emphasis on Medicare and Medicaid regulation, documentation, and reimbursement issues are examined in depth. Consultation and agencies appropriate to the older adult will be identified. Students analyze literature aimed at promoting evidenced based practice for the older adult population. (SP) Prerequisites: Entry-level Physical Therapy Program Standing.

- **PTH531: Physical Therapy Teaching Laboratory Practicum II (2 hours)**
  PTH531 expands on the foundation from PTH521 in the development of professional, patient and practice management skills. Students are provided with opportunities to further develop, apply and integrate cognitive, psychomotor and professional behavior skills in the examination, evaluation and treatment of clients. An experiential, service-learning model is used to provide experiences in several environments that reflect multiple levels of care and wellness / prevention. All practical experiences occur under the supervision of faculty in consultation with community partners and parallel previous and current didactic course work. Service learning opportunities expand from the foundation of PTH521 to include both older adult clients and clients with physician diagnosed medical conditions. (SP) Prerequisites: Entry-level Physical Therapy Program Standing.

- **PTH535: Applied Human Behavior (1 hours)**
  The basic principles of human behavior will be identified and applied prior to Clinical Internship I. Specific applications will be made to the practice of physical therapy, education, behavior modification, and behavior dysfunction. (FA)

- **PTH598: Independent Study (1-3 hours)**
  This course involves independent study of selected areas of physical therapy under the supervision of a faculty member.

- **PTH606: Neurological Disorders (4 hours)**
  The pathology, diagnosis, clinical manifestations, clinical course, and prognosis of neurological disorders are explored. Current and emerging conceptual frameworks and approaches for retraining movement in individuals with neurological disorders are analyzed. Instruments, tests, screens, and evaluations to detect impairments, activity limitations and participation restrictions, and therapeutic interventions used in the treatment of persons with neurological disorders are investigated. Students must also apply basic knowledge and patient management skills developed during earlier courses in the Entry-Level Graduate Program in Physical Therapy.

- **PTH607: Orthopedics III (3 hours)**
  Building upon PTH507: Orthopedics I and PTH517: Orthopedics II, PTH607 explores the examination, evaluation, diagnosis, prognosis, and interventions for patients with musculoskeletal disorders in an integrated manner. Prior knowledge and skills are integrated with a standardized musculoskeletal examination scheme that is introduced and thoroughly applied to patients with elbow, wrist/hand, thoracic and cervical spine, temporomandibular conditions and less common
musculoskeletal pathology. Chronic pain is explored in depth and advanced orthopedic topics pertinent to contemporary practice are integrated. Autonomous practice consistent with the entry-level Doctor of Physical Therapy degree is promoted by emphasizing clinical reasoning, evidence-based practice, and professional values. (FA)

- **PTH608: General Medicine II (4 hours)**
  General Medicine II covers physiology, pathology, evaluation, assessment, and treatment intervention for patients with a variety of medical conditions relevant to physical therapy. Specific evaluation and treatment interventions with respect to wound care and prosthetics will be discussed. The course structure is based on a review of pertinent physiologic systems, common pathologies, and comprehensive treatment of the involved patient. Instruments, tests, screens, and evaluations to detect impairments, activity limitations and participation restrictions, and therapeutic interventions used in the treatment of these disorders are investigated. Students must apply basic knowledge and patient management skills developed during earlier courses in the program. (FA) Prerequisites: Entry-Level Physical Therapy Program Standing.

- **PTH611: Clinical Internship II (12 hours)**
  Students participate in a full-time internship for twelve weeks at clinical facilities affiliated with the Physical Therapy Program. During the internship, students integrate and apply prior knowledge to actively participate in patient management in a supervised environment. Learning is advanced and student performance is assessed. (SU) (S/U grades) Prerequisites: Entry-Level Physical Therapy Program Standing.

- **PTH614: Clinical Internship III (16 hours)**
  Students participate in sixteen weeks of full-time terminal internship at clinical facilities affiliated with the Physical Therapy Program. The sixteen weeks are typically divided into two separate eight-week internship rotations. During the internship, a student's ability to apply and integrate the knowledge and skills consistent with best care and autonomous practice that have been developed during Phase I and II of the Program. (SP)

- **PTH620: Professional Practice III (2 hours)**
  The concepts of professional practice expectations and practice management expectations will be applied to contemporary physical therapy practice. Primary emphases include management science, finance, professional socialization, and legal aspects of practice. Specifically, organizational structure and behavior, negotiation theory, accounting and finance, marketing, human resource, quality and risk management principles, and the physical therapist as consultant are introduced and applied. Analysis of the current healthcare environment and the impact of health care policy and reimbursement on physical therapy are explored. (FA) Prerequisites: Entry-level Physical Therapy Program Standing.

- **PTH621: Physical Therapy Teaching Lab Practicum III (2 hours)**
  PTH621 progresses from the foundation of PTH521 and PTH531 to provide students with opportunities to meet multiple community needs and further develop clinical skills and experiences. Experiences involve clients with physician diagnosed medical conditions, including clients with cognitive disorders that require a high level of integration and critical thinking for client management. An experiential, service-learning model is used to provide experiences in several environments that reflect multiple levels of care and wellness/prevention. All practical experiences occur under the supervision of faculty in consultation with community partners and parallel previous and current didactic course work. (FA) Prerequisites: Entry-Level Physical Therapy Program Standing.

- **PTH635: Pediatric Care (2 hours)**
  Pediatric diagnosis, conditions and syndromes impacting typical development will be presented in this class. Physical Therapy examination, evaluation, interventions and outcomes related to atypical development will be identified and applied to various environmental/social contexts, cultures and lifespan. (FA)

- **PTH698: Independent Study (1-3 hours)**
  This course involves independent study of selected areas of physical therapy under the supervision of a faculty member.
Graduate Courses in Education

- **EDU601: Educators as Researchers (RC) (3 hours)**
  The course uses a variety of approaches to study today's complex educational and professional issues for students to become familiar with both quantitative and qualitative approaches to inquiry. Students develop an understanding of multiple research designs to become critical consumers of research. They also identify a research question, develop a research proposal, and begin writing their master's thesis. Students initiate mentoring relationships, which will be maintained throughout the research process. They attend library, statistical and formatting sessions to support further inquiry for thesis development. Course outcomes include submission of a complete research proposal/plan, timetable for thesis completion, Institutional Review Board form, and final draft of Chapter One. Prerequisite: minimum of 18 graduate credits. (FA, SP)

- **EDU602: Framing and Researching the Problem (RC) (3 hours)**
  Focus is on conducting research as a basis for improving professional practice. Students extend research projects by refining the literature review, research design and methodology, timetable for thesis completion, and begin to collect data that will serve as a foundation for EDU 603. Support is continued through mentorships, library, statistical, and formatting sessions. Course outcomes include final drafts of Chapters Two and Three, and a timetable for thesis completion. (FA, SP)
  Prerequisites: EDU 601.

- **EDU603: Research Design, Data Collection, Analysis (RC) (3 hours)**
  Students broaden their professional identities to include researcher as part of that identity. Student researchers collect and analyze data and complete the final thesis report and participate in a symposium to share their research with their peers and the Carroll community. Course outcomes are symposium participation, completed thesis and library deposit, and a scholarly article for publication based on the research findings. Prerequisites: EDU601; 602. (FA, SP)

- **EDU605: Thesis Preparation (RC) (3 hours)**
  Students who are unable to complete the outcomes while enrolled in EDU 603 are required to fill out an incomplete form (available online) to be signed by the research facilitator to be approved and submitted to the registrar. If approved, the student researcher will have eight weeks to complete the thesis. If unable to complete, the student must submit an action plan and a timeline for the completed thesis for approval to the class research facilitator. If approved, the student will register for EDU 605, Thesis Preparation. Students can register each semester thereafter, if there is evidence of satisfactory progress demonstrated through an action plan approved by the class facilitator. Prerequisites: EDU 601, 602; 603.

- **EDU606: Learning Community Theory and Practice (3 hours)**
  Explores the value of learning in a collaborative setting. Examines theories and key aspects of community development within the learning community and within their workplaces. (Semester 1)

- **EDU607: Introduction to Educational Research (3 hours)**
  In this course students will be introduced to action research in the educational environment. The course covers all stages of the action research process and emphasizes the value of data in making decisions regarding teaching and learning.

- **EDU608: Classroom as Community (3 hours)**
  Examines the relationship between individual and the group as it relates to teaching and learning. Explores sociocultural forces which influence the school environment, classroom culture, teacher and students. (Semester 2)

- **EDU609: Educational Research II (3 hours)**
  This course extends refinement of student research projects through the development of a literature review. Students will also develop a plan for research design and methodology.

- **EDU611: Culturally Relevant Teaching (3 hours)**
  Examines the sociocultural context of teaching and learning. Explores theories and practices which foster an equitable learning environment for learners from diverse backgrounds. (Semester 1)

- **EDU612: Authentic Learning and Assessment (3 hours)**
Defines learning, assessment and education in a standards-based system. Identifies elements of learning and assessment with a focus on a balanced assessment process and data driven instruction. (Semester 2)

- **EDU613: Educational Leadership Theory and Practice (3 hours)**
  In this course students will examine multiple organizational and leadership theories as well as leading and executing organizational change principles. Students will use quantitative and qualitative data, appropriate research methods, technology and information systems to develop a long range continuous improvement plan for a school/district. Through the symbolic, structural, human resource, and political lenses of change management, students will develop problem-solving skills and knowledge of strategic, long-range planning and operational planning to advocate for policies and programs that promoted equitable learning opportunities and success for all students.

- **EDU614: Educational Research III (3 hours)**
  In this course students will develop advanced knowledge of action research as they continue to implement an action research study. Student will collect data and begin to analyze findings.

- **EDU615: Educational Leadership Theory and Practice III (3 hours)**
  Continues the study of the value of organizational and leadership theories with an emphasis on the cultural and historical influences, knowledge and belief systems which shape educational organizations. (Semester 4)

- **EDU616: Educational Research IV (3 hours)**
  Students complete research project analysis and formulate conclusions. A written and formal presentation of the research project culminates the research process.

- **EDU617: Educators as Leaders (3 hours)**
  Application of leadership organizational theories in practice. Students develop or engage in active leadership roles in their educational contexts. (Semester 3)

- **EDU618: Mathematical Reasoning and Leadership for Elementary Specialists: K-5 Learning Trajectories (3 hours)**
  Mathematics content and pedagogy designed to equip elementary teachers to become mathematics teacher-leaders in school settings. Includes readings, reports, and syntheses of research literature on teaching and learning K-12 mathematics. Attention given to number concepts and problem solving. Focus on incorporating NCTM Principles and Standards and Common Core State Standards in Mathematics to establish learning trajectories at the K-5 level.

- **EDU619: Numbers and Operations: K-5 Mathematical Tasks (3 hours)**
  An exploration of content and methods relevant to whole number and rational number arithmetic in the K-5 classroom with an emphasis on how children learn. Topics include an exploration of place value, arithmetic operations, fractions, decimals, percents, with emphasis on concepts, operations, and relations among them. Attention given to error analysis of children's work. Focus on analysis and construction of effective mathematical tasks in teaching number systems and operations at the K-5 level. Prerequisite: EDU618

- **EDU621: Writing Across the Curriculum: Leadership Institute (3 hours)**
  Through demonstration workshops and active participation, participants will experience writing-to-learn strategies that support student understanding without increasing teaching workload. Strategies to motivate students to become better and more powerful writers will be explored and adapted to individual content and grade levels. Educators interested in 3 credits may work with their team, or individually, to develop an Action Plan to help other teachers realize the benefits of writing circles, writing-to-learn and writing workshop.

- **EDU622: Writing Project Practicum (3 hours)**
  Participant's leadership skills will be developed and strengthened. With support from NWP teacher consultants, one might plan, develop and implement workshop demonstrations, collegial studies or professional development.

- **EDU623: The Zen of Collegial Studies (1 hours)**
The Zen of Collegial Studies is a one credit weekend continuity workshop for teacher leaders who participated in the NWP-CU Summer Institute and for teachers who would like to take on a leadership role for the schools or districts. The workshop focuses on the philosophy and management of collegial study groups.

- **EDU625: Teaching the Writing Process (3 hours)**
  Through a variety of exercises, participants focus on their own writing to explore the writing process in developing authors. Basic writing theory is translated into applied writing instruction. Emphasis is on creating a classroom writing environment. Course includes development and assessment of writing portfolios.

- **EDU626: Teacher as Writer-Facilitating Better Student Writing (3 hours)**
  Students continue to deepen and individualize the use of the writing process as a means to curricular reform. Participants define their areas of professional and personal writing expertise, writing and reflecting on their writing and then determining their course of instruction based on their findings and peer response. This process is used to revise classroom practice.

- **EDU627: Algebraic Reasoning: K-5 Discourse and Questioning (3 hours)**
  Specialized mathematical knowledge necessary to support the successful teaching and learning of algebra and number theory. Topics include patterns, functions, algebraic symbols, understanding of equality, variables and unknowns, and modeling real world situations using algebraic language. Focus on the early algebra concepts of functional thinking and generalized arithmetic in relationship to pedagogical practices centered on questioning in the mathematics classroom. Prerequisite: EDU619

- **EDU628: Measurement and Data: K-5 Equity and Technology (3 hours)**
  Specialized mathematical knowledge necessary to support the successful teaching and learning of measurement and data. Topics include measurement, collecting, organizing, displaying, and analyzing data. Attention is also given to learning methods that facilitate appropriate classroom interactions and support the mathematical learning of all students. Prerequisite: EDU627

- **EDU629: Geometry and Spatial Reasoning: K-5 Assessment (3 hours)**
  Specialized mathematical knowledge necessary to support the successful teaching and learning of geometry. Topics include properties of shapes, area and perimeter, volume and surface area, congruence and similarity, geometric transformations, coordinate geometry, and geometric reasoning. Course includes a focus on theory, methods, and techniques of assessment for improving mathematics learning. Prerequisite: EDU628

- **EDU631: Cognitively Guided Instruction in Mathematics-Workshop (CCI) (3 hours)**
  Focuses on children's developmental phases in math/arithmetic skills and problem-solving activities. Engage in hands-on learning and teaching approaches to skill development in the four basic math operations. Share in group activities to produce math materials for classroom use. Emphasis is on math education in all elementary grades K-6.

- **EDU634: Applying Educational Technology in K-12 Classrooms (C&I-C) (3 hours)**
  This course provides practical opportunities to become proficient in 21st century skills, their integration into classroom instruction, and hands-on practice with a variety of technology tools. Students explore current research to support technology in the classroom. Every effort is made to meet the professional and educational needs of the students.

- **EDU639: Identifying Obstacles to Rational Thought to Enhance Advocacy for Self and Others (3 hours)**
  This interdisciplinary course explores thinking and reasoning to expand knowledge about learning environments (e.g., organizations, agencies or institutions) to advance advocacy for self and others. The course is designed for adult, K-16 educators and others who would like to examine societal socioeconomic contextual factors that may impact thinking and reasoning as it relates to schools, society, global issues or everyday life, seeking potential institutional and societal frameworks for change. In addition to exploring legitimate advocacy, analyzing and assessing reasoning and identifying obstacles to rational thought, this course will initiate strategies that enable students to ask essential questions and effectively grasp the logic of a subject or discipline, particularly teaching content through thinking rather than content and then thinking.
- **EDU640: Foundations of Gifted and Talented Education (CCI) (3 hours)**
Characteristics of giftedness are discussed. Several identification methods and programming models are studied, including the Wisconsin Comprehensive Integrated Gifted Programming Model. Students investigate the 5 areas of giftedness as defined by federal and state governments as well as the psychology of giftedness in children and adolescents including cognitive and social-emotional dimensions. Practical strategies for accommodating the needs of gifted and talented learners in the classroom and in the home are explored. Legal issues related to Wisconsin Standards are considered; critical perspectives on gifted education are explored.

- **EDU641: Teaching & Learning Across the Life Span (C&IC; ACE; HED) (3 hours)**
This course examines a wide variety of theories and research that contribute to the understanding of human development and learning, focusing particular attention to the application of developmental theory. Development is explored as a life-span process, influenced by the interaction between the individual and his/her environment. We will study the most important ideas from several theoretical perspectives, and examine patterns of growth, change, and continuity that occur throughout the lifespan. Finally, we will apply theoretical principles to real-life human behaviors.

- **EDU643: Curriculum Making - Past and Present (C&I-C) (3 hours)**
Examines the myriad of elements that determine curricular content and discusses the ways that the social, political, and historical contexts of the times have defined the education children have received in American public schools. Various theories and historical perspectives will be studied in understanding the struggles for and evolution of the American curriculum.

- **EDU644: Education of Gifted & Talented Students - Workshop (CCI) (3 hours)**
Emphasizes meeting the needs of gifted children through curriculum differentiation. Students develop programming strategies and techniques for accommodating gifted learners in the general classroom in ways that are aligned with the Wisconsin Comprehensive Integrated Gifted Programming (Pyramid) Model. Effective instructional practices related to each of the following areas of giftedness are studied: general intellectual, specific academic, creative thinking, leadership, and visual/performing arts.

- **EDU645: Collaboration in the Classroom (ACE) (3 hours)**
Participants examine theory and practice of cooperative learning and other collaborative and community-building strategies and investigate the cooperative learning literature to develop a repertoire of strategies. Strategies are critiqued for application to specific curricula and particular student groups.

- **EDU646: Administration of Adult Education Programs (ACE) (3 hours)**
This course relates administrative theory to current practice in adult continuing education. Topics covered include management styles, effective personal development, the tools of administrative practice, organizational contexts, and ethical decision-making. Effective leadership is distinguished from effective management. Prerequisite: EDU 641 and EDU 647, or consent of instructor.

- **EDU647: Foundations of Adult Education (ACE) (3 hours)**
This course introduces students to a variety of concepts which serve as the foundation of the field of adult education. Topics covered include a definition of adult education, a historical overview of the field, participation and nonparticipation factors, adult education in formal and informal settings. The course also examines six theories of learning as they relate to adult education and begins building the foundation for a theory of adult learning.

- **EDU648: Facilitating Learning for Adults/The Adult as Independent Learner (ACE) (3 hours)**
The course focuses on identifying special needs of the adult learner including the adult as an independent learner. The unique relationship between adult student and facilitator is explored. The course also examines current research and theory relating to successful practice in adult education. Prerequisite: EDU 641 and EDU 647, or consent of instructor.

- **EDU649: Curriculum and Program Development in Adult and Continuing Education (ACE) (3 hours)**
Theory and processes of program planning and curriculum development as they relate to education and training programs designed for the adult learner. The focus is on program
philosophy, program planning models, needs analysis, program design, and evaluation. Prerequisite: EDU 647.

- **EDU650: Sociology of Education (C-IS) (3 hours)**
  An overview of the sociocultural foundations of educational practice in a variety of community environments within the political and economic contexts of society. Focuses on historical ideas, current practices, and future directions in education in relation to major social issues in America. Analyzes the role of schooling in transmitting cultural assumptions about American society and its ideologies. Discusses sociocultural forces which influence schools, teaching and learning. Students review ethnographies and other forms of research to study education as a cultural institution.

- **EDU652: Culturally Responsive Teaching Practice (S-CI) (3 hours)**
  Focuses on what makes an effective learning environment for students of diverse backgrounds as a means for considering ways to improve learning contexts for all children. Examines the many pedagogies and practices which work effectively with students from a variety of backgrounds. Considers learning styles, language behaviors, participant structures, and social interactions all within the sociocultural context of the classroom and the school. Students design lessons/projects/learning environments to fit the sociocultural context of their own classrooms/schools.

- **EDU653: Rethinking At Risk" Students - Creating Promise (S-CI) " (3 hours)**
  'At Risk' is a term which is used to describe an increasingly large population of children who are linguistically, economically or ethnically different from the mainstream. Students critically analyze the educational, social, and political views of children 'at risk' and explore alternatives of viewing such children as 'at promise.' Students address ways to view children's heritage and experiences as strengths rather than deficits, and consider strategies for implementing the 'at promise' concept in classrooms, families, schools, and communities.

- **EDU654: Developing Multicultural and Global Curricula (C&I-S) (3 hours)**
  Explores theoretical, political and cultural issues underlying the development and implementation of curricula with a broader perspective on culture in a global context. In light of these issues, students research and develop curriculum materials relevant to their individual teaching situation. Central course concepts include change, diversity, and interdependence and multiple cultures in a global framework. Students work to enhance both personal and professional literacy in theory, political, cultural and other issues.

- **EDU655: Families in Society (CCI; S-CI) (3 hours)**
  Explores contemporary family issues from the perspective of educators and public and social service workers. Reviews the history of the American family. Considers current family issues and questions related to dynamics and values, cross-cultural perspectives, alternative structures (including teen pregnancy, single parent families, etc.), and poverty (including homelessness, welfare reform, etc.). Examines changing roles of parents, feminization of poverty, divorce, child care outside the home, and family educational and social policies. In addition to academic sources, topics are explored through modern fiction and the media.

- **EDU656: Career Guidance and Counseling through the Adult Lifespan (3 hours)**
  This course focuses on the examination of tools and resources used in career guidance, counseling and development for learners who will influence a career, career change or engage in individual, group or self-career counseling. Participants will explore theories, language, competencies, ethical and legal guidelines, and a value-based multicultural approach. Learners will also explore assessment in career counseling and development e.g., selecting assessment devices, and interpreting test and inventory results in relationship to the career counseling process. Core concepts in the course include societal contextual factors, utilization of existing assessments, and global job searches within the facilitation of career development, and practice. An emphasis will be on the impact of technology, which will include social media and how it has enhanced the career guidance and counseling environment.

- **EDU657: Pedagogy for Alternative Learning Environments (S-CI) (3 hours)**
  This course is designed to explore and develop programs which will meet the needs of students who have not thrived in traditional school settings and thus have been identified as being 'at risk' of not completing school. Research on existing and exemplary programs will be reviewed. An
analysis of the needs of students will be made. Course topics include teaching with technology, building community, providing motivation, establishing a learning environment, and using appropriate assessment strategies.

- **EDU658: Philosophical/Ethical Issues in Education (S-CI) (3 hours)**
  Develops a 'macro' view of the larger foundations affecting and driving education using theoretical, critical, and practical perspectives. By personally and collectively engaging with issues such as moral education, school reform, funding equity, popular culture, and the hidden curriculum, students will increase their situated awareness as a professional, encouraging thought and action beyond the walls of the classroom and the limits of their own history.

- **EDU660: Strategies for Diagnostic Assessment (3 hours)**
  Introductory course in diagnostic assessment. Provides core theoretical and practical background necessary to evaluate students having special education needs. Surveys familiar educational assessment of individuals with disabling conditions. Emphasizes testing for IEP development and applications for the individual contexts of practicing teachers. Teachers will become familiar with a variety of formal and informal assessment techniques enabling them not only to interpret psychological and academic reports, but also to carry on an ongoing assessment of the progress of the special education students enrolled in their class. Practical experience with testing will be provided.

- **EDU661: Language Development/Disorders of the Exceptional Child (3 hours)**
  Presents background information about normal language development of children as a foundation for evaluating speech and language disorders in children. Emphasis will be placed on current methods of identifying language disorders in school age students and methods for modifying classroom activities to enhance language skills of speaking, listening, reading, and writing.

- **EDU662: Instructional Strategies for Students with Special Needs (3 hours)**
  Considers strategies for modifications students with special needs may require to learn content knowledge. Environmental adaptations and varied approaches to delivering instruction will also be presented. Teachers will prepare examples of modifications appropriate for their teaching situations.

- **EDU663: Serving Students Beyond the Classroom (3 hours)**
  Enables teachers to become effective collaborators with parents of exceptional children and with community agencies that also serve the needs of their students. Teachers will also explore effective practices for assisting individuals with disabilities in making successful transitions between grade levels and from school to post-secondary training and/or employment. Representatives of community agencies will be invited presenters in the class.

- **EDU664: Field Experience in Adaptive Education (1 hours)**
  This 40 hour experience can be taken any time during the school year in teachers' own classrooms working with the special education students enrolled in their classes and the special education teachers who also serve these students. Interactive journals with the course instructor will be the primary vehicle for implementing this field work and assessing its success.

- **EDU669: School Leadership Practicum II (1 hours)**
  This second practicum is a collaborative, project-based learning experience designed to field-test the student's ability to apply course concepts. Students focus on issues related to instructional leadership and supervision in an educational environment. Students complete a minimum 75 hours of practicum experience.

- **EDU671: Understanding Self, Race, Class and Gender to Leverage Student Achievement (3 hours)**
  After reading research-based materials, teachers will engage in dialogue and reflection and will be provided strategies and support to address issues of race, class, and gender with their students and colleagues. The course is designed to tap urban teachers' experiences, concerns and dilemmas about serving the needs of urban, low-income and diverse (racially, ethnically, culturally and linguistically) students. Teachers will be reading and writing to learn about how social issues impact student achievement and examine strategies to address classroom challenges more effectively. This course is designed and most appropriate for the urban educator. Others may
enroll with consent of the instructor. This is an online course. High speed internet connection is recommended.

- **EDU672: Literacy Program Evaluation and Implementation (3 hours)**
  This course is designed to provide candidates with opportunities to explore issues and trends related to the administration of literacy programs in PK-12 environments. Candidates will explore the roles and responsibilities of the Reading Specialist through investigation and analysis of textbook and assessment adoption policies and procedures, censorship issues and research-based literacy practices and programs including Culturally Relevant Pedagogy.

- **EDU673: Leadership in Literacy (3 hours)**
  This course provides candidates with opportunities to develop and demonstrate knowledge, skills, and dispositions necessary to create and maintain literacy learning environments that value diversity, continual knowledge acquisition, instructional leadership, innovative and ethical decision-making and reflective practice. Candidates will explore the complexities of literacy in an educational system. Emphasis is placed on research, best practice and educational advocacy to promote student literacy achievement and efficacy.

- **EDU674: Literacy in the Secondary School Content Areas (3 hours)**
  Examines language and literacy strategies as they apply to readers in grades 6-12. Emphasizes strategic reading and writing within discipline specific curricula. Explores textbook analysis, content specific writing instruction and content specific reading comprehension strategies including vocabulary acquisition instruction. A ten hour practicum in the middle school or high school is required. Prerequisite: Certified teacher.

- **EDU675: Emergent Literacy (3 hours)**
  Study of developmentally appropriate ways to facilitate emergent literacy of young children in the context of their lives in a literate community. Topics explored from constructivist and emergent literacy perspectives include early literacy, individualization through personalized learning, differentiation between formal reading programs and emergent literacy approaches, the roles of language experience and phonics in emergent literacy, curricular integration of emergent literacy approaches, and children's literature and language arts. Prerequisite: Consent of instructor if not certified to teach K-12.

- **EDU676: Literacy in the Middle Childhood Grades (3 hours)**
  Focuses on the specific reading needs and development of the middle childhood reader in grades 3-6. Emphasis is placed on strategic, developmental reading. Explores specific comprehension strategy instruction, vocabulary study, word study and genre study related to students at this level. A ten hour tutoring practicum in an elementary school is required. Prerequisites: Certified teacher; successful completion of EDU 675: Emergent Literacy or consent of instructor.

- **EDU677: Issues in Children's and Adolescent Literature (3 hours)**
  Explores social and cultural issues through children's and adolescent literature. Provides in-depth experience in selecting and evaluating appropriate literature from different literary genres for students of varying abilities. Examines best practices which support the use of literature to teach reading in the K-12 classroom. Prerequisite: EDU 675 or consent of instructor.

- **EDU679: Literacy Leadership Practicum (3 hours)**
  This practicum is designed to guide candidates as they apply course concepts in the field. Candidates focus on issues related to instructional leadership and supervision of literacy programs. The practicum is created for the learner to gain first-hand knowledge about a variety of roles in literacy leadership. It allows the candidate to develop a realistic perspective of the demands, needs, and challenges that face instructional leaders in the educational environment. Candidates will partner with a practicing literacy specialist to more deeply understand the theory and practice of literacy leadership. The practicum includes a 60 hour experience in an educational setting.

- **EDU678: Reading Assessment in the K-12 Classroom (3 hours)**
  The study of assessment and instructional techniques for all readers, but especially readers who have special needs. Includes selecting, administering, and interpreting formal and informal assessments to develop, implement, and communicate appropriate instructional plans and intervention to classroom teachers and to parents. Includes analysis and interpretation of
diagnostic data to prescribe instructional programs and activities appropriate to student needs. Explores a variety of activities that address group size, learning styles, developmental levels and student interests. Prerequisite: consent of instructor.

- **EDU680: Practicum in Assessing and Teaching Reading (3 hours)**
  A supervised practicum in assessing and teaching reading to elementary, middle school, and high school students with a variety of abilities in one-to-one, small group, and large group contexts. Includes analysis and interpretation of diagnostic data to prescribe instructional programs and activities appropriate to student needs. Explores a variety of activities that address group size, learning styles, developmental levels and student interests. Includes methods of communicating diagnostic findings to classroom teachers and parents. Prerequisite: EDU 675, EDU 677, EDU 678 or consent of instructor.

- **EDU682: Supervision of Student Teachers- Theory and Practice**
  This DPI-approved workshop qualifies licensed teachers to become cooperating teachers for the clinical experiences of student teachers seeking Wisconsin licenses. The qualification allows for the supervision of students from Carroll and from all other Wisconsin institutions who offer teacher education programs.

- **EDU683: Graduate Internship in Education (1 TO 3 hours)**
  Students are provided with a special field placement to explore individual professional interests in a selected teaching/learning environment. Offered upon request from interested students. Prerequisite: consent of instructor. Note: Teachers adding certification will be required to meet practicum/portfolio requirements.

- **EDU689: Foundations of Community and Equity (3 hours)**
  This course considers: what is community and why we need it? It explores changing demographics, connectedness, equity, diversity, and support systems for caring and mutual development to improve or overcome risks. It also promotes awareness of managing biases for building strengths in children, families and communities constructive communication, conflict resolution, and lifelong learning for meaningful participation to decrease civic ignorance while examining the question, "how should we live together". Students consider different facets of creating community to build strengths for individual growth and resiliency that inspire potentials for fair-mindedness toward justice to facilitate authentic sustainable communities in a fragmented society. (SU)

- **EDU690: Civic Engagement (3 hours)**
  In this course, students will study a new version of civic engagement, one that focuses and develops citizen power through community work and outreach. Drawing on the emerging literature in civic studies, civic renewal, and public work, students will re-imagine civic engagement as an activity undertaken by citizens, as professionals, who work in concert with others across many community institutions and with diverse publics to enact collective action to address complex, community-based problems. A key component of this work is learning how to engage in dialogue and deliberation with people across diverse social networks. Students will develop their potential as citizen professionals to organize in communities and build grassroots power to affect meaningful and productive change. The course is organized around the guiding question, "How should we live together?". (FA)

- **EDU691: Graduate Special Topics (1 TO 3 hours)**
  Involves study of a selected current topic in education which is not offered in regular course offerings. The course may have a regular course format, or it may be offered as a short, intensive workshop. Offered in various terms for credit in a designated content strand.

- **EDU692: Learners and Learning in a Personalized Environment (3 hours)**
  In this course, participants will explore the history, research and current practices around personalized learning. Participants will evaluate and analyze various state supported approaches to learners including Universal Design for Learning, Positive Behavioral Interventions and Supports, and Response to Intervention, as well as differentiation, competency-based learning, proficiency-based learning, and personalized learning. Participants will also explore the shifts in roles from teacher/student to educator/learner, and use design thinking or continuous
improvement practices to create short-cycles of personalized learning in their classrooms, buildings or districts. (FA)

- **EDU693: Educators as Agents of Change (3 hours)**
  The course emphasizes an understanding of the complexities of social change in schools and organizations. Participants examine the relationship between their vision of teaching and learning within the context of their school and district. Participants develop the leadership and advocacy capacity necessary to create and maintain personalized learning environments that value diversity, continual knowledge acquisition, instructive and ethical decision-making, reflective practice, and successful achievement of all school-aged youth. (FA)

- **EDU694: Facilitating in a Personalized Learning Environment (3 hours)**
  This course examines the multi-faceted components of a personalized learning environment as participants consider and reflect on their own practice. Through analysis of teaching and learning theory and practice, participants will identify characteristics of facilitation in personalized learning environments that promotes student agency through self-directed learning. Participants gain an understanding of the importance of creating a learning community that supports opportunity, access and a sense of belonging for all students. Prerequisites: EDU692, EDU693. (SP)

- **EDU695: Evaluating Personalized Learning (3 hours)**
  In this course, participants will explore the full range of assessment types, purposes and methods used to evaluate outcomes in a personalized learning environment. Participants will develop research-based strategies for utilizing data to inform learner goals and instructional practices and explore best practices in helping learners understand their own data. Participants will also develop strategies for communicating assessment results with a variety of stakeholders, including parents, community members and others. Prerequisites: EDU692 and EDU693. (SP)

- **EDU696: Collaborating in a Personalized Environment (3 hours)**
  Participants will evaluate and analyze research around various co-teaching models and approaches, as well as ways to collaborate with colleagues outside of the classroom setting. Participants will also develop skills in utilizing a wide range of communication strategies to cultivate true home-school and school-community partnerships. Participants will also gain an understanding of ways to collaborate with their students, to support collaboration among their students, and to involve students as decision-makers, problem-solvers, and co-designers of their learning. Prerequisites: EDU694 and EDU695 (SU)

- **EDU697: Leadership and Advocacy (3 hours)**
  Today communities exist in a rapidly changing environment where uncertainty has become the norm. A sense of purpose, optimism, conviction, goal direction and a belief in a bright future is essential for community leadership and advocacy for constructive connectedness in a fragmented society. This course presents a framework of resilience for the community leader's facility to smooth progress of wide-ranging development of capacities that build strengths to decrease civic ignorance, find support for opportunities to expand boundaries and diminish or overcome risks • (e.g., capacities for social awareness, constructive communication, problem-solving and vision making). This facility includes fostering help-seeking skills for economic development, partnerships, task-mastery, planning and implementation with cultural flexibility, empathy, caring and adaptive distancing from negative messages and conditions. (SP)

- **EDU698: Independent Study (1 TO 3 hours)**
  Students pursue independent inquiry under the supervision of a faculty member. Offered each term for credit in a designated content strand. A maximum of 6 independent study credits can be applied to the M.Ed. degree. Prerequisite: approval of the chair and the Dean of the College and consent of instructor.

- **HED606: Statistical Methods for the Health Sciences (3 hours)**
  This course provides the student with an overview of topics including experimental design, data presentation and summary, estimation, statistical inference and hypothesis testing, correlation and regression, ANOVA, nonparametric methods, Chi-Square analyses, and computing with SPSS. Applications in the health sciences will be emphasized. Statistical methods for description and analysis provide investigators with useful tools for making sense out of data.
HED607: Graduate Professional Project in Community Health Education I (3 hours)
The nature of the graduate project should be consistent with the career goals of the student, and should be viewed as a culminating display of ability, demonstrating that the graduate is prepared to expand professionally in the field of Community Health Education (CHE) in an intercultural society. This project will reflect excellence in writing, oral presentation, and practical experiences which are requirements essential to success in the field. The 'manuscript format' for the professional project is intended to familiarize students with the rigors of preparing manuscripts for professional journals and/or successful grant submission. Prerequisite: HED 606.

HED608: Graduate Professional Project in Community Health Education II (3 hours)
This is a continuum of HED 607 and consistent with the career goals of the student should be viewed as a culminating display of ability, demonstrating that the graduate is prepared to expand professionally in the field of Community Health Education (CHE) in an intercultural society. This professional project will reflect excellence in writing, oral presentation, and practical experiences which are requirements essential to success in the field. The 'manuscript format' for the professional project is intended to familiarize students with the rigors of preparing manuscripts for professional journals and/or successful grant submission. Prerequisite HED 607.

HED650: Thry & Foundations of Health Education (3 hours)
This course will engage students in critical thinking and discussion about the history and evolution of health education. Students will analyze the foundations of the discipline of health education, predict the impact of the social value systems in programming, apply ethical and cultural considerations in health education, and critically analyze current and future needs. The course will also examine psychosocial factors related to health and illness behavior, self management interventions for chronic illness, self-management interventions for chronic illness, and various health behavior models to determine health benefits and behavior strategies for health behavior changes at the individual, group and community level.

HED651: Planning and Implementation of Health Education Programs (HED) (3 hours)
This course will provide students with the theoretical and practical bases for effective implementation and evaluation of Comprehensive School Health Education (CSHE) programs. Students will be engaged in the development of logical scope and sequence in curricular construction, design programs based on data analysis, use social marketing principles, and exhibit competency in carrying out planned programs.

HED652: Eval & Assessment of Health Education Programs (3 hours)
This course will provide students with the knowledge and skills regarding various methodological approaches utilized in program assessment and evaluations. The course will focus on primary (survey, focus group) and secondary (agency statistic) data analysis. Emphasis is placed on a variety of school and community settings. Prerequisite: HED 651 or consent of instructor.

HED653: Princ of Health Behavior (HED) (3 hours)
This course will examine the psychosocial factors related to health and illness behavior. Various health behavior models will be examined to determine health benefits and behavior strategies for health behavior changes at the individual, group and community level, and self-management interventions for chronic illness.

HED660: Epidemiology and Public Health Issues (HE) (3 hours)
This course will provide a comprehensive overview of epidemiological research with regard to the distribution and determinants of disease risk factors in human populations. Students will obtain and analyze health related data about social and cultural environments, growth, and developmental factors, needs, and diseases of populations. (Course to be offered in SP, odd years)

HED661: Resources for Health Education (3 hours)
This course is designed to enable participants to select and use various health education services, materials and technologies in order to foster communication between health care providers and consumers. Students will develop plans for coordinating services, facilitate cooperation between program personnel, organize training for educators, utilize computerized health information, and establish effective consultative relationships.

HED663: Public Health Policy and Administration (3 hours)
This course provides insight into and understanding of health policy concepts, issues, practices and their consequences. By the end of the course, each student will be expected to synthesize and integrate knowledge to apply theory and principles in ways consistent with professional practice as a health policy analyst in an intercultural society. The course will provide students with the knowledge and skills needed to understand and effectively manage individuals and groups within health services organizations, and blend theory and practice through lectures, discussions, writing assignments, case studies, and a capstone semester assignment in which each student will be responsible for conducting a comprehensive health policy analysis.
Master of Business Administration

- **BUS580: Information Tech Management (3 hours)**
  This course studies management of information technology and its transitions in a technology based world. The foundational message of the course is that the primary focus of the IT manager must be the business goals of the organization and the application of current and future technology towards a competitive advantage for the organization. Operational, tactical and strategic directions are discussed with the understanding that these are changing and will continue to change with the application of technology both within the organization, within their industry, and with respect to supply chain management. The positioning of the head of information technology within the organization is researched and discussed. Proven leadership goals and strategies within information technology departments are reviewed and discussed with the focus of reviewing how technology is changing the methods and focus of IT management. (2nd half semester SU)

- **BUS600: Managerial Economics (3 hours)**
  This course provides the theory and tools necessary for the analysis and solution of problems that have significant economic consequences for the business firm. Economic theory is applied in a way that would enable the decision-maker to understand the effect of the economic environment on resource allocation within the organization. This is an applied, problem solving course. (1st half semester FA)

- **BUS605: Marketing Management (3 hours)**
  This course provides students with the opportunity to learn about marketing and management concepts. Marketing is a ubiquitous part of our lives and its influence on our lives is increasing. Marketing techniques have been used in the profit sector for decades. Not-for-profit organizations have adopted marketing techniques out of necessity in the last two decades. At the end of the course students will be able to: Identify basic marketing concepts, terminology and practices, approach marketing from a system’s point of view, analyze marketing problems using the case analysis method, and present findings and recommendations in oral and written forms. (1st half semester SP)

- **BUS610: Quantitative Decision Making (3 hours)**
  This course develops knowledge and abilities useful for making effective business decisions. It presents tools and procedures that can be used to effectively analyze, interpret and communicate information. The course encourages students to think analytically and to reason logically using available information and appropriate technology in order to solve problems and make decisions. Course topics include decision making under uncertainty, time series forecasting, linear programming and the transportation method. (2nd half semester FA)

- **BUS615: Current Topics in Business Law (3 hours)**
  This course expands on foundational concepts and legal principles that are applicable to the American legal system, its development, and inherent ethical considerations. Course topics include the basis and structure of business contracts; the creation and characteristics of agencies, partnerships, limited liability companies, and corporations; and the rights and liabilities of agents, partners, directors, and shareholders; personal property, sales and the UCC, international transactions, product liability, secured transactions, insurance, negotiable instruments, banking, and bankruptcy. (1st half semester SU)

- **BUS620: Advanced Managerial Accounting (3 hours)**
  This course integrates fundamental managerial accounting topics with strategic analysis to demonstrate how accounting information is used to make business decisions, design control systems, and evaluate the impact on various stakeholder groups. This class addresses issues of measurement and causality. Accounting is a measurement process and, for measures to be meaningful, it is necessary to know what to measure, how to measure, and what the consequences of the measure will be. During the class, there is a balance between accounting computations and use of the resulting information to make decisions. The course explores how different accounting systems affect how decisions are made within an organization. The focus is on information used for internal decision making purposes. The course is designed for the MBA who will be using, rather than producing, financial information. (1st half semester FA)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS625</td>
<td>Leading and Managing in a Changing Environment</td>
<td>3 hours</td>
<td>This course examines multiple theories, approaches, and research-based understandings of the theoretical constructs of leadership and management. Emphasis is placed on the evolution of leadership and management theories. Enduring elements, ongoing issues, emerging trends, and contemporary research are examined. (2nd half semester SP)</td>
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<tr>
<td>BUS630</td>
<td>Business and Ethical Decision Making</td>
<td>3 hours</td>
<td>This course examines the nature and scope of business and organizational integrity. It emphasizes the perceived conflict between the traditional corporate objective of profit maximization and the overall desire for increased social welfare. This course encourages comparative analysis of business ethics within the moral standard of the world community. It addresses how to embed ethics into the everyday business decision-making and practice of organizations.</td>
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<tr>
<td>BUS635</td>
<td>Operations and Supply Chain Management</td>
<td>3 hours</td>
<td>This course integrates the principles, theories and techniques learned from prior operations management courses and provides a broad perspective for efficiently and effectively managing operations. Whether an organization delivers a service or manufactured product, operations management plays a key role in achieving its strategic objectives. This course is designed both to reinforce the tools and techniques required to manage operations and to demonstrate the coordination required between operations and other functional areas. The importance of process choice as it relates to competitive priorities and the concept of manufacturing strategy are discussed in detail. Class discussions, exercises, case analyses and a simulation game provide the vehicles for developing decision making, communication, interpersonal and leadership skills that are essential for managers in operations and supply chain management. (1st half semester SP) Prerequisite: BUS610.</td>
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<tr>
<td>BUS640</td>
<td>Advanced Financial Decision Making</td>
<td>3 hours</td>
<td>This course provides an exploration of advanced financial management topics applied in a case-based format. The course extensively uses teams and Excel modeling as students study, analyze and recommend decisions in areas related to capital budgeting, financing, cost of capital, working capital management, mergers, dividend policy and other current topics. (2nd half semester FA) Prerequisite: BUS620.</td>
</tr>
<tr>
<td>BUS642</td>
<td>International Business</td>
<td>3 hours</td>
<td>This course exposes students to ideas that impact business in the global marketplace. These ideas will be analyzed through case studies, class discussion, and a country analysis. The course will draw as much as possible from current global events. (1st half semester SU)</td>
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<tr>
<td>BUS645</td>
<td>Business Policy and Strategy</td>
<td>3 hours</td>
<td>Business policy deals with the development of strategy formulation and implementation. In order to appropriately formulate a business policy, most businesses must also consider international opportunities and competition. Therefore, this course examines the complexities of corporate operations in different cultures. This course reviews competitive strategy by analyzing business cases. It incorporates a synthesis of various issues dealing with ethics, management, marketing, labor, developing countries, governmental relations, competition and intellectual property. (2nd half semester SP) Prerequisites: BUS600, BUS605, BUS610, BUS620, BUS635, BUS640, and BUS625 (pre- or co-requisite).</td>
</tr>
</tbody>
</table>
### Master of Exercise Physiology

- **EXP500: Advanced Strength and Conditioning I (3 hours)**
  This course will discuss advanced training programs to optimize individual and team adaptations in hypertrophy, force production, power development, speed, and agility. The theory of Olympic lifts, plyometrics, resistance training, aerobic capacity, and SAQ techniques will be discussed as well as development of annual programs for individual and team sports. Prerequisite: ESC 280 and ESC 320 or equivalent.

- **EXP501: Advanced Cardiac Life Support (ACLS) (1 hours)**
  This course will cover emergency medical care for sustaining life, including defibrillation, airway management, and drugs/medications. Development of understanding and skills in life-saving protocols for various conditions is assessed. Successful completion of the course and passing the ACLS exam results in the student being ACLS certified.

- **EXP503: Advanced Exercise Physiology (3 hours)**
  Advanced study of the functioning of physiological systems and underlying mechanisms during exercise. This course will also cover the acute and chronic physiological adaptations of training and detraining as well as factors that affect performance to include metabolism, neuroendocrinology, gender, age, and environment, with an emphasis on the role of exercise in rehabilitation. Prerequisite: ESC 280 or equivalent.

- **EXP504: Advanced Assessment of Physical Performance (4 hours)**
  This course will provide both theoretical knowledge and practical skills required in the evaluation of progress in human performance. This will include testing protocols that examine aerobic capacity, lactate profile, muscular strength, muscular endurance, anaerobic power, flexibility, and body composition. The ability to interpret data and deliver the results will be included. Prerequisite: ESC 320 or equivalent.

- **EXP505: Laboratory Methods I (2 hours)**
  Provides students with hands-on experience with techniques and research applications for assessing, evaluating, and interpreting various physiological parameters such as health screenings, body composition, pulmonary function, blood chemistry, submaximal exercise tests, musculoskeletal fitness, range of motion, and balance and functional ability screenings. This course will also include decision-making skills in designing exercise interventions to include instruction, demonstration, and supervision of exercises.

- **EXP510: Advanced Exercise Testing and Prescription (3 hours)**
  This lecture course is designed to provide a comprehensive overview of the normal and abnormal physiological responses of the human body to exercise testing and training in apparently healthy populations as well as the theoretical and practical knowledge necessary to conduct and interpret a wide variety of screenings and exercise tests commonly used in clinical practice. Additionally, students will be able to design, based on test results, appropriate exercise programs for apparently healthy adults, as well as clients with special considerations. This course will emphasize a case-study approach. Prerequisite: ESC 320 or equivalent.

- **EXP511: Cardiopulmonary Testing (2 hours)**
  This lab-based course will provide students with the skills to properly perform a wide variety of clinical exercise test protocols for diagnostic and prognostic purposes using common testing modalities to include Holter monitoring. Students will learn how to properly monitor, assess, and interpret common variables during exercise testing.

- **EXP512: Electrocardiography (2 hours)**
  A concise summary of cardiac electrophysiology. Identification of normal and abnormal resting and exercise electrocardiograms (ECG). Effects of various physiological and pathological states as well as medications on resting and exercise ECG will be discussed. Includes lecture, investigation of documented ECG case studies, and practice in interpreting 6-second ECG rhythm strips.

- **EXP513: Advanced Electrocardiography (2 hours)**
  This course is a continuation of EXP 512. Students will practice and refine their clinical skills in ECG interpretation. This course will provide a more in-depth approach in understanding the
underlying causes as well as signs and symptoms associated with common arrhythmias. Includes lecture, investigation of documented ECG case studies, extensive ECG rhythm strip interpretation, and the incorporation of ACLS megacode simulations. Prerequisite: EXP 512

- **EXP516: Exercise Testing and Prescription for Clinical Populations (3 hours)**
  This course is designed to provide a comprehensive overview of disease pathophysiology, disease management, recommendations for exercise testing and prescription, and the benefits of exercise training, emphasizing the role of exercise in both prevention and rehabilitation. This course will emphasize a case-study approach. Prerequisite: EXP 510

- **EXP517: Laboratory Methods II (2 hours)**
  Provides students with hands-on experience with techniques and research applications for assessing, evaluating, and interpreting various physiological parameters in clinical populations as well as applied skills utilized in inpatient and outpatient cardiac rehabilitation and diagnostic exercise testing to include patient simulation experiences. Prerequisite: EXP 510, Corequisite EXP 516.

- **EXP520: Client-centered Clinical Practice in Exercise Physiology (4 hours)**
  This course provides students with the practical knowledge and applied skills to perform client-centered assessments, exercise prescriptions, and primary prevention in apparently health populations with special considerations. This course will introduce students to informational and motivational interviewing skills to include physical activity counselling, goal setting, and patient education. This course includes a practicum component. Prerequisite: EXP 510.

- **EXP521: Exercise and Sports Psychology (4 hours)**
  This course is designed to present the undergraduate student with an introduction to basic issues in the psychology and sociology of American sport, physical activity, rehabilitation, and leisure. There are specific areas of focus for the course. To understand: 1. The social and psychological factors which affect the individual's behavior in competitive/recreational/rehabilitative/leisure activities, and 2. The impact of these activities on social and psychological outcomes. The acquisition of such understanding should be reflected in the student's ability to apply course concepts to a variety of sport and leisure program areas.

- **EXP522: Sport Biomechanics (4 hours)**
  Sports Biomechanics introduces students to concepts of mechanics as they apply to human motions, particularly those of exercise, sport, and physical activity. Previous biomechanical and kinesiological knowledge is integrated and applied in both qualitative and quantitative analyses of movements. Students will develop an ability to perform systematic analyses (both qualitative and quantitative) of athletic performances and other tasks. Quantitative analysis will include the use of advanced biomechanical technologies. Students apply course material to design a research project and proceed through data collection and analysis, culminating with a presentation.

- **EXP560: Pathophysiology (3 hours)**
  This course presents the foundational pathology, diagnosis, clinical course and management of patients with various pathologic conditions most relevant to physical therapy practice. A systems approach is used to emphasize the etiology, pathogenesis, pathophysiology, medical evaluation and differential diagnosis, of diseases across the life span. Content will also include imaging and laboratory tests, and prognosis of patient conditions. Students will apply basic anatomy, physiology, physical therapy examination and intervention knowledge gained previously and pharmacology content they will be learning concurrently to acquire an appropriate perspective on patient/client management for people who present with disease/pathology of body systems. (Fa) Prerequisites: Good standing in the MEXP program.

- **EXP579: Internship I (3 hours)**
  This course will build upon the knowledge, skills, and abilities learned in the strength and conditioning by partaking in various experiences through the Carroll University athletic department and the Waukesha community. The course will be graded on a pass/fail basis. Prerequisite: EXP 500

- **EXP580: Practicum I (4 hours)**
This clinical practicum provides students with an opportunity to develop practice-based, hands-on skills to include the assessment, interpretation, and clinical meaning of a variety of screenings and exercise tests commonly used in clinical practice under the direct supervision of a certified/licensed health professional. Students will also develop experience with current best practices and standards of care in the treatment and management of chronic diseases and disabilities. Satisfactory completion ("S" grade) of at least 280 clinical hours is required. Prerequisite: EXP516, EXP520 and permission of graduate advisor.

- **EXP581: Internship II (4 hours)**
  This course gives the opportunity for students to apply theories and concepts to actual work experiences under the supervision of the internship advisor. The purpose of the internship is to provide opportunities to improve skills, reach goals, and adapt to the world of work in the strength and conditioning field. Prerequisite: EXP 579

- **EXP582: Internship III (4 hours)**
  This course gives the opportunity for students to apply theories and concepts to actual work experiences under the supervision of the internship advisor. The purpose of the internship is to provide opportunities to improve skills, reach goals, and adapt to the world of work in the strength and conditioning field. Prerequisite: EXP 581

- **EXP590: Practicum II (4 hours)**
  This course provides students with an opportunity to develop practice-based, hands-on skills to include the assessment, interpretation, and clinical meaning of a variety of screenings and exercise tests commonly used in clinical practice under the direct supervision of a certified/licensed health professional. Students will also develop experience with current best practices and standards of care in the treatment and management of chronic diseases and disabilities. Satisfactory completion ("S" grade) of at least 280 clinical hours is required. Prerequisite: EXP 580 and permission of graduate advisor.

- **EXP591: Advanced Strength and Conditioning II (3 hours)**
  This course will examine aerobic and anaerobic adaptations due to advanced training programs, focusing primarily on the adaptations of the physiological systems. Chronic adaptations will be the main focus, but acute response to a single training session will also be discussed. The physiologic response to concurrent training and detraining will also be examined. Prerequisite: EXP 500.

- **EXP600: Practicum III (3 hours)**
  This clinical practicum expands on the foundation from EXP 590 to provide students with additional opportunities to develop practice-based, hands-on skills to include the assessment, interpretation, and clinical meaning of a variety of screenings and exercise tests commonly used in clinical practice under the direct supervision of a clinical exercise physiologist. Students will also develop experience with current best practices and standards of care in the management of chronic diseases and disabilities to include cardiovascular, pulmonary, metabolic, orthopedic, neuromuscular and immunological/hematological conditions. Satisfactory completion ("S" grade) of at least 150 hours of practicum. Prerequisite: EXP 590

- **EXP601: Internship IV (3 hours)**
  This course gives the opportunity for students to apply theories and concepts to actual work experiences under the supervision of the internship advisor. The purpose of the internship is to provide opportunities to improve skills, reach goals, and adapt to the world of work in the strength and conditioning field. Prerequisite: EXP 582

- **EXP602: Adv. Sport Nutrition Assessment & Prescription (3 hours)**
  This course will provide the strength and conditioning student with the knowledge to assess and design nutritional strategies for a variety of team and individual sports. This will include the use of supplemental nutrition. The overall focus is to give the future strength and conditioning coach the ability to optimize training programs through nutrition centered on periodization training programs both linear and undulating.

- **EXP607: Graduate Research Project I (3 hours)**
In the second academic year students work on an investigative research project in exercise physiology. This project must have a scientific composition and be founded on applicable theory and literature within the chosen topic. The project must meet the criteria for a master's thesis, graduate research project, or a graduate research paper. Offered as satisfactory/unsatisfactory only. Prerequisite: HED 606 and permission of the graduate advisor.

- **EXP608: Graduate Research Project II (1-3 hours)**
  Students who opt to complete a master's thesis or a graduate research project may take up to 3 additional credits to complete their project, and submit their work for presentation and/or publication. The scope of the project and credit hours must be approved by the graduate advisor in advance. Offered as satisfactory/unsatisfactory only. Prerequisite: EXP607 and permission of the graduate advisor.

- **EXP610: Practicum IV (4 hours)**
  This course expands on the foundation from EXP 600 to provide students with additional opportunities to develop practice-based, hands-on skills to include the assessment, interpretation, and clinical meaning of a variety of screenings and exercise tests commonly used in clinical practice under the direct supervision of a clinical exercise physiologist. Students will also develop experience with current best practices and standards of care in the management of chronic diseases and disabilities to include cardiovascular, pulmonary, metabolic, orthopedic, neuromuscular and immunological/hematological conditions. This practicum will also introduce students to interprofessional collaborative practice and learning. Satisfactory completion ("B" grade) of at least 150 hours of practicum. Prerequisite: EXP 600.

- **EXP615: Concepts in Functional Rehabilitation (2 hours)**
  An integrative lecture/lab course designed to provide advanced practical knowledge and skills that relate to the rehabilitation and reconditioning to restore optimal musculoskeletal function in individuals both in health and disease to include testing for return to work. This course will also cover the physiological processes associated with musculoskeletal injury and disease, emphasizing a review of current literature and research.

- **EXP620: Entrepreneurism in Health and Fitness (2 hours)**
  This course will provide students with basic business, advocacy and entrepreneurial skills to develop an innovative aspect within the health and fitness field. This course will be taught in a seminar format to facilitate peer education and learning as well as professional teaming and collaboration skills. The culminating project will be a business proposal to develop a unique intervention or program related to health, wellness, fitness, or sport.

- **EXP692: Current Topics in Strength and Conditioning (2 hours)**
  This course will present modules on current topics in the science of strength and conditioning. Example modules may include: resistance training in aging population, concurrent training, vibration training, HIIT, facility layout, and scheduling. Furthermore, the ability to search current research, and to critically analyze and interpret data will be included. Prerequisite: Corequisite EXP 591.

- **EXP695: Injury Prevention and Rehabilitation (3 hours)**
  This course will provide the strength and conditioning student the opportunity to understand the rehabilitation of common musculoskeletal sport injuries. The student will learn practical and theoretical rehabilitation techniques with a strong emphasis on the transition for an individual to return to sport. The major focus of the course would address acute management of exercise programs through the sports medicine staff to long-term planning of a strength and conditioning coach. Prerequisite: Corequisite EXP 591.
Master of Occupational Therapy

OTH500: Overview of Occupational Therapy Practice (2 hours)
This course introduces students to the concept of occupation, the potential supports and barriers to participation and engagement in occupation, and how this links to life meaning and sense of self. An overview of the areas of practice of occupational therapy, including a review of the history of the profession, values, and philosophy of occupational therapy practice, guidelines, and essential documents of the profession is presented. Prerequisite: Good standing in the OT Program. (FA)

OTH501: Medical Humanities I (2 hours)
This course explores people as complex beings existing in a web of socio-cultural interactions. This course considers and discusses how the patient is situated within his or her own society and culture, how issues such as class and gender might affect his or her access and response to health care, and a variety of other factors. The course examines historical, philosophical and ethical issues and their impact on patient access to health care and personal biases involved in the delivery of healthcare. Prerequisite: Good standing in the OT Program. (FA)

OTH502: Human Anatomy (4 hours)
The emphasis of this course is on a functional understanding of the location and interrelationship of the body's structures. The anatomical basis for human occupation will be examined and applied through the integration of structure and function in content areas most pertinent to the practice of OT and with emphasis on occupational performance. Prerequisite: Good standing in the OT Program. (FA)

OTH503: Human Physiology (4 hours)
This course explores 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 body systems using the incorporation of experimental design, data analysis, computer simulations, case studies and discussion/presentation of primary literature. Prerequisite: Good standing in the OT Program. (FA)

OTH504: Medical Humanities II (2 hours)
This course explores people as complex beings existing in a web of socio-cultural interactions. In order to provide the best care possible this course focuses on the socio-cultural, lifestyle choices and diversity issues impacting patient access to health care and the means through which health care is provided to a diverse population. Prerequisite: Good standing in the OT Program. (SP)

OTH505: Professional Writing (2 hours)
OTH505 is a class designed to prepare students to become effective communicators in professional practice. Students will learn the skills that promote effective communication in any professional context and adapt these techniques to meet the demands of various audiences in the contemporary workplace. This course will introduce principles of effective writing and promote strategies for both improving and streamlining the writing process. Issues specific to professional writing will be considered. One important component of the course is to advance students' "socialization" in the field, that is, to advance the understanding of the norms for personal communication. This process will be facilitated with a careful survey of reading and writing strategies specific to scientific discourse. Students will then adapt the strategies explored to a variety of audiences. Being able to communicate ideas clearly in many contexts (from conferences to correspondence with colleagues to meetings with clients) will be central to students' professional success. Prerequisites: Admission to the MOT program. (FA)

OTH510: Neuroscience Foundations for Occupational Therapy Practice (4 hours)
Anatomy and physiology of the central nervous system will be presented. The relationship of the nervous system to development, learning, memory, emotions, sensation, perception, health, neuropsychological diseases and disorders will be emphasized. Laboratory experiences will apply course content to clinical examination procedures of the motor, sensory, cognitive and behavioral systems as performed by an occupational therapist. Prerequisite: Good standing in the OT Program. (SP)

OTH515: Biomechanics, Human Movement and Occupational Performance (3 hours)
Basics of biomechanics of movement, analysis of movement and kinesiology are analyzed to discern the impact on functional human performance. Analysis of movement is explored as it relates activity analysis and occupational performance. Range of motion and manual muscle testing will be taught. Prerequisite: Good standing in the OT Program. (SP)

- **OTH520: Occupations across the Life Span (3 hours)**
  Overview of human development across the life span from perspective of occupational performance in activities of self-care, work/education (productivity), play/leisure, and rest/sleep is included. Typical and atypical developmental patterns will be discussed and their effect on performance of healthy occupations. Activity analysis and its importance to the occupational therapy process will be explored. Prerequisite: Good standing in the OT Program. (SP)

- **OTH521: Introduction to Level I Fieldwork (2 hours)**
  The first clinical experience focuses on learning professional behaviors and the introduction of OT practice, patients and clients with disabilities. Opportunities will be provided for students to interview clients, compile occupational profiles, practice evaluating range of motion and manual muscle testing. Prerequisite: Good standing in the OT Program. (SP)

- **OTH530: Theories and Models of Occupational Therapy (3 hours)**
  The theories, models and frames of reference that guide occupational therapy practice are presented and discussed. Emphasis will be on integration of these theoretical perspectives into practice. Prerequisite: Good standing in the OT Program. (SP)

- **OTH531: Level I Fieldwork (2 hours)**
  This practicum experience focuses on the psychosocial aspects of physical and developmental disabilities. Opportunities will be provided for students to interact with patients/clients, interview and compile occupational profiles, and provide activities/groups that will promote appropriate interaction, and emotional well-being. Prerequisite: Good standing in the OT Program. (SU)

- **OTH550: Evaluation and Assessment in Occupational Therapy (3 hours)**
  An overview of evaluation processes in occupational therapy including psychometrics (tests and measurement theories, methods, statistics) observation, interviewing, standardized assessment tools, assessment administration and assessment interpretation is provided. Prerequisite: Good standing in the OT Program. (SU)

- **OTH555: Clinical Conditions Affecting Occupational Performance (3 hours)**
  An overview of medical conditions that will provide an understanding of the diagnosis and the basis for treatment of common developmental, physical, musculoskeletal, psychological and neurological disorders encountered during occupational therapy practice is presented. Prerequisite: Good standing in the OT Program. (SU)

- **OTH560: Psychosocial Function and Group Performance (3 hours)**
  Theories and practices of effective interpersonal communication, and use of groups and group processes for therapeutic interventions are presented. Topics will include therapeutic use of self (self-awareness), didactic and group theories and interactions, and their application in occupational therapy practice. Prerequisite: Good standing in the OT Program. (SU)

- **OTH565: Interventions in Physical Dysfunction (6 hours)**
  Theories and intervention strategies related to treatment of adults with physical dysfunction. Focus will be on the application of neurophysiological principles, sensorimotor learning and performance, and specific intervention strategies. This includes strength, endurance, neuromotor and neurosensory strategies. Mobility equipment, adaptive equipment, splinting techniques and ergonomics will be covered. Prerequisite: Good standing in the OT Program. (SU)

- **OTH601: Medical Humanities III (1 hours)**
  This is the culminating course in the Medical Humanities sequence. This course is held in a colloquium style allowing for critical analysis and evaluation of the impact of society and culture has on health care practices. Students reflect on their experiences in clinical practice as related to the socioeconomic status, culture, age, gender and lifestyle choices of the patients they have encountered. An evaluation of healthcare systems response to patient diversity issues occurs
with a culminating recommendation for best practice for an identified unique population. Prerequisite: Good standing in the OT Program. (SU)

- **OTH610: Management and Supervision (3 hours)**
  This course examines general principles of administration, management, and leadership. Program design, funding, and implementation will be presented. Staffing patterns, quality assurance, reimbursement, contractual issues, program development, and reimbursement issues are discussed as they relate to management in healthcare. Effects of systems and legislative and social issues on practice will be explored. Prerequisite: Good standing in the OT Program. (FA)

- **OTH621: Advanced Level I Fieldwork (2 hours)**
  This practicum experience focuses on the provision of occupational therapy within a traditional clinical setting under supervision. Opportunities will be provided for students to provide evaluations and interventions appropriate to the setting and patient needs. Experiences will vary based on setting. Prerequisite: Good standing in the OT Program. (FA)

- **OTH650: Research I - Evidence Based Practice (4 hours)**
  All phases of the research process will be presented. Focus will be on quantitative research & qualitative inquiry as the foundation for professional evidence. Research as the basis of critical inquiry and evidenced-based practice in occupational therapy are introduced. Students access and analyze a variety of health care and occupational therapy literature. Prerequisite: Good standing in the OT Program. (FA)

- **OTH651: Research II (2 hours)**
  Focus will be on developing and carrying out a pilot study or single case study, based on experiences in Level II FW. Faculty serve as mentors to guide students through the formulation of their projects, design and review the pilot study or single case study, and write up and oral presentation of the report. Projects may be done on as an individual or small group. Prerequisite: Good standing in the OT Program.

- **OTH665: Interventions in Pediatric and Developmental Dysfunction (6 hours)**
  This course examines the neuromotor and neurosensory intervention strategies in occupational therapy for pediatric and developmentally populations. Focus will be on the application of neurophysiological principles, sensorimotor learning and performance, and specific intervention strategies as related to the infant through adolescent stages, and those with developmental disabilities. Developmental and motor learning theories and approaches to evaluation and treatment will also be discussed. Prerequisite: Good standing in the OT Program. (FA)

- **OTH670: Fieldwork II - Clinical Internship I (10 hours)**
  This is the first full-time 12-week clinical experience under the supervision of an occupational therapist. Students will achieve competence in basic entry-level occupational therapy skills including evaluation, goal setting, intervention planning and implementation, discharge planning, and termination of services. This may take place in a variety of clinical or community settings. Prerequisite: Good standing in the OT Program. (SP)

- **OTH680: Fieldwork II - Clinical Internship II (10 hours)**
  This is the second full-time 12-week clinical experience under the supervision of an occupational therapist. Students will achieve competence in basic entry-level occupational therapy skills including evaluation, goal setting, intervention planning and implementation, discharge planning, and termination of services. This may take place in a variety of clinical or community settings. Prerequisite: Good standing in the OT Program. (SU) During this terminal clinical affiliation, students are expected to complete a final capstone project synthesizing information from OTH601 Medical Humanities III and OTH651 Research II, which reflects the synthesis of knowledge, reflective practice, and skills developed during the program. This provides students the opportunity to illustrate their achievement and mastery of student learning outcomes.
Master of Physician Assistant Studies Program

- **PHA500: Human Gross Anatomy (6 hours)**
  This course presents a comprehensive consideration of the human anatomy including both neuromusculoskeletal components and internal organ systems. Systems include musculoskeletal, neurological, genitourinary, gastrointestinal, skeletal, and cardiopulmonary. Biomechanical function, topographic and radiographic correlations, and clinical applications are emphasized. An in-depth understanding of the gross anatomy of the human body is obtained through lecture, audiovisual, computer and gross cadaver dissection. This is a lecture / laboratory course. (SU)
  Prerequisite: Admission to the Physician Assistant Program

- **PHA501: Medical Physiology (4 hours)**
  This course is an advanced study of the physiology of human organ systems focusing on blood and circulation, muscular, neuronal and sensory systems, renal and respiratory systems, digestion, metabolism, reproduction, and their control by the endocrine and central nervous systems that provide the basis for understanding disease and pharmacotherapeutic mechanisms. (SU)
  Prerequisite: Admission to the Physician Assistant Program

- **PHA502: Patient Assessment-History and Physical Exam (4 hours)**
  The course provides students with instruction in patient assessment and management including techniques for interviewing and eliciting a medical history, performing a basic physical examination, and documenting patient data. At the conclusion of the course, the student is expected to be competent in eliciting a complete medical history and physical exam, appropriately documenting the exam including all positive and negative findings. Medical terminology is reviewed throughout the course. The elements of a comprehensive medical history and physical examination are presented and students practice these techniques in PHA 510. This is a lecture / laboratory course. (SU)
  Prerequisite: Admission to the Physician Assistant Program

- **PHA503: Intro to Physician Assistant Profession (1 hours)**
  The course explores the factors affecting the development of the profession and the role of the physician assistant in today's healthcare system. Credentialing, policies, regulations governing the scope of practice, and professional organizations for physician assistants are explored. The course also examines quality assurance and risk management, legal issues, practice statutes, and rules regulating physician assistant practice in Wisconsin. Issues of professionalism, physician/physician assistant relationships, and ethical decision-making are introduced. (SU)
  Prerequisite: Admission to the Physician Assistant Program

- **PHA504: Intro to Clinical Medicine (2 hours)**
  This course is an introduction to clinical medicine with focus on preventive medicine, screening guidelines and treatment protocols throughout the lifecycle. Emphasis is on disease prevention with attention given to the unique needs of diverse and underserved patient populations. Clinical genetics and immunogenetics are introduced linking current research to practical clinical medicine in advancing the understanding of the molecular basis of genetic concepts to practical clinical application. Introduction to oncology, its clinical presentation, diagnostics, and therapeutics, as well the role of preventive medicine in cancer, is addressed incorporating basic knowledge of gene expression and genetic patterns. (SU)
  Prerequisite: Admission to the Physician Assistant Program

- **PHA505: Clinical Medicine I (5 hours)**
  This course integrates the pathophysiology, clinical diagnosis, and management of a spectrum of disorders in the comprehensive presentation of the various disease processes commonly encountered in primary care across the spectrum of clinical medicine. Clinical Medicine I employs a system-oriented, problem based approach. Clinical information is presented in conjunction with appropriate, correlative lectures pharmacology, radiology, laboratory diagnostics, and nutrition. Organ systems covered in Clinical Medicine I include: otolaryngology, ophthalmology, dermatology, hematology, cardiology and pulmonary medicine. (FA)
  Prerequisites: Successful completion of all courses in the summer term.

- **PHA506: Clinical Medicine II (5 hours)**
  This course integrates the pathophysiology, clinical diagnosis, and management of a spectrum of disorders in the comprehensive presentation of the various disease processes commonly encountered in primary care across the spectrum of clinical medicine. Clinical Medicine II employs
a system-oriented, problem based approach. Clinical information is presented in conjunction with appropriate, correlative lectures pharmacology, radiology, laboratory diagnostics, and nutrition. Organ systems covered in Clinical Medicine II include: endocrinology, gastroenterology, urology, nephrology, orthopedics, rheumatology and behavioral medicine. (SP) Prerequisites: Successful completion of all courses in the winter term.

- **PHA507: Pharmacotherapy and Pathophysiology I (4 hours)**
  Therapeutic and drug product selection including issues of efficacy, potential toxicities, side effects, compliance, monitoring parameters, drug interactions, contraindications and cost will be studied. Pathophysiology will be presented as it relates to disease states and the therapeutic mechanisms of treatment. The student will develop a rational approach to the selection of medications to be prescribed, and studies of medications used in the treatment of acute and chronic illnesses across the lifespan. Pharmacotherapy and Pathophysiology I runs concurrently with Clinical Medicine I and focuses on the therapeutics associated with disease states presented in Clinical Medicine. Some information will be presented in a case study format using patient scenarios to develop clinical pharmacology knowledge. (FA) Prerequisites: Successful completion of all courses in the summer term.

- **PHA508: Pharmacotherapy and Pathophysiology II (4 hours)**
  Therapeutic and drug product selection including issues of efficacy, potential toxicities, side effects, compliance, monitoring parameters, drug interactions, contraindications and cost will be studied. Pathophysiology will be presented as it relates to disease states and therapeutic mechanisms of treatment. The student will develop a rational approach to the selection of medications to be prescribed, and studies of medications used in the treatment of acute and chronic illnesses across the lifespan. Pharmacotherapy and Pathophysiology II runs concurrently with Clinical Medicine II and focuses on the therapeutics associated with disease states presented in Clinical Medicine II. In addition, this course presents a review of the principles of pharmacology and examines legal and professional issues in prescribing. (SP) Prerequisites: Successful completion of all courses in the winter term.

- **PHA509: Clinical Diagnostics I (2 hours)**
  This course is an introduction to radiologic imaging, clinical laboratory medicine, and ECG and cardiac diagnostics. The ability to select, perform, and interpret the results of basic clinical laboratory procedures is essential to the physician assistant's role and responsibilities in ordering and performing diagnostic tests and analyzing a data base to aid in formulating a preliminary diagnosis and management plan. Students emerge with an understanding of the indications for various modalities and significance of abnormal results. Diagnostics associated with the particular systems covered in Clinical Medicine I are discussed. (FA) Prerequisites: Successful completion of all courses in the summer term.

- **PHA510: Clinical Diagnostics II (2 hours)**
  This course expands the student's medical, clinical and diagnostic skills. The principles, indications, interpretation, complications of, and contraindications to labs, diagnostics and imaging studies are discussed in a systems-based approach. This course runs concurrently with systems being covered in Clinical Medicine II. (SP) Prerequisites: Successful completion of all courses in the winter term.

- **PHA511: Behavioral Medicine (2 hours)**
  This course provides instruction in psychological development across the lifespan. Concepts in counseling and patient education skills necessary to help patients and families cope with injury and illness, adhere to prescribed treatment plans, modify behaviors to more helpful patterns are presented. This course also explores principles of violence and substance abuse, elder and child abuse including identification and prevention. This course provides instruction in the important aspects of patient care including preventive, acute, and chronic rehabilitative and end of life care. Psychological issues involved in each aspect of care such as response to illness, injury, end of life, and stress are presented. (FA) Prerequisites: Successful completion of all courses in the summer term.

- **PHA512: Healthcare Systems, Health Policy and Administration (1 hours)**
This course gives students a foundation in healthcare system knowledge. Students are oriented to basic components of the United States healthcare system. Issues and questions are presented and discussed in relation to their impact on citizens as well as practicing physician assistants. Topics include the historical underpinnings of health-care policy, the healthcare system, hospitals, ambulatory care, quality assurance and risk management in clinical practice, education, personnel, financing, insurance, managed care, mental health care, long term care, and other contemporary health care issues. Students evaluate, present, and debate pertinent issues presented in readings and lectures. The influence of culture on health care will be discussed. The relationship of socioeconomic status on healthcare will be explored. (WN) Prerequisites: Successful completion of all courses in the fall term.

- **PHA513: Evidence Based Medicine and Research (2 hours)**
  This course presents a review of basic statistics and its application to evidence-based theory as it pertains to epidemiology, public health, and the practice of clinical medicine. Modules in accessing computer based medically oriented information and medical data bases are presented. The course emphasizes the use of literature to validate and improve the practice of clinical medicine. Students identify, review, and critique published literature relevant to clinical settings. Students learn to use medical literature as a tool in clinical decision-making. (SU) Prerequisites: Successful completion of all courses in the spring term.

- **PHA514: Medical Ethics (2 hours)**
  This course examines prominent ethical issues in healthcare delivery. Students engage in discussion of ethical dilemmas relevant to clinical practice and the unique relationship of the physician and physician assistant. (WN) Prerequisites: Successful completion of all courses in the fall term.

- **PHA515: Clinical Procedures (1 hours)**
  The course provides the student with an overview of common clinical procedural skills and their indications, limitations, benefits and potential risks. Students perform clinical procedures that will be emphasized in the clinical phase of their education with an emphasis placed on aseptic technique, appropriate indications and contraindications, patient safety, and patient comfort. This is a lecture / laboratory course. (May) Prerequisites: Successful completion of all courses in the spring term.

- **PHA516: Emergency Medicine (4 hours)**
  This course provides a comprehensive introduction to diagnosis and treatment of common and life-threatening patient presentations in the Emergency Department. This is a lecture / laboratory course. (Sp) Prerequisites: Successful completion of all courses in the winter term.

- **PHA517: Pediatrics (2 hours)**
  This course is an introductory pediatrics course which covers well child care, preventive pediatric medicine and the common problems encountered in the pediatric patient. The course employs a system-oriented, problem-based approach. Included in this course is a laboratory for students to practice physical exam on a pediatric patient. (FA) Prerequisites: Successful completion of all courses in the summer term.

- **PHA518: Geriatrics (1 hours)**
  This course is an introduction into the biological aspects of aging, latency of disease, clinical geriatric syndromes, atypical disease presentations, drug prescribing and long term care of the elderly. An understanding of the special considerations and knowledge needed for clinical assessment and management of this special patient population is developed. Physical examination of the geriatric patient will take place as a practicum experience utilizing standardized patients. (WN) Prerequisites: Successful completion of all courses in the fall term.

- **PHA519: OB/Gyn (2 hours)**
  This course presents the fundamentals of gynecology, pathophysiology, screening and diagnosis of gynecological cancers; management of women’s health problems, antenatal and postnatal care, recognition and management of complications of pregnancy, and basic management of normal/abnormal labor and delivery, and gynecological problems encountered in primary care. The pelvic exam will be taught utilizing teaching associates during the semester. This is a
PHA520: Surgery (3 hours)
An introduction to the role of the physician assistant in surgery and surgical procedures commonly performed. The course employs a system-oriented, problem-based approach and clinical information is presented in conjunction with appropriate, correlative lectures in anatomy, physiology, pharmacology, pathology, radiology, laboratory diagnostics, and nutrition. This is a lecture/laboratory course. (SP) Prerequisites: Successful completion of all courses in the winter term.

PHA521: Clinical Decision Making I (2 hours)
This course is designed to expand the student's medical knowledge base and facilitate critical thinking and clinical diagnostic skills. The student will develop differential diagnoses and order and interpret appropriate laboratory and imaging studies. Finally, students will demonstrate the ability to succinctly present a working diagnosis, treatment plan, and prognosis. This is a lecture/laboratory course. (FA) Prerequisites: Successful completion of all courses in the summer term.

PHA522: Clinical Decision Making II (2 hours)
This course brings together the knowledge and skills developed previously so that the student can perform a comprehensive history and physical examination with complex patient cases. Critical thinking is an integral part of performing the examination through the development of a differential diagnosis and appropriate diagnostic strategies. Content includes presentation of behavioral and social concepts in medicine including personality development, normative responses to stress, psychosomatic manifestations of illness, sexuality, basic counseling skills, and emotional problems of daily living. This is a lecture/laboratory course. (SP) Prerequisites: Successful completion of all courses in the winter term.

PHA523: Foundations of Cultural Competence and Health Disparities I (1 hours)
This course is a 1-credit semester course intended to build upon basic interviewing skills that are introduced in PHA502. It will consist of a series of patient encounters, classroom discussions and readings relevant to working constructively with problems in clinician/patient communications. Common types of difficult patient interactions will be addressed. Self-awareness is emphasized as the basis upon which clinicians develop an enhanced capacity for empathic listening and responsiveness. This course helps students to develop the competencies necessary for current and evolving clinical practice in a variety of practice settings with focuses on primary care, disease prevention, health promotion, and cultural competence with an emphasis on Hispanic health care. (SU) Prerequisite: Admission to the Physician Assistant Program

PHA524: Foundations of Cultural Competence and Health Disparities II (1 hours)
Consistent with the Mission Statement, Goals, and Objectives, Practicum II provides Master of Science in Physician Assistant Studies students with practice-based, hands-on skills and experience which parallel didactic instruction during the semester. This course helps students to develop the competencies necessary for current and evolving clinical practice in a variety of practice settings with focuses on primary care, disease prevention, health promotion, and cultural competence with an emphasis on Hispanic health care. (FA) Prerequisites: Successful completion of all courses in the summer term.

PHA525: Foundations of Cultural Competence and Health Disparities III (1 hours)
Consistent with the Mission Statement, Goals, and Objectives, Practicum III provides Master of Science in Physician Assistant Studies students with practice-based, hands-on skills and experience which parallel didactic instruction during the semester. This course helps students to develop the competencies necessary for current and evolving clinical practice in a variety of practice settings with focuses on primary care, disease prevention, health promotion, and cultural competence with an emphasis on Hispanic health care. (SP) Prerequisites: Successful completion of all courses in the winter term.

PHA620: Emergency Medicine Supervised Clinical Practice (8 hours)
The student is introduced to triage and stabilization of patients with life threatening conditions and procedures performed in the emergency medicine department. Emphasis is placed on skills
required to perform and document a problem oriented history and physical, formulate a differential diagnosis, order and interpret the tests necessary to confirm or rule out a primary diagnosis, and give appropriate patient education. The student will learn strategies for interacting with patients and families in various levels of stress. (8 weeks) Prerequisites: Successful completion of year-1 courses.

- **PHA621: Family Medicine Supervised Clinical Practice (8 hours)**
The student will evaluate, document, diagnose, and treat problems common in primary care/family medicine. The student will demonstrate proficiency in office procedures commonly performed in a family medicine office. (8 weeks) Prerequisites: Successful completion of year-1 courses.

- **PHA622: General Internal Medicine Supervised Clinical Practice (8 hours)**
The student will perform in-depth evaluation and ongoing treatment of patients with complex problems and/or chronic illness. The student will evaluate and manage the effects of chronic disease on multiple body systems and perform or assist in procedures commonly done in internal medicine. (8 weeks) Prerequisites: Successful completion of year-1 courses.

- **PHA623: General Surgery Supervised Clinical Practice (8 hours)**
The student will evaluate and manage patients with a variety of surgical problems. The student will develop an understanding of the role of the surgeon, anesthesiologist, assistant surgeon, circulating nurse, scrub nurse, scrub tech, recovery room nurse, and the surgery floor nurses, aides, and techs in the care of the surgical patient. (8 weeks) Prerequisites: Successful completion of year-1 courses.

- **PHA625: Pediatrics Supervised Clinical Practice (4 hours)**
The student will provide care to the neonate through adolescent in outpatient and inpatient settings. The student will perform evaluation of the healthy pediatric patient and recognize, evaluate and treat the common illnesses and problems experienced by the neonate, infant, small child and adolescent to age 18 years. The student will identify and manage problems in growth and development of these age groups and recognize and manage pediatric emergencies. (4 weeks) Prerequisites: Successful completion of year-1 courses.

- **PHA626: Women's Health and Prenatal Care Supervised Clinical Practice (4 hours)**
The student will provide care to female patients in the areas of women's health, prenatal care, and disease processes of the reproductive system. The student will evaluate, manage, and educate female patients regarding annual exams, birth control, infertility, menstruation, sexuality, pregnancy, pre- and postnatal care, menopause, and relationships. (4 weeks) Prerequisites: Successful completion of year-1 courses.

- **PHA627: Behavioral Medicine Supervised Practice (4 hours)**
The student will evaluate and manage patients with a variety of psychiatric problems. The student will develop an understanding of the role of psychiatrists, psychologists, social workers and nurses in the care of the psychiatric patient. Students will administer selected psychoactive pharmaceuticals. The student will perform a psychiatric interview and mental status examination and make referrals for specialized psychiatric treatment. (2 weeks) Prerequisites: Successful completion of year-1 courses.

- **PHA628: Elective Supervised Clinical Practice (4 hours)**
The student will select an elective clinical rotation, including but not limited to primary care, nephrology, interventional radiology, orthopedics, oncology, dermatology, or international medicine. (6 weeks) Prerequisites: Successful completion of year-1 courses.

- **PHA630: Capstone (4 hours)**
This is a program-long project requirement. Student medical investigation is interwoven throughout the curriculum and the project is completed during year-2. The student will either present a detailed case presentation utilizing the medical literature to provide evidence based discussion of the management and plan or will use the medical literature to answer a case-related medical question or controversy using an evidence-based investigational approach. The student will complete a scholarly paper and present findings as an oral presentation at Celebrate Carroll in April of year-2. The student is encouraged to submit their respective project for presentation at
the American Academy of Physician Assistant annual CME conference, in May of year-2. Successful completion of the Capstone requires satisfactory completion of the summative OSCE, comprehensive written examination and capstone project. Prerequisites: Successful completion of year-1 courses.
Master of Software Engineering and Graduate Certificate in Software Engineering

- **CSC506: Object Oriented Programming and Data Structures (3 hours)**
  This course is an intensive introduction to the fundamentals of object-oriented programming. The features of the object-oriented paradigm (encapsulation, inheritance and polymorphism) will be introduced through use of the language Java. Fundamental data structures such as stacks, queues, lists and trees will be covered along with an analysis of algorithm efficiency. (FA) Prerequisite: programming knowledge equivalent to an undergraduate data structures course or consent of the instructor.

- **CSC543: Mobile Application Development I (3 hours)**
  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, Windows 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: CSC506 or equivalent or concurrent enrollment.

- **CSC544: Mobile Application Development II (3 hours)**
  This course is a project course, the second course of a sequence, putting into practice what was learned in CSC543. Students are required to propose a Mobile Development project of acceptable difficulty/scope, to be approved by the instructor of the course. Students may work individually or in pairs. A formal presentation will be required at the end of the term. (SP, even years) Prerequisite: CSC543

- **CSC550: Advanced Web Applications (3 hours)**
  This course concentrates on the skills necessary for a student to master the multi-tier Web development environment using Microsoft .NET framework (the latest version). Database-driven applications, Web services, and component development are stressed. Other topics covered may include SOA (Service Oriented Architecture), XML document processing, as well as performance and security issues. Web fundamentals are reviewed as deemed necessary. Prerequisite: knowledge of database programming or consent of the instructor. (FA)

- **CSC560: Advanced Web Applications II (3 hours)**
  This course develops the skills necessary for a student to master the world of Java-based server-side processing. This course builds on CSC 550 with special emphasis on the Java2 Platform for implementing scalable and reliable enterprise applications from reusable components. Each student will manage a Tomcat-JBoss Web Server running on a dedicated Linux server for the entire semester. Contemporary issues in client server technology will be addressed including Remote Method Invocation (RMI), JavaBeans, Java Servlets, and Java Server Pages (JSP). A three-tiered distributed component programming environment is used with an Oracle Database on the third tier. (SP) Prerequisites: knowledge of database programming and CSC 506.

- **CSC591: Enterprise Data Modeling (3 hours)**
  The course concentrates on the concepts and skills necessary to design effective domain-object models, convert these models to relational models, and bridge the object-relational impedance mismatch. These skills include Domain-Object and Entity/Relationship (ER) Modeling, normalization, command of the SQL language, and object-relational mapping (ORM). Students will study both the theory and practical aspects of domain-driven design, enterprise relational databases, layered architectures and an object-relational mapping API. (FA) Prerequisite: knowledge equivalent to an undergraduate database course or consent of the instructor.

- **CSC600: Object Oriented Analysis and Design (3 hours)**
  This course concentrates on the object-oriented paradigm as it applies to analysis, design and software implementation. Various object-oriented design patterns will be introduced, as will design frameworks as they apply to the latest software development practices. Unified Modeling Language (UML) and CASE tools may be used as appropriate. (SP) Prerequisite: CSC 506.

- **CSC602: Software Project Management (3 hours)**
This course concentrates on the skills necessary to manage a software project both from the technical perspective and from the human relations perspective. By their very nature, software projects defy a 'one size fits all' approach. In this course, students will learn to apply best-practice principles while maintaining the flexibility that's essential for successful software development. This course will stress the understanding of how and why software development must be planned on a certainty-to-uncertainty continuum, the categorization of your projects on a particular model, the learning of the SDPM strategies and their benefits, the reorganization of scoping, planning, launching, and monitoring/controlling activities, and the application of the knowledge to the specific projects you manage. (SP)

- **CSC603: Networking - Design and Implementation (3 hours)**
  This course presents a view of the broad field of data communications and networking. Fiber and wireless technologies (Wireless LAN, MMDS, LMDS) will be stressed as they reshape the future of networking. Topics include network classification, protocols, services, hardware components: routers, switches, multiplexors, concentrators, and communications media. Students will concentrate on how technology is changing the nature and uses of networking as bandwidth and services increase under a Moore's Law projection. Quality of service issues will be stressed and uses of this technology are studied as it leads a reshaping of organizations and their activities. Broadband and last mile issues will be studied and forecast as these reshape communication.

- **CSC605: Mathematical Underpinnings of Information Systems (3 hours)**
  This class will provide the mathematical underpinnings of the MSE curriculum. It will emphasize the mathematical structures used in computer and information sciences. Topics covered will include analysis of algorithms, mathematical logic, sets, graph theory, functions, relations, recursion, computability, proof of correctness, and applications.

- **CSC610: Operating Systems (3 hours)**
  This class covers the elements and design of operating systems. Traditional operating systems such as Unix and Windows will be compared and contrasted along with more futuristic, experimental operating systems. Problems such as concurrence, memory management, file management, communication, security and other such issues will be addressed. A 'hands-on' laboratory component includes experiments with the linux kernel. Prerequisite: CSC 506.

- **CSC621: Algorithms (3 hours)**
  This course covers essential strategies of algorithm design and analysis, including topdown design, divide and conquer, average and worst-case criteria, and asymptotic costs. 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: CSC 506.

- **CSC623: Programming Languages (3 hours)**
  This class covers the elements and design of programming languages. Topics covered include: specification of syntax and semantics, programming language paradigms - with several example languages, and parsing. (SP, even years) Prerequisite: CSC 506 or consent of the instructor.

- **CSC640: Software Engineering (3 hours)**
  This course presents state-of-the-art techniques in software development. Topics will include the software engineering lifecycle and current approaches to software development, including formal software specification, software teams, Web engineering, and agile development. In addition, the course will cover version control, roll out, software maintenance and quality assurance. Research issues in software engineering will be examined. (FA) Prerequisite: CSC 600 or consent of the instructor.

- **CSC641: Advanced Visual Basic (3 hours)**
  This course is a hands-on examination of further features and techniques of the programming language Microsoft Visual Basic. This course provides further experience in OO programming and demonstrates how to build Windows applications using the features of Visual Basic. (WW)

- **CSC642: Visual C++ (3 hours)**
This course is a hands-on examination of the features and techniques of the programming language Microsoft Visual C++. This course provides further experience in OO programming and demonstrates how to build Windows applications using the features of Visual C++. (WW)

- **CSC643: Advanced Topics in Software Engineering (3 hours)**
  This course provides students with an understanding of some more focused and/or advanced software process methodologies, practices, and techniques, which may affect developing quality software systems as they evolve over time. This course also provides an environment for students to critically evaluate what they are exposed to, so that they are better prepared to make the right technical decisions when working on changing, large codebases. The actual topics to be covered in the course may vary from time to time depending upon the current software development trend and the advancement of the technology. The topics to be covered may include, but are not limited to, software metrics, software testing and quality engineering, requirement engineering, software maintenance and evolution, system architecture, advanced topics in software design, software components, advanced software validation and verification methods, configuration management, and formal methods. (SP even years) Prerequisite: CSC 640 or consent of the instructor.

- **CSC650: Capstone I (3 hours)**
  For an approved real-world project that the student has selected, this course requires the amount of work equivalent to the first two phases of the Unified Software Process - the Inception and Elaboration phases. All five workflows should be represented - requirement, analysis, design, implementation, and testing, with emphasis on incremental development with short iterative production cycles. A working prototype or a partially finished product is expected. The latest software development methodologies should be adopted as deemed appropriate. (WW) Prerequisites: completion of CSC 550, CSC 560, CSC 591, CSC 600, CSC 640, and completion or concurrently taking CSC 602 and CSC 643. (FA, SP, SU)

- **CSC651: Capstone II (3 hours)**
  This course is normally the last course taken in the graduate program. The student is expected to use all of the skills developed with the other courses and life experiences. This course is a continuation of CSC 650 and the required amount of work is equivalent to the latter two phases of the Unified Software Process - Construction and Transition phases. Dealing with frequent changes has become the norm of modern software development, and the student is expected to demonstrate the ability to handle the changes incurred. A completely finished product is expected. (WW) Prerequisites: CSC 650. (FA, SP, SU)

- **CSC660: Component Software & Implementation Issues (3 hours)**
  This course requires the student to bring together the knowledge and skills from the previous object-oriented courses. The class begins with a review of the object-oriented paradigm and continues through the real world issues of software creation for a wide variety of customers with varying needs and issues. Does the OO paradigm lead to the creation of component-based systems as its proponents suggest? And if so, how do implementation, reusability, components, internationalization and other similar topics affect the delivery of software systems? Prerequisite: CSC 560.

- **CSC680: Software Engineering Internship (1 TO 4 hours)**
  This course entails professional work experience in software engineering under the supervision of faculty and industry personnel. Written report required. S/U graded. (WW)

- **CSC691: Special Topics (3 hours)**
  Advanced research designed to permit individual students or groups of students to undertake special projects related to their educational interests and goals.