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.
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.
Academic Programs

Certificates
Doctorate Level Program
Master Level Programs
Certificates

The Entrepreneurial Journey
Elementary Mathematics Certificate
Kindergarten - 12 Writing Certificate
The program goals are to guide a small, highly selective group of students each year whose entrepreneurial careers will be greatly enhanced and actuated by the program experience.

A Bachelor degree of any type is required for enrollment in the certificate program. Due to the lockstep and cohort nature of the program in which all courses are being delivered concurrently, there are no course prerequisites.

For more information on The Entrepreneurial Journey Certificate, visit the web page by clicking here.

- **Certificate Mission**
  
  The mission of this graduate level entrepreneurial certificate is to provide a unique opportunity for a select group of students to discover their entrepreneurial potential and guide their career decisions in entrepreneurship. This mission directly supports the Four Pillars of the Carroll Educational Experience by integrating all facets of The Entrepreneurial Journey into an immersion program as will be detailed in supporting information.

- **Student Learning Outcomes**

  Upon completion of the certificate program, each student will:

  I. Discover and articulate their passions for lifelong activity that are based in entrepreneurial thought and action;

  II. Identify entrepreneurial opportunities, evaluate each opportunity within the entrepreneurial thought process, analyze alternative actions and articulate the consequences of each alternative courses of action;

  III. Correctly gauge prospective customer needs and effectively analyze the requirements of these customers and the critical success factors necessary for their proposed entrepreneurial business to succeed;

  IV. Assess the risks and rewards of the entrepreneurial endeavor and its probable impact on constituents within the community, customer group, and any employees of the company;

  V. Create a detailed action plan that can be effectively executed; and

  VI. Create self-awareness about the experience they have had and its potential impact on their lives, the lives of their employees, and the community.

- **Certificate Requirements**

  - Minimum of 15 credit hours.
  - 8 credit hours must be completed at Carroll; departments can set higher requirements as necessary
  - Identify time frame for past courses to be included in certificate program credit hours.
  - Certificate program audit submitted to Registrar’s office 3 months prior to certificate credit completions.

  Required courses listed below (all five required)

  All are 3 credit courses. The courses are integrated and delivered in the same term in a concurrent fashion. Classes will run from 5:00 – 10:00 pm on Monday evenings and 8:00 am – 6:00 pm on nine Saturdays in the fall term. In addition, there will be a final exam held the last Monday evening. An additional integrated project will occur throughout the semester and we expect an additional 3 hours of outside/online work weekly on average.

  - ENT500: Creating the New Venture with Lean Startup Methods (3 hours)
  - ENT505: Strategies for Early Stage Growth (3 hours)
  - ENT510: Financing Entrepreneurial Ventures (3 hours)
  - ENT515: Entrepreneurial Selling (3 hours)
  - ENT520: Leadership and the Life of Meaning (3 hours)

- **Admission**

  Each Entrepreneurial Journey cohort commences in the fall semester only. Teams working on business concepts may apply and work together on the capstone project. With team applications, individuals may choose only to be admitted with a team, or as individuals. Applications are reviewed on a rolling basis until the class is full. 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.

  Applications and credentials for admission to the Entrepreneurial Journey Program must be submitted for processing to the Carroll University Office of Admission at 100 N. East Avenue Waukesha, WI 53186.

  Requirements for admission into Entrepreneurial Journey Program include an earned Baccalaureate Degree from an accredited university Office of Admission at 100 N. East Avenue Waukesha, WI 53186.

  Requirements will be based on submission and evaluation of:

  - Entrepreneurial Journey on-line application
  - Current professional resume
  - One letter of recommendation
  - Statement of purpose that outlines your motivations for pursuit of the graduate certificate
  - Interview – candidates may be individually invited for an in-person interview
The Entrepreneurial Journey 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.

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

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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)
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 hours)
- EDU625: Teaching the Writing Process
- EDU626: Teacher as Writer-Facilitating Better Student Writing (3 hours)

OR - EDU671: Understanding Self, Race, Class and Gender to Leverage Student Achievement (3 hours)
Doctorate Level Program

Doctor of Physical Therapy
Physical Therapy Graduate Program

DOCTORATE LEVEL PROGRAM

Physical Therapy Graduate Program
Curriculum
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Graduate Courses

Quick Links

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Physical Therapy Graduate Program

David M. Bazzet-Jones
Assistant Professor Physical Therapy

Sara M. Deprey
Clinical Associate Professor Physical Therapy

Mark R. Erickson
Clinical Associate Professor Physical Therapy

Jane F. Hopp
Associate Professor Physical Therapy, Dean

John P. McCarthy
Associate Professor Physical Therapy, Program Director

Amy E. McQuade
Clinical Assistant Professor Physical Therapy

Sara E. North
Instructional Staff Physical Therapy

Thomas G. Pahnke
Clinical Associate Professor Athletic Training and Physical Therapy

Kathleen A. Shields
Clinical Assistant Professor Physical Therapy

Jeffery P. Sischo
Clinical Assistant Professor 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: 703-706-3245; email: accreditation@apta.org.

Societal demands and a changing health care environment affect physical therapy practice. The aim of the entry-level Physical Therapy program at Carroll University is to produce clinicians, trained for general practice in an evolving, diverse and interdisciplinary health care environment, who provide best care, respectful of patient/client values and grounded in evidence-based practice and clinical reasoning, and who contribute to the profession and their community. To achieve the program's aim, individuals associated with the program demonstrate effective teaching, scholarship, clinical practice, and service to the university, profession, and community.

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 aim 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 aim, 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, Phase I and Phase II.

During Phase 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 Phase II. For students that enter the program with direct admittance status Bachelor's degrees are awarded to those individuals satisfying all relevant Carroll undergraduate requirements at the conclusion of the senior year/Phase I.

At the conclusion of Phase I, students move into the graduate phase of the program, Phase II, where 500-level (summer, fall and spring terms of year five) and 600-level (summer, fall and spring terms of year six) courses in physical therapy are offered.
Physical Therapy Graduate Program

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:

- **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.

- **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.

- **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:

- 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.

- Cumulative GPA of 3.0 or higher (on a 4.0 scale).

- 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).

- 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 admission applicants may complete CS/400 GPC in Phase I of the professional phase.

- 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 Phase I of the graduate program and certifications must be valid for at least one year at the time of entry into Phase I.

- Safety and Technical Standards.

- Health Screening and Background 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.

- Submission of required application materials prior to the applicant’s designated deadline date, which include:
  - Direct admission application for progression deadline: December 15, 2014
  - Non-direct admission deadline: January 15, 2015
  - Non-traditional admission deadlines: January 15, 2015 - 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:**

- Graduate Studies On-line Application for the entry-level Doctor of Physical Therapy Professional Phase.

- Supplemental Application Admission Materials, which include:
  - 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.
  - 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).
  - Essay Form – must be typed.
  - Employment, Service, and Academic Honor(s) Form: Participation and documentation of university or community service activities is required.
  - Health Science Statement(s) Form.
  - Safety and Technical Standards Form.
  - Course Work in Progress Form.
  - Application for Graduation Form: [Only](http://www.ptcas.org) 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.

- Official GRE scores: Carroll's School Code is 1101 and Department Code is 0619 - exam date must be within the last 5 years

Physical Therapy Graduate Program

- Official transcript(s): Submission of transcripts from all post-secondary institutions attended. (Carroll applicants do not need to submit transcripts.)
- Cumulative GPA of 3.0 or higher (on a 4.0 scale)
- Pre-Professional GPA of 3.0 or higher (on a 4.0 scale) - reference the prerequisite section for details

Non-Traditional Admission

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

- Submission of Supplemental Application Fee of $50. Payment may be made online by clicking HERE (please include your PTCAS ID number).
- Submission of transcripts from all post-secondary institutions directly to PTCAS.
- Official Graduate Record Examination (GRE). GRE’s must be sent directly to PTCAS. Carroll's PTCAS GRE code is 8829.
- 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.
- Three Letters of Reference – LOR’s must be submitted to PTCAS. Please reference PTCAS for documentation requirements.
  - One letter from a licensed physical therapist
  - One letter from a university/college professor
  - One letter from a personal contact (non-familial) that may attest to the student’s character
- Cumulative GPA of 3.0 or higher (on a 4.0 scale).
- 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:

- **BIOLOGY** - 4 semesters, which include:
  - 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 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
- **CHEMISTRY (Inorganic)** - 2 semesters, which include:
  - 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)
- **PHYSICS** - 2 semesters, which include:
  - 2 semesters of general physics I and II with labs (Equivalent to Carroll’s: PHY 101 & PHY 102 or PHY 203 & PHY 204
- **PSYCHOLOGY** - Up to 2 semesters, which include:
  - Introductory psychology or higher, or at least one course completed at a 200 level or higher (Equivalent to Carroll’s: PSY 101 and above
- **MATH** - 1 semester, which includes:
  - 1 semester statistics (Equivalent to Carroll’s: CMP112 and CMP114; may be 1 course such as CMP112; MAT112 or PSY205
- **HUMANITIES** - 3 semesters: For example, English, History, Sociology, Religious Studies, Women’s Studies, Fine Arts, Languages (for Carroll students the Pioneer Core general education courses satisfy this requirement)
- **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)
- **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 Admission to and Progression in the Physical Therapy Program

Successful participation in the Carroll University Doctor of Physical Therapy (DPT) Program requires that a candidate possess the ability to meet the requirements of the program. Though the program may modify certain course requirements in order to provide a person with a handicap\(^1\) equivalent opportunity to achieve results equal to those of a person without a handicap, there are no substitutes for the following essential skills. The applicant must initially meet the health requirements and technical standards described below to gain admission to the DPT program, and must also continue to meet them throughout participation in the program. If a student has a significant change in health status while enrolled in the DPT program, the student is required to inform their program advisor, submit a physician release, and update the technical standards form.

1 Handicapped as defined by the federal government pursuant to SS 504 of the Rehabilitation Act of 1973.
Physical Therapy Graduate Program

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 fulfill the Caregiver and Background 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.

- 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 insuring 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

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 is required in all physical therapy courses. 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 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 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.

- Policy on Reapplication 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 may exercise their reapplication option only once. Readmission candidates applying to the program must submit the materials required of all applicants for admission. In addition, they must provide transcripts relating to any education experiences completed since leaving the program. A letter indicating why the readmission candidate believes s/he will succeed academically and technically in the program must accompany the application materials. Upon review of the materials, the program's admissions selection committee may render the following decisions: 1) Approval of the request for readmission to the program with academic conditions, or 2) denial of the request for readmission to the program.

- Clinical Education

Clinical education in the physical therapy program consists of integrated Teaching Laboratory Practicum courses and 33 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.

- **Fees and Financial Aid**

  During the Professional Phase I of the Physical Therapy Program, tuition and other fees apply to all students. A professional program fee for 2014-15 of $500 per semester is assessed 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 (Phase II) tuition for 2014-15 is $715 per credit, and students enrolled in Phase II are not eligible for Carroll University financial aid grants. Students in Phase II are eligible for graduate Unsubsidized Stafford Loans.

  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.

- **Entry-Level Doctor of Physical Therapy Program Curriculum: 122 Credits**

  - **Phase I (Senior year for Direct Admit and Transfer Students) 32 credits**

    - **Fall Semester - 16 credits**
      - PTH400: Foundations of Professional Practice (4 hours)
      - PTH404: Biomechanics I (4 hours)
      - PTH406: Exercise Physiology I (4 hours)
      - PTH407: Human Learning and Behavior (4 hours)

    - **Spring Semester - 16 credits**
      - PTH401: Clinical Research I (4 hours)
      - PTH405: Neuroscience (4 hours)
      - PTH414: Biomechanics II (4 hours)
      - PTH416: Exercise Physiology II (4 hours)

  - **Phase II**

    - **Year 1 - 46 credits**
      - **Summer Semester - 14 credits**
        - PTH500: Applied Physiology II (3 hours)
        - PTH501: Basic Patient Management Skills (3 hours)
        - PTH520: Professional Practice I (2 hours)
        - PTH521: Teaching Laboratory Practicum I (2 hours)
        - PTH540: Clinical Decision Making I (3 hours)
        - PTH550: Research and Readings I (1 hours)

      - **Fall Semester - 15 credits**
        - PTH560: Pathology (3 hours)
        - PTH509: Intro to Pharmacology (3 hours)
        - PTH541: Clinical Decision Making II (2 hours)
        - PTH515: Clinical Internship I (7 hours)

      - **Spring Semester - 17 credits**
        - PTH506: Neurological System Disorders I (3 hours)
        - PTH507: Musculoskeletal System Disorders I (3 hours)
        - PTH508: General Medicine I (3 hours)
        - PTH530: Professional Practice II (2 hours)
        - PTH531: Physical Therapy Teaching Laboratory Practicum II (2 hours)
        - PTH542: Clinical Decision Making III (3 hours)
        - PTH551: Research and Readings II (1 hours)

    - **Year 2 - 44 credits**
      - **Summer Semester - 12 credits**
        - PTH611: Clinical Internship II (12 hours)

      - **Fall Semester - 16 credits**
        - PTH606: Neurological System Disorders II (3 hours)
        - PTH607: Musculoskeletal System Disorders II (3 hours)
        - PTH608: General Medicine II (3 hours)
        - PTH610: Clinical Research II (1 hours)
        - PTH640: Clinical Decision Making IV (1 hours)
Physical Therapy Graduate Program

- PTH620: Professional Practice III (2 hours)
- PTH621: Physical Therapy Teaching Lab Practicum III (2 hours)
- PTH650: Research and Readings III (1 hours)

Spring Semester - 16 credits
- PTH612: Clinical Research III (2 hours)
- PTH614: Clinical Internship III (14 hours)

Summary of Credits

<table>
<thead>
<tr>
<th>Doctor of Physical Therapy Degree</th>
<th>122 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase I</td>
<td>32 credits</td>
</tr>
<tr>
<td>Phase II</td>
<td>90 credits</td>
</tr>
</tbody>
</table>

Graduate Courses

The following courses are offered through our Graduate Program.

- PTH400: Foundations of Professional Practice (4 hours)
- PTH401: Clinical Research I (4 hours)
- PTH404: Biomechanics I (4 hours)
- PTH404L: Biomechanics I Laboratory
- PTH405: Neuroscience (4 hours)
- PTH405L: Neuroscience Laboratory
- PTH406: Exercise Physiology I (4 hours)
- PTH406L: Exercise Physiology I Laboratory
- PTH407: Human Learning and Behavior (4 hours)
- PTH414: Biomechanics II (4 hours)
- PTH414L: Biomechanics II Laboratory
- PTH416: Exercise Physiology II (4 hours)
- PTH416L: Exercise Physiology II Lab
- PTH500: Applied Physiology II (3 hours)
- PTH500L: Applied Physiology II Lab
- PTH501: Basic Patient Management Skills (3 hours)
- PTH501L: Basic Patient Management Skills Lab
- PTH506: Neurological System Disorders I (3 hours)
- PTH506L: Neurological System Disorders I Lab
- PTH507: Musculoskeletal System Disorders I (3 hours)
- PTH507L: Musculoskeletal System Disorders I - Laboratory
- PTH508: General Medicine I (3 hours)
- PTH508L: General Medicine I - Lab
- PTH509: Intro to Pharmacology (3 hours)
- PTH515: Clinical Internship I (7 hours)
- PTH520: Professional Practice I (2 hours)
- PTH521: Teaching Laboratory Practicum I (2 hours)
- PTH530: Professional Practice II (2 hours)
- PTH531: Physical Therapy Teaching Laboratory Practicum II (2 hours)
- PTH540: Clinical Decision Making I (3 hours)
- PTH541: Clinical Decision Making II (2 hours)
- PTH542: Clinical Decision Making III (3 hours)
- PTH550: Research and Readings I (1 hours)
- PTH551: Research and Readings II (1 hours)
- PTH550: Pathology (3 hours)
- PTH606: Neurological System Disorders II (3 hours)
- PTH606L: Neurological System Disorders II Laboratory
- PTH607: Musculoskeletal System Disorders II (3 hours)
- PTH607L: Musculoskeletal System Disorders II Laboratory
- PTH608: General Medicine II (3 hours)
- PTH608L: General Medicine II - Laboratory
- PTH610: Clinical Research II (1 hours)
- PTH611: Clinical Internship II (12 hours)
- PTH612: Clinical Research III (2 hours)
- PTH614: Clinical Internship III (14 hours)
- PTH620: Professional Practice III (2 hours)
- PTH621: Physical Therapy Teaching Lab Practicum III (2 hours)
- PTH640: Clinical Decision Making IV (1 hours)
- PTH650: Research and Readings III (1 hours)
Master Level Programs

- Master of Business Administration
- Graduate Program in Education
- Master of Science in Exercise Physiology
- Master of Graphic Communication
- Master of Science Physician Assistant Studies Program
- Master of Software Engineering and Graduate Certificate in Software Engineering
Master of Business Administration

Program Overview

The Master of Business Administration (MBA) degree includes coursework in accounting, business ethics, 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.

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:

- Earned Baccalaureate Degree from an accredited institution.
- Successful completion of all foundational course work (see below for specific foundational course work).

Applications 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:

- Graduate Studies On-line Application.
- All official post-secondary transcripts, including both graduate and undergraduate course work. Official transcripts must be mailed directly to Carroll University Admission Department.
- Current professional resume.
- GMAT or GRE may be required if applicant has below a 2.75 cumulative GPA on a 4.0 scale.

Foundational Course Work

Please see below for the specific courses that are required under each discipline.

- 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.

- Foundation Coursework
  Please see below for the specific courses that are required under each discipline.
  - 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.

- 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)
- CSC580: Information Tech Management (3 hours)

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 8 or fewer credits per semester while full-time students enroll in 9 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.

Tuition

Tuition for graduate courses in the MBA Program for 2013-14 is $575.00 per credit.

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.

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 Registrar's 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.

- 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)
The Carroll University Graduate Program in Education supports candidates seeking to develop expertise through professional development and/or the acquisition of a Master of Education Degree (M.Ed.). The program offers three emphases: Curriculum and Instruction (C & I), Health Education (HED) and Adult and Continuing Education (ACE). Within these emphases, candidates choose areas of concentration, referred to as strands, 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.

**Curriculum and Instruction**

The C & I emphasis is designed to provide educators with learning opportunities that develop expertise related to curriculum, teaching, learning, assessment, and technology in a variety of educational settings.

**Health Education**

The HED emphasis is designed to provide the most current information available to professionals who are engaged in, or focused on education, leadership and the promotion of the future well-being of our society.

**Adult and Continuing Education**

The ACE emphasis is designed to provide professionals who are engaged in educating adults in a variety of settings with the most current information related to learning, curriculum, program planning, and administration.

**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:

- An increased understanding of classic and contemporary learning theories and instructional strategies appropriate to the discipline;
- 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;
- Higher order thinking skills to consider multiple perspectives, demonstrate collaborative teamwork and the ability to build partnerships with colleagues, schools, agencies, and organizations;
- 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;
- 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. Applications 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 2.5 on a 4.0 scale. Those applying to the School Leadership strand must have a grade point average of 2.75 from their most recently completed program. Admission decisions are made when applications are complete. Nine credits in Education courses with a grade of B or better are required for admission.
grades of B and above may be transferred toward the Carroll M.Ed. from other accredited institutions after review by the chair. Course syllabi are required for review of course content.

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 advisor to discuss how their background and educational goals relate to the graduate education program and to design their course of study. Classes are offered in a variety of formats and locations: evening, daytime, weekends, online, and hybrid options. Part-time students enroll in 6-8 credits per semester while full-time students enroll in at least 9 credits per semester (at least 6 credits are needed to qualify for financial aid).

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.

- **Tuition**

Tuition for graduate courses in education for 2013-14 is $480.00 per credit; $175.00 per credit to audit a course.

- **Financial Assistance**

Financial aid in the form of student loans is available to M.Ed. students who are enrolled at least on a part-time (6 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, 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. Transfer credit may not be applied to learning community or cohort-based delivery models.

- **Master of Education Program**

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

- **Curriculum and Instruction**
- **Adult and Continuing Education**
- **Health Education or Community Health Education.**

Students choose one of the emphases in their graduate program.

- **Core Courses**
  - EDU641: Teaching & Learning Across the Life Span (C&I; ACE; HED) (3 hours)
  - 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)

- **Curriculum and Instruction Emphasis**

Students choose two of three content strands:

- **Literacy**
- **Contemporary Curriculum Issues**
- **Sociocultural Issues.**

Students must earn nine credits in each strand. Alternately, students may choose to earn the Wisconsin Reading Teacher License #316 as part of their M.Ed. program. This option requires completion of the Wisconsin Reading Teacher License #316 strand.

Students must also complete three to six credits of electives from any strand or from other areas in the master’s program.

- **Literacy Strand**
  - 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)
  - EDU625: Teaching the Writing Process (3 hours)
  - EDU626: Teacher as Writer-Facilitating Better Student Writing (3 hours)
  - EDU675: Emergent Literacy (L) (3 hours)
  - EDU677: Issues in Children's and Adolescent Literature (C&I-L) (3 hours)
  - EDU678: Reading Assessment in the K-12 Classroom (C&I-L) (3 hours)
  - EDU680: Practicum in Assessing and Teaching Reading (L) (3 hours)

- **Contemporary Curriculum Issues Strand**
  - EDU631: Cognitively Guided Instruction in Mathematics-Workshop (CCI) (3 hours)
  - EDU634: Applying Educational Technology in K-12 Classrooms (C&I-C) (3 hours)
  - EDU640: Foundations of Gifted and Talented Education (CCI) (3 hours)
  - EDU643: Curriculum Making - Past and Present (C&I-C) (3 hours)
  - EDU644: Education of Gifted & Talented Students - Workshop (CCI) (3 hours)
  - EDU645: Collaboration in the Classroom (ACE) (3 hours)
  - EDU654: Developing Multicultural and Global Curricula (C&I-S) (3 hours)
  - EDU655: Families in Society (CCI; S-CCI) (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 (3 hours)
  - EDU682: Supervision of Student Teachers- Theory and Practice (C&I-C)

- **Sociocultural Issues**
(can include the Wisconsin alternative education license #952)

- 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)
- EDU657: Pedagogy for Alternative Learning Environments (S-CI) (3 hours)
- EDU658: Philosophical/Ethical Issues in Education (S-CI) (3 hours)
- EDU671: Understanding Self, Race, Class and Gender to Leverage Student Achievement (3 hours)

Wisconsin Reading Teacher License #316 Strand

- EDU625: Teaching the Writing Process (3 hours)
- EDU674: Literacy in the Secondary School Content Areas (3 hours)
- EDU666: Literacy in the Middle Childhood Grades (3 hours)
- EDU675: Emergent Literacy (L) (3 hours)
- EDU677: Issues in Children's and Adolescent Literature (C&I-L) (3 hours)
- EDU678: Reading Assessment in the K-12 Classroom (C&I-L) (3 hours)
- EDU680: Practicum in Assessing and Teaching Reading (L) (3 hours)

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 the Wisconsin Teacher Standards and International Reading Association Standards is required prior to licensure.

Program Delivery

The Wisconsin Reading Teacher License (#316) Program is delivered through a Learning Community. The Learning Community participants meet together one weekend a month. 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 Wisconsin Reading Teacher License (#316) Program each Learning Community is co-facilitated by two instructors who follow the cohort through the entirety of the program.

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

The Carroll University Educational Leadership Program (CUELP) 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. A Master of Education in Educational Leadership includes the requirements for Director of Instruction (#10) and/or Principal (#51). The M.Ed. 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 or to improve practice.

2. Certification for licensure as Director of Instruction (#10) and/or Principal (#51) for candidates who currently hold a master’s degree or the equivalent.

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 hour)
      - EDU669: School Leadership Practicum II (1 hour)
      - 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)
      - 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 CUELP 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.

- **School Leadership Program**
- **CUELP Admission Criteria**

Applications begin the admission process by completing a Carroll University Graduate Studies Application. Applications 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.

### The Master of Education - Learning and Teaching (M.Ed. - L.T.)

The Master of Education - Learning and Teaching (M.Ed. - L.T.) is organized around four major themes: educational theory and practice, research and assessment, social justice and teacher leadership. The spiraling format of the courses and the collaborative, learner-directed environment allows students to gain significant depth and breadth in educational theory and practice as they apply their learning to their own professional practice.

### Program Delivery

The Master of Education – Learning and Teaching (M.Ed. – L.T) is delivered through a Learning Community model. The Learning Community is a program in which participants meet together one weekend a month over the course of four 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. In the M.Ed. – L.T, each Learning Community is co-facilitated by two instructors who follow the cohort through the entirety of the program.

The Learning Community model 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.

Because of the nature of the program, no graduate credits earned from other institutions may be transferred into this program. Students are expected to stay with the Learning Community throughout the duration of the two-year program. In some situations, students may decide to step out of the Learning Community; however, they may not rejoin the same Learning Community at a later date. They may join a newly forming Learning Community and will be expected to attend all sessions, but will not be required to pay tuition for a Carroll University graduate course that is part of the Learning Community curriculum for which they have already paid and successfully completed. Because of the format of the program, students who step out of this program may bring a maximum of nine Learning Community and other graduate transfer combined credits into the traditional campus based program. All other policies of the Graduate Program in Education apply to this program.

### Learning and Teaching Course Work

- **Semester 1: (9 credits)**
  - EDU606: Learning Community Theory and Practice (3 hours)
  - EDU607: Introduction to Educational Research (3 hours)
  - EDU611: Culturally Relevant Teaching (3 hours)
- **Semester 2: (9 credits)**
  - EDU608: Classroom as Community (3 hours)
  - EDU609: Educational Research II (3 hours)
  - EDU612: Authentic Learning and Assessment (3 hours)
- **Semester 3 (9 credits)**
  - EDU613: Educational Leadership Theory and Practice (3 hours)
  - EDU614: Educational Research III (3 hours)
  - EDU617: Educators as Leaders (3 hours)
- **Semester 4: (6 credits)**
  - EDU615: Educational Leadership Theory and Practice III (3 hours)
  - EDU616: Educational Research IV (3 hours)

### Adult Education Emphasis

The Adult Education Emphasis is designed to provide professionals who are engaged in educating adults in a variety of settings with the most current information possible in the practice, theory, and research relevant to this dynamic and expanding field. Adult education issues related to learning, curriculum, program planning, and administration are explored. Students research and prepare projects relevant to a variety of professional and educational settings. The 33 program credits consist of the core courses, required courses and electives.

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

- Communicate and Advocate for Health and Community/Public Health Education
- Serve as a Community/Public Health Education Resource Person
- Administer Health Education Strategies, Interventions, and Community/Public Programs
- Conduct Evaluation and Research Related to Community/Public Health Education
- Implement Health Education Strategies, Interventions, and Programs
- Plan Health Education Strategies, Interventions, and Community/Public Programs
- Assess Individual and Community Needs for Health Education

The strands are designed to provide the most current information available to professionals who are engaged in or focused on education, leadership and the promotion of the future well-being of our society.

The National Commission for Health Education Credentialing has specific requirements for receipt of Certified Health Education Specialist (C.H.E.S.) status. The criteria include a minimum level of participation in health education degree granting programs as well as demonstration of basic competencies. The Health Education Emphasis meets National Commission criteria and addresses the competencies required for C.H.E.S. certification.

Currently licensed teachers can use components of this emphasis to obtain Wisconsin Health Education certification. This certification requires completion of Wisconsin Department of Public Instruction criteria at either the undergraduate or graduate level. Students choosing to obtain this certificate must complete undergraduate courses BIO 130, BIO 140, HSC 101, in addition to HED 650, HED 651, HED 652, HED 661, EDU683, and the PRAXIS II Health Content test.

Successful completion of the Praxis II content test in Health, practicum and portfolio are required prior to licensure.

Health Education Strand

This strand prepares students for professional roles in health education and promotion. The primary objective of the curriculum is to provide the Health Educator with the knowledge and skills to plan, develop, implement, monitor and evaluate behavior change programs for improving health status. Courses feature methods for diagnosing and assessing the health needs of communities and organizations; theories of health behavior and their application, the planning and design of public health programs; approaches to measuring and monitoring the implementation of interventions; and strategies for evaluating the impact of programs on cognitive, behavioral, and health status endpoints.

The 33 program credits consist of the core courses, required courses and electives.

Required Courses
- HED650: Thry & Foundations of Health Education (HED) (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)
- Choose one of the following:
  - EDU646: Administration of Adult Education Programs (ACE) (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)

Community Health Education Strand

Community Health Education is a critical discipline that concerns itself with medical interventions that improve the health of a community. Its activities focus on the entire population rather than the individual patient. The mission of this Strand is to prepare health related professionals in a global society as effective intercultural communicators to administer, develop, implement, and evaluate Community/Public Health Education programs. Equally important, the program’s goal is to develop and prepare future leaders for a variety of volunteer-based public health agencies, medical settings, worksite wellness initiatives and governmental base service programs. This Strand, within Education’s Health Education Emphasis, also meets National Commission criteria above for learning outcomes, thus program completers will be able to demonstrate the following competencies:

- Assess Individual and Community Needs for Health Education
- Plan Health Education Strategies, Interventions, and Community/Public Programs
- Implement Health Education Strategies, Interventions, and Programs
- Conduct Evaluation and Research Related to Community/Public Health Education
- Administer Health Education Strategies, Interventions, and Community/Public Programs
- Serve as a Community/Public Health Education Resource Person
- Communicate and Advocate for Health and Community/Public Health Education

The Community Health Educator Strand

- HED666: Statistical Methods for the Health Sciences (3 hours)
- HED667: Graduate Professional Project in Community Health Education I (3 hours)
- HED668: Graduate Professional Project in Community Health Education II (3 hours)
- HED610: Graduate Professional Project Preparation (1 hours)
- HED670: Thry & 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)
- HED663: Public Health Policy and Administration (3 hours)

1 elective

LICENSE/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.

- 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)
- EDU605: Thesis Preparation (RC) (3 hours)
- EDU606: Learning Community Theory and Practice (3 hours)
- EDU607: Introduction to Educational Research (3 hours)
- EDU611: Culturally Relevant Teaching (3 hours)
- EDU612: Authentic Learning and Assessment (3 hours)
- EDU613: Educational Leadership Theory and Practice (3 hours)
- EDU614: Educational Research III (3 hours)
- EDU615: Educational Leadership Theory and Practice III (3 hours)
- EDU616: Educational Research IV (3 hours)
- EDU617: Educators as Leaders (3 hours)
- EDU618: Mathematical Reasoning and Leadership for Elementary Specialists: K-5 Learning Trajectories (3 hours)
- EDU619: Numbers and Operations: K-5 Mathematical Tasks (3 hours)
- EDU621: Writing Across the Curriculum: Leadership Institute (3 hours)
- EDU622: Writing Project Practicum (3 hours)
- EDU625: Teaching the Writing Process (3 hours)
- EDU626: Teacher as Writer-Facilitating Better Student Writing (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)
- EDU631: Cognitively Guided Instruction in Mathematics-Workshop (CCI) (3 hours)
- EDU634: Applying Educational Technology in K-12 Classrooms (C&I-C) (3 hours)
- EDU640: Foundations of Gifted and Talented Education (CC&I) (3 hours)
- EDU641: Teaching & Learning Across the Life Span (CC&I; ACE; HED) (3 hours)
- EDU643: Curriculum Making - Past and Present (C&I-C) (3 hours)
- EDU644: Education of Gifted & Talented Students - Workshop (CCI) (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 Develop- ment in Adult and Continuing Education (ACE) (3 hours)
- EDU650: Sociology of Education (C-15) (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)
- 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)
- EDU671: Understanding Self, Race, Class and Gender to Leverage Student Achievement (3 hours)
- EDU674: Literacy in the Secondary School Content Areas (3 hours)
- EDU675: Emergent Literacy (L) (3 hours)
- EDU676: Literacy in the Middle Childhood Grades (3 hours)
- EDU677: Issues in Children’s and Adolescent Literature (C&I-L) (3 hours)
- EDU678: Reading Assessment in the K-12 Classroom (C&I-L) (3 hours)
- EDU680: Practicum in Assessing and Teaching Reading (L) (3 hours)
EDU682: Supervision of Student Teachers- Theory and Practice (C&I-C)
EDU683: Graduate Internship in Education (1 TO 3 hours)
EDU691: Graduate Special Topics (1 TO 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: Thry & 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)
HED663: Public Health Policy and Administration (3 hours)
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 practicums, internships, and service learning. 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-CES certification exams and would be prepared to work in a variety of clinical rehabilitation and preventive settings. Students completing the strength and conditioning concentration would possess the same general skills and abilities with a focus on sport physiology, neuromuscular function, and sports medicine practice.

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 and safe and effective exercise programs for persons from diverse populations and health conditions.
3. Understand common chronic diseases and disabilities, disease progression, treatments, 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. Ability to 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 10 credits of core requirements, 36-39 credits of concentration requirements, and 9-12 credits of electives. Elective courses may be taken in integrated cognate areas to complement their education, such as business and leadership, and health education.

### Admission - Graduate

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 two ways:

- 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.
- 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 (a minimum of 101 undergraduate credits is required prior to entering the graduate program) and then, the final two years consist of graduate level study in the Master of Science in Exercise Physiology Program. Upon completion of the first 27 credits in 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 (58 total credits), the Master of Science in Exercise Physiology degree is awarded.

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:

- Evidence 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 3+2 completion plan applicants.
- Cumulative GPA of 3.0 or higher (on a 4.0 scale) is recommended.
- Pre-professional prerequisite GPA of a 3.0 or higher (on a 4.0 scale) is recommended.
- Successful completion of all pre-professional prerequisite course work with letter grades of "C" or better within seven years from the time of application and prior to beginning the graduate program.
- Proof of current First Aid and CPR certification for the professional rescuer is required prior to commencing the graduate program.
- 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.

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

- Graduate Studies On-line Application.
- Professional Resume and Reference List (minimum of 3 references)
- Essay
- *Official transcripts from all post-secondary institutions attended, including both graduate and undergraduate course work – must be mailed directly to Carroll University Admission Department.
- *Official GRE Score Report sent directly to Carroll University (university code 1101) – exam date must be within the past 5 years.
- Safety and Technical Standards Form.
- Successful completion of prerequisite course work completed within seven years from the time of application with letter grades of "C" or better (see required prerequisite course work below).

*Unofficial transcripts and GRE are accepted at the time of application. Official credentials are required after acceptance and prior to the start of the program.

REQUISITED PREREQUISITE COURSE WORK

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

- 1 undergraduate level anatomy course with lab*
- 1 undergraduate level physiology course with lab*
- 1 undergraduate level exercise physiology course*
- 1 undergraduate level exercise testing and prescription course*
- 1 undergraduate level statistics course
- 1 undergraduate level psychology course

*Indicates course work included in pre-professional GPA calculation

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, ECG, 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
Master of Science Exercise Physiology Program

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 assessment, 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 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 have completed a health screening, updated immunizations and tuberculosis screening according to current Centers for Disease Control and Prevention (CDC) recommendations for health professionals, criminal background investigation, and drug screening as required by internship placement sites.

- 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. Prior to matriculation, students are required to complete a background and criminal history check and abide by the university and state regulations pertaining to the findings.

- Insurance

**Insurance**

Health: Exercise physiology 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 to the Office of Risk Management. For students without their own coverage, a group insurance policy is available through the university. Students are also required to complete and have on file with the University’s Health Center a Health History Form, which includes a current immunization record.

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

- Academic Progression

**Academic Progression**

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.

- Fees

**Fees**

Graduate tuition for the Exercise Physiology Program for 2014-15 is $515 per credit hour plus $500 for program fees per semester (fall, spring, and summer).

- Curriculum: 58 Credits

**Curriculum: 58 Credits**
Core Requirements in Masters of Science in Exercise Physiology - 10 credits
- EXP503: Advanced Exercise Physiology (4 hours)
- EXP503L: Laboratory Techniques in Adv Exercise Physiology
- EXP607: Thesis (3 hours)
- HED606: Statistical Methods for the Health Sciences (3 hours)

Concentration Requirements in Clinical Exercise Physiology (CEP) - 39 credits
- EXP501: Advanced Cardiac Life Support (ACLS) (1 hours)
- EXP510: Advanced Exercise Testing and Prescription (4 hours)
- EXP512: Electrocardiography (2 hours)
- EXP515: Concepts in Functional Rehabilitation (2 hours)
- EXP516: Exercise in the Prevention and Rehab of Chronic Diseases and Disabilities (3 hours)
- EXP520: Clinical Practice in Exercise Physiology (2 hours)
- EXP580: Practicum I (4 hours)
- EXP590: Practicum II (4 hours)
- EXP600: Practicum III (3 hours)
- EXP610: Practicum IV (2 hours)
- EXP621: Methods in Integrative Lifestyle Management (3 hours)
- HED651: Planning and Implementation of Health Education Programs (HED) (3 hours)
- PTH509: Intro to Pharmacology (3 hours)
- PTH560: Pathology (3 hours)

Concentration Requirements in Strength and Conditioning (SC) - 36 credits
- EXP500: Advanced Strength and Conditioning I (3 hours)
- EXP502: Adv. Sport Nutrition Assessment & Prescription (3 hours)
- EXP504: Advanced Assessment of Physical Performance (3 hours)
- EXP521: Exercise and Sports Psychology (4 hours)
- EXP522: Sport Biomechanics (4 hours)
- EXP581: Internship I (4 hours)
- EXP582: Internship II (4 hours)
- EXP591: Advanced Strength and Conditioning II (3 hours)
- EXP601: Internship III (3 hours)
- EXP692: Current Topics in Strength and Conditioning (2 hours)
- EXP695: Injury Prevention and Rehabilitation (3 hours)

Elective Courses - 3 or more courses
- Students in the CEP concentration must complete 9 credit hours of electives. Students in the SC track must complete a total of 12 credit hours 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 hours)
- EXP502: Adv. Sport Nutrition Assessment & Prescription (3 hours)
- EXP503: Advanced Exercise Physiology (4 hours)
- EXP503L: Laboratory Techniques in Adv Exercise Physiology
- EXP504: Advanced Assessment of Physical Performance (3 hours)
- EXP510: Advanced Exercise Testing and Prescription (4 hours)
- EXP512: Electrocardiography (2 hours)
- EXP515: Concepts in Functional Rehabilitation (2 hours)
- EXP516: Exercise in the Prevention and Rehab of Chronic Diseases and Disabilities (3 hours)
- EXP520: Clinical Practice in Exercise Physiology (2 hours)
- EXP521: Exercise and Sports Psychology (4 hours)
- EXP522: Sport Biomechanics (4 hours)
- EXP580: Practicum I (4 hours)
- EXP581: Internship I (4 hours)
- EXP582: Internship II (4 hours)
- EXP591: Advanced Strength and Conditioning II (3 hours)
- EXP600: Practicum III (3 hours)
- EXP601: Internship III (3 hours)
- EXP607: Thesis (3 hours)
- EXP610: Practicum IV (2 hours)
- EXP621: Methods in Integrative Lifestyle Management (3 hours)
- EXP692: Current Topics in Strength and Conditioning (2 hours)
- EXP695: Injury Prevention and Rehabilitation (3 hours)
## Two Year Plan, Clinical Exercise Physiology concentration

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**Core Requirements in Masters of Science in Exercise Physiology - 10 credits**
- Concentration Requirements in Clinical Exercise Physiology (CEP) - 39 credits
- Concentration Requirements in Strength and Conditioning (SC) - 36 credits
- Elective Courses - 3 or more courses
- Two Year Plan, Clinical Exercise Physiology concentration
- Two-Year Plan, Strength and Conditioning concentration

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Two-Year Plan, Strength and Conditioning concentration

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Master of Graphic Communications

**Program Mission**

The University’s Graphic Communication Graduate Program will provide its students with integrative learning experiences that focus on academic and professional preparation in graphic communication theory, development and implementation across multi-vehicle design and marketing approaches used in the commercial design environment.

**MS-GRC Program Overview**

The Master of Science Graphic Communication Degree at Carroll University will not only build on prior learning from the undergraduate graphic communication (GRC) level, but will also introduce new material, learning experiences, and skill sets required by today’s business and creative environments. The graduate program in graphic communication will apply, on a large-scale, advanced application skills across numerous communication vehicles (including interactive media, social media, design, and new design tools), theory, and history. The graduate program will be comprised of 11 courses. Nine courses are offered by the MS-GRC program; two courses are offered by Carroll University’s MBA program.

**MS-GRC Student Learning Outcomes**

Students in the Master of Science in Graphic Communication Program will:

1. Demonstrate an ability to develop and implement a multi-vehicle marketing program proposal utilizing advanced graphic communication skill sets.
2. Demonstrate an in-depth understanding of, and mastery of, business communications as it relates to design, communication, graphics, and marketing strategies.
3. Demonstrate an ability to present and defend research and production work in oral, written, and graphic forms.
4. Demonstrate understanding and application of new technologies as they pertain to graphic communication.
5. Demonstrate a global perspective as it pertains to communication and design.
6. Synthesize and apply the above outcomes through substantial, sustained, standards-based work in real settings.

**Admission Requirements**

The Master of Science in Graphic Communication 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 Science in Graphic Communication 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 Science in Graphic Communication Program include:

- Earned Baccalaureate Degree from an accredited institution.
- Cumulative GPA of 2.75 or higher (on a 4.0 scale).
- Proficiency in foundational course work preferred.

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

- Submission of the Graduate Studies Application (www.carrollu.edu/apply).
- Submission of all official post-secondary transcripts, including both graduate and undergraduate course work, must be mailed directly to Carroll University Admission Department.
- Two letters of reference from individuals such as: work supervisors, professional colleagues, and former faculty members.
- Statement of purpose written by the applicant that outlines the applicant’s goals and objectives for the pursuit of graduate studies – must be one page typed.
- Current professional resume or curriculum vitae.
- Portfolio consisting of a maximum of 10 works submitted electronically (for example, website, CD, blog, email) and may include print design, web design, 3D modeling, and video.

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

**Transfer Credits**

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

**Academic Planning**

- Program Mission
- MS-GRC Program Overview
- MS-GRC Student Learning Outcomes
- Admission Requirements
- ADMISSION
- Transfer Credits
- Academic Planning
Initially, interested students meet with an advisor to discuss how their background and educational goals relate to the MS-GRC. Students may enroll in six credits per semester or less. Requirements for the MS-GRC 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.

- **Tuition**
  
  Tuition for graduate courses in the Master of Science in Graphic Communication for 2013-14 is $525.00 per credit.

- **Financial Assistance**
  
  Financial aid, in the form of student loans, is available to GRC students who are enrolled at least half-time (4 credits per semester). For further information, call the Office of Financial Aid at 262.524.7296.

- **Withdrawal Procedures**
  
  Any graduate student who wishes to withdraw should first meet with the MS-GRC 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.

- **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 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.

- **General Degree Requirements**

  The MS-GRC is an 11-course, 33 credit program. Students must maintain a minimum GPA of 2.75

  - **MS-GRC Courses**
    
    - GRC610: New Media Studies (3 hours)
    - GRC620: The Rise and Influence of Social Media (3 hours)
    - GRC630: New Design Tools 1 (3 hours)
    - GRC640: Campaigns (3 hours)
    - GRC650: Visualization (3 hours)
    - GRC660: Copyright, Licensing, and Ethics (3 hours)
    - GRC670: New Design Tools 2 (3 hours)
    - GRC675: International Design (3 hours)
    - GRC690: Capstone 2: The Non-profit Campaign (3 hours)

  - **Support Courses from the MBA Program**
    
    - BUS605: Marketing Management (3 hours)
    - BUS625: Leading and Managing in a Changing Environment (3 hours)

  - **Graduate Courses**

    The following courses are offered through our Graduate Program.

    - GRC610: New Media Studies (3 hours)
    - GRC620: The Rise and Influence of Social Media (3 hours)
    - GRC630: New Design Tools 1 (3 hours)
    - GRC640: Campaigns (3 hours)
    - GRC650: Visualization (3 hours)
    - GRC660: Copyright, Licensing, and Ethics (3 hours)
    - GRC670: New Design Tools 2 (3 hours)
    - GRC675: International Design (3 hours)
    - GRC690: Capstone 2: The Non-profit Campaign (3 hours)
The Carroll University Master of Science in Physician Assistant Studies Program has Provisional Accreditation from the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) and approval from HLC/NCA.

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 highly skilled, interdisciplinary prepared primary care physician assistants who demonstrate the medical knowledge to provide optimal patient care.
2. To develop highly skilled primary care physician assistants who are prepared using an interdisciplinary approach and who regularly assess, evaluate and improve their patient care practices.
3. To develop highly skilled primary care physician assistants who demonstrate interpersonal and communication skills that result in effective information exchange with culturally diverse patients and families, professional associates, and a diverse health care system.

The curriculum includes core knowledge about the established and evolving biomedical, clinical prepartatory, behavioral and social sciences; interpersonal and communication skills; informatics 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 Health Sciences Area's 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 true problem-based learning experience (Capstone). 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 inter-disciplinary health care and graduate environment that promotes interdisciplinary clinical practice and life-long learning. Ongoing self, student, peer, program, and profes- sional assessment occurs to ensure that the program is reflective of optimal practice.

The physician assistant studies program is a cohort model, 24 months in length, requiring 110 credit hours to complete. The first year, Year 1 of curriculum, is 12 months and consists of 62 credit hours of didactic courses and integrated service-learning practicums in medically underserved communities in southeastern Wisconsin. Year 2 of the curriculum (consisting of 48 credits), is 12 months of clinical rotations plus the completion of a Capstone project.

The Carroll University Master of Science in Physician Assistant Studies Program requires a bachelor's degree and satisfaction of prerequisite coursework. The program admits qualified students regardless of race, color, creed, gender, age, sexual orientation, marital status, national or ethnic origin or handicap that does not interfere with the performance of professional physician assistant practice as provided by law.

Carroll University will be using Central Application Service for Physician Assistants (CASPA) to collect admission materials which will be forwarded to the university.

**Timeline for Admission Process**

The application deadline date is Oct. 1. All materials (including Verified CASPA file) must be received by Carroll University on or before this date. Please note that verification of application of materials might take up to 4-6 weeks. Candidates will be chosen for on-campus interviews in October-January. Twenty positions will be offered each year. Admission decisions are generally finalized in late spring.

**Required Application Materials:**

- Verified CASPA application including:
  - Three letters of reference are required, preferably from a college instructor, a supervisor from work or volunteer clinical experience, and a health care professional such as PA, NP, MD or DO. Letters of reference must be submitted via CASPA.
  - List of coursework in progress.
  - Carroll University PA Program Supplemental Application.
- Official GRE score report using program code 0409. By entering program code 0409 your GRE exam score will automatically be sent to CASPA and considered official submission by Carroll University.

**Required Prerequisites:**

Compliance with the following requirements must be completed prior to beginning the physician assistant program. Completion of all prerequisites is required prior to June 1, 2015.

**GPA:** Cumulative GPA and science GPA of 3.0 or greater on a 4.0 scale.
Required Prerequisites

- Biology Sciences - 5 semesters of biology intended for science majors.
  
  Biological science courses must include the following:
  
  - Anatomy (or combined anatomy and physiology)
  - Physiology (or combined anatomy and physiology)
  - Microbiology
  
  Suggested additional biological sciences include:
  
  - Genetics
  - Cell Biology
  - Immunology
  - Endocrinology
  - Upper division biological science related to medicine

- Chemistry - 4 semesters of chemistry intended for science majors.
  
  Suggested Chemistry course options include:
  
  - General Chemistry
  - Inorganic Chemistry
  - Biochemistry
  - Organic Chemistry

- Psychology - 1 semester
  
  Suggested Psychology course options include:
  
  - General Psychology
  - Developmental Psychology
  - Lifespan Psychology
  - Abnormal Psychology

- Statistics - 1 semester

Other courses highly recommended for success in PA education:

- Pathophysiology
- Medical Terminology
- Epidemiology
- Pharmacology
- Spanish language

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, statistics and pre-calculus. 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 proven 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 may modify certain course requirements in order to provide persons who are handicapped with an opportunity to achieve results equal to those of a person who is not handicapped, there are no substitutes for the following essential skills. The applicant must initially meet these requirements to gain admission to the program, and must also continue to meet the University’s published technical standards throughout participation in the program. Technical standards may be revised from time to time to meet accreditation or program needs.

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 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. 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 physician assistant program.

- 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 and 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 medical insurance. Those who are covered by a family or personal policy must provide the insuring company's name and the policy number on a waiver form 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.

- Academic Progression

**ACADEMIC PROGRESSION**

Academic Progression Standards

**Year – 1 / Didactic Progression Standards**

1. A grade of C or better is required in all physician assistant year-1 courses. A student is placed on academic probation if they receive a letter grade of D or F in any physician assistant course. The student must repeat that course the next time it is offered before progressing to subsequent courses. Due to course sequencing within the program, this will delay the student's graduation date. When repeating a physician assistant course, a student may be required to successfully complete ancillary learning experiences including auditing other courses in that semester or completing additional coursework due to changes in program curriculum. A course may be repeated only one time. A student receiving a D or F in any two physician assistant courses will be dismissed from the program.

To be removed from academic probation, the student must receive a grade of C or better when he/she repeats that course and satisfactorily complete all required ancillary learning experiences including auditing other courses or additional coursework. The student also must receive a grade point average of 2.85 or greater for all enrolled courses. If a student fails to meet this criterion for removal from academic probation, he/she will be dismissed from the program.

2. A student must obtain a grade point average of 2.85 or better each semester in year-1. If a student earns a year-1 semester grade point average of 1.99 or less, he/she will be dismissed from the program. If a student earns a year-1 semester grade point average between 2.00 to 2.84, he/she will be placed on academic probation. The student may continue in the program as long as he/she received a C or better in all courses during that semester. If a class is repeated, graduation will be delayed.

To be removed from academic probation, the student must earn a year-1 grade point average of 2.85 or better in the following semester or a grade of BC or better in the first clinical rotation in the following semester. If a student fails to meet this criterion for removal from academic probation, he/she will be dismissed from the program.

**Year – 2 / Academic Progression Standards**

1. Students must receive a grade of BC or better in all physician assistant year-2 courses. If a student receives a grade of C or lower in any year-2 course, the student will be placed on academic probation. If a student receives a grade of C or lower in any year-2 course, he/she must repeat the course. Due to course/rotation scheduling, this may delay the student's graduation date.

**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 year 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 core PA program faculty, the PA Program Director and faculty from physical therapy, athletic training and nursing. The purpose of the Health Science Academic Progress Committee is to ensure that every graduate 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.

If the academic progression standards allow and the HSAPC decides to allow a student to complete remediation and continue in the program, the student will meet with the PA Student Progress Committee. The goal of this meeting is for the PA faculty and director to gain insight into why the student is having difficulty so that the committee can work with the student to redress the deficiencies. Other than the student, administrative assistant, witnesses as applicable and the committee members, no one else will be present at the meeting. If the sanction from the HSAPC includes academic remediation, the SPC will determine the nature of the remediation, monitor the progress of the remediation and return the student to HSAPC if he/she fails to meet the guidelines of remediation. The student will then either be placed on probation or dismissed from the program. Students will also meet with the SPC if they have received negative comments on clinical rotations or are accused of unethial behavior, such as lack of professionalism, dishonesty, theft, or violation of patient confidentiality. (See Disciplinary Procedures in the Student Handbook.)
SPC will notify the student within five working days of their decision.

- 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 may 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 $28,090 per year plus $1025 for fees for the 2013-2014 Academic Year. Tuition for students beginning after June 2014 has not yet been determined.

The total program costs for students in the 2013-2014 Master of Physician Assistant Studies Program will be approximately $59,000.

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**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Equipment</td>
<td>$1,200.00*</td>
</tr>
<tr>
<td>Uniforms</td>
<td>$140.00</td>
</tr>
<tr>
<td>Books (didactic and clinical years)</td>
<td>$2,400.00</td>
</tr>
<tr>
<td>AAPA dues (highly recommended)</td>
<td>$75.00</td>
</tr>
<tr>
<td>WAPA dues (highly recommended)</td>
<td>$10.00</td>
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</table>
Physician Assistant Studies Program

<table>
<thead>
<tr>
<th>Drug screen</th>
<th>$100.00/year**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Rotation Tracking System</td>
<td>$75.00</td>
</tr>
<tr>
<td>BLS/ACLS training</td>
<td>$270.00</td>
</tr>
</tbody>
</table>

* 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 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 of the Master of Science in Physician Assistant Studies program, students are highly encouraged not to work during their first year. Students are not allowed to work off campus during the second year except during breaks between clinical rotations. 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: 112 Credits

Curriculum: Graduate Year 1

Year 1 total credits: 62 credits

- Summer - 17 credits
  - 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 hour)
  - PHA504: Intro to Clinical Medicine (2 hours)
  - PHA523: Foundations of Cultural Competence and Health Disparities I (1 hour)

- Fall - 18 credits
  - PHA505: Clinical Medicine I (5 hours)
  - PHA507: Pharmacotherapy and Pathophysiology I (4 hours)
  - PHA509: Clinical Diagnostics I (2 hours)
  - PHA511: Behavioral Medicine (2 hours)
  - PHA517: Pediatrics (2 hours)
  - PHA519: OB/Gyn (2 hours)
  - PHA521: Clinical Decision Making I (2 hours)
  - PHA524: Foundations of Cultural Competence and Health Disparities II (1 hour)

- Winter - 5 credits
  - PHA513: Evidence Based Medicine and Research (2 hours)
  - PHA514: Medical Ethics (2 hours)
  - PHA518: Geriatrics (1 hour)

- Spring - 17 credits
  - PHA506: Clinical Medicine II (5 hours)
  - PHA508: Pharmacotherapy and Pathophysiology II (4 hours)
  - PHA510: Clinical Diagnostics II (2 hours)
  - PHA516: Emergency Medicine (2 hours)
  - PHA520: Surgery (3 hours)
  - PHA522: Clinical Decision Making II (2 hours)
  - PHA525: Foundations of Cultural Competence and Health Disparities III (1 hour)

Curriculum: Graduate Year 2

- Required Clinical Rotations
  - PHA620: Emergency Medicine Supervised Clinical Practice (8 hours)
Physician Assistant Studies Program

- PHA621: Family Medicine Supervised Clinical Practice (8 hours)
- PHA622: General Internal Medicine Supervised Clinical Practice (8 hours)
- PHA623: General Surgery Supervised Clinical Practice (6 hours)
- PHA625: Pediatrics Supervised Clinical Practice (4 hours)
- PHA627: Psychiatry and/or Behavioral Medicine Supervised Practice (4 hours)
- PHA628: Elective Supervised Clinical Practice (4 hours)

- Required Capstone
  - PHA630: Capstone (2 hours)

Graduate Courses

The following courses are offered through our Graduate Program.

- PHA500: Human Gross Anatomy (6 hours)
- PHA500L: Human Gross Anatomy Laboratory
- PHA501: Medical Physiology (4 hours)
- PHA502: Patient Assessment-History and Physical Exam (4 hours)
- PHA502L: Patient Assessment-History and Physical Exam Laboratory
- PHA503: Intro to Physician Assistant Profession (1 hour)
- PHA504: Intro to Clinical Medicine (2 hours)
- PHA505: Clinical Medicine I (5 hours)
- PHA506: Clinical Medicine II (5 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 hour)
- PHA513: Evidence Based Medicine and Research (2 hours)
- PHA514: Medical Ethics (2 hours)
- PHA515: Clinical Procedures (2 hours)
- PHA516: Emergency Medicine (2 hours)
- PHA517: Pediatrics (2 hours)
- PHA517L: Pediatrics Laboratory
- PHA518: Geriatrics (1 hour)
- PHA519: OB/Gyn (2 hours)
- PHA519L: OB/Gyn Laboratory
- PHA520: Surgery (3 hours)
- PHA520L: Surgery Laboratory
- PHA521: Clinical Decision Making I (2 hours)
- PHA521L: Clinical Decision Making I Laboratory
- PHA522: Clinical Decision Making II (2 hours)
- PHA522L: Clinical Decision Making II Laboratory
- PHA523: Foundations of Cultural Competence and Health Disparities I (1 hour)
- PHA524: Foundations of Cultural Competence and Health Disparities II (1 hour)
- PHA525: Foundations of Cultural Competence and Health Disparities III (1 hour)
- PHA526: Foundations of Cultural Competence and Health Disparities IV (1 hour)
- 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 (6 hours)
- PHA625: Pediatrics Supervised Clinical Practice (4 hours)
- PHA627: Psychiatry and/or Behavioral Medicine Supervised Practice (4 hours)
- PHA628: Elective Supervised Clinical Practice (4 hours)
- PHA630: Capstone (2 hours)

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Master of Software Engineering and Graduate Certificate in Software Engineering

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
- Object Oriented 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 soft- ware 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 12 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)
- CSC603: Networking - Design and Implementation (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)

**Plus a graduate level computer science elective**

- Graduate 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 usually take Computer Science 506, 550, 560, 591, and 640. Students must earn C or better in each of the courses to be counted towards the certificate. Only courses with grade B or better can be credited towards the Master of Software Engineering degree if the students is later admitted to the MSE degree program.

- 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 cumulative GPA of 2.75 or higher
2. Completed Master of Software Engineering Admission Form
3. Official transcripts from all undergraduate institutions attended
4. Résumé that describes work experience, computer programming background, and professional interests
5. If the applicant's native language is not English and did not complete his/her undergraduate degree in an English speaking country, an official TOEFL or IELTS or MELAB score is required and sent directly from the testing agency. The minimum required TOEFL score is: 79 (Internet based test) or 213 (computer based test) or 550 (paper based test). The institution code for Carroll University is 1101. The minimum required IELTS score is: 6. The minimum MELAB score is: 85.
6. Letter of recommendation (professional reference preferred if the applicant has professional work experience)

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 2013-14 is $625 per credit.

- **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)
- CSC580: Information Tech Management (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)
Graduate Studies at Carroll

Carroll University offers increasingly varied opportunities to earn graduate degrees. Currently, the University offers the Master of Business Administration, the Master of Physician Assistant Studies, the Master of Education, the entry-level Doctor of Physical Therapy, and the Master of Software Engineering. Four emphases are available within the Master of Education degree: curriculum and instruction, adult and continuing education, health education, and community health educator.

Graduate education focuses on intellectual challenge and the development of critical thinking skills. Working professionals are encouraged to reflect on their current and future practice. Recognizing the compelling need for continuing education today, Carroll’s graduate programs are designed to stay abreast of the latest knowledge in each field of study.

**BENEFITS OF GRADUATE WORK AT CARROLL**

Carroll’s graduate programs are well suited to the needs of working professionals. While the Entry-level Doctor of Physical Therapy program and the Master of Physician Assistant Studies require full-time attendance, the Business Administration, Graduate Education and Software Engineering programs are intended to be completed on a part-time basis. Entire degrees are available through evening attendance. Graduate students in these programs may enroll on a year-round basis, while studying at their own pace. Individualized advising is available through faculty advisers supplemented by counselors in the Office of Part-time Studies and the Office of Admission.

Graduate students are encouraged to apply learning to their current positions. They benefit from the opportunity to network with others in their field as they develop professional expertise. Classes are highly interactive as students and faculty share ideas, questions and viewpoints. Educational relevance is a primary commitment within each graduate curriculum.
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.
   - 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 professionally.
   - 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.
Regional Accreditation

Accredited by The Higher Learning Commission and a member of the North Central Association. The commission's address, phone number and website are as follows: 230 South La Salle St., Suite 7-500, Chicago, Illinois, 60604-1413. Phone: 800.621.7440. Website: www.ncahlc.org

In addition, several individual academic programs have additional accreditation's:

- **Athletic Training**: is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). http://www.caate.net/
- **Chemistry and Biochemistry**: approved by the Committee on Professional Training of the American Chemical Society
- **Education**: full program approval through the Wisconsin Department of Public Instruction
- **Exercise Science**: National Strength and Conditioning Recognition. The program also fulfills the American College of Sports Medicine Institutional Evaluation Standards.
- **Nursing**: The Baccalaureate degree in Nursing at Carroll University is accredited by the Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC 20036, 202-887-6791. The nursing program is also approved by the Department of Regulation and Licensing, Wisconsin State Board of Nursing.
- **Physical and Health Education**: approved by the Wisconsin Department of Public Instruction
- **Physical Therapy**: The Doctor of Physical Therapy Program at Carroll University is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: accreditation@apta.org; website: http://www.capteonline.org.
- **Physician Assistant Studies**: The program was granted 7 year accreditation from "The Accreditation Review Commission on Education for the Physician Assistant" (ARC-PA) in 2013. The Accreditation Review Commission on Education for the Physician Assistant is the accrediting agency that protects the interests of the public and physician assistant profession by defining the standards for physician assistant education and evaluating physician assistant educational programs within the territorial United States to ensure their compliance with those standards.

Notice of Non-Discrimination Policy

Carroll University does not discriminate in any manner contrary to law or justice on the basis of race, color, sex, age, religion, sexual orientation, national origin, disability or veteran's status in administration of its educational, admission, financial aid, athletic or other university policies and programs nor in the employment of its faculty and staff.
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.
### Academic Policies

- Academic Appeals
- Academic Honesty
- Academic Standing
- Adding or Dropping Courses
- Attendance
- Awarding of Degrees
- Credits
- Dismissal
- Grading System
- Graduation
- Incomplete Grading
- Independent Study
- Internships or Work-Oriented Experiences
- Medical or Personal Leave
- Method of Course Delivery
- Policy on Student Records
- Suspension
- Transcripts
- Withdrawal Policy
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/).
Exercise Physiology students please see details for Academic Progression policy within the Master of Science of Exercise Physiology Program.

Nursing students please see details for the Academic Progression policy within the Master of Science in Nursing Program.

Physical Therapy students, please see details for the Academic Progression policy within the Physical Therapy Program.

Physician Assistant students please see details for the Academic Progression policy within the Physician Assistant Program.

All Master of Business Administration, Master of Education, Master of Science in Graphic Engineering and Master of Software Engineering students are subject to the following policy regarding academic standing.

### 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 will be placed on academic probation if a grade of C is earned in any graduate course and/or if the earned GPA is between 2.5 and 3.0. In the Master of Education Program, courses in which grades of C or lower are earned do not count toward certification, licensure, or degree completion. Students currently on probation must earn a better than B average in the subsequent semesters after being placed on probation. Students will be continued on probation with a better than B average when the student’s semester GPA is greater than a 3.0 but their cumulative GPA is not yet a 3.0. NOTE: Students may be continued on probation for one semester only.

### 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.
Credits

The unit of credit is the semester hour. It is defined as one 50-minute class period per week (or its equivalent) for one semester. Thus a lecture-discussion course that meets three 50-minute periods a week ordinarily carries three semester credits. See individual program for laboratory credit equivalencies.
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).
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>TP</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. 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/ 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.

FERPA 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
Suspension

All graduate students with 6 or more attempted credits are eligible for suspension.

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.

Students currently on probation who fail to meet the terms of their probation will be suspended for one semester and the adjacent summer.
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 331 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.
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.
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>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master of Business Administration</td>
<td>$592 per credit</td>
</tr>
<tr>
<td>Master of Science in Exercise Physiology</td>
<td>$515 per credit</td>
</tr>
<tr>
<td>Master of Science in Exercise Physiology - Program Fee</td>
<td>$500 per semester (fall, spring, and summer) (non-refundable)</td>
</tr>
<tr>
<td>Master of Science in Graphic Communication</td>
<td>$540 per credit</td>
</tr>
<tr>
<td>Graduate Program in Education</td>
<td>$495 per credit</td>
</tr>
<tr>
<td>Education credit for work experience</td>
<td>$230 per credit</td>
</tr>
<tr>
<td>EDU682</td>
<td>$70</td>
</tr>
<tr>
<td>Master of Science Physician Assistant - Year 1</td>
<td>$31,722 per year</td>
</tr>
<tr>
<td>Master of Science Physician Assistant - Year 2</td>
<td>$29,496 per year</td>
</tr>
<tr>
<td>Master of Science Physician Assistant Program Fee</td>
<td>$1,225 per year</td>
</tr>
<tr>
<td>Entry-Level Doctor of Physical Therapy</td>
<td>$715 per credit</td>
</tr>
<tr>
<td>PT Phase Program Fee</td>
<td>$500 per semester</td>
</tr>
<tr>
<td>Master of Software Engineering</td>
<td>$644 per credit</td>
</tr>
<tr>
<td>Software Engineering Program Fee</td>
<td>$100 per semester</td>
</tr>
<tr>
<td>Auditing</td>
<td>$185 per credit</td>
</tr>
<tr>
<td>OCICU online Software Engineering courses</td>
<td>$625 per credit</td>
</tr>
<tr>
<td>OCICU online Education courses</td>
<td>$465 per credit</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, 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. For security reasons, credit card payments will no longer be accepted via telephone.

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>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Session I, 2014</td>
<td>May 8, 2014</td>
</tr>
<tr>
<td>Summer Session II, 2014</td>
<td>June 2, 2014</td>
</tr>
<tr>
<td>Summer Session III, 2014</td>
<td>July 15, 2014</td>
</tr>
<tr>
<td>Fall 2014</td>
<td>September 4, 2014</td>
</tr>
<tr>
<td>Winter 2015</td>
<td>January 2, 2015</td>
</tr>
<tr>
<td>Spring 2015</td>
<td>January 20, 2015</td>
</tr>
<tr>
<td>Summer Session I, 2015</td>
<td>May 7, 2015</td>
</tr>
<tr>
<td>Summer Session II, 2015</td>
<td>June 1, 2015</td>
</tr>
<tr>
<td>Summer Session III, 2015</td>
<td>July 14, 2015</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 user name and password, click on Student>Billing and Payment>View bill. If additional charges are incurred during the semester/session, a statement will be available online at my.carrollu.edu.

Late Fee:

Non-payment Plan Late Fees:

Late Fees will be assessed monthly, at a flat rate of $35.00, on overdue balances of $20.00 or greater.

Monthly Payment Plan (myPAYPLAN):

Enrollment Fee: $50.00 due upon enrollment - per semester

A Late Fee of $35.00 per month will be assessed only if the scheduled monthly installment payment is not received by the due date.

Delinquent accounts occur when the payment terms on a student’s account have not been met. The University has the right to take steps to collect the balance, 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 to collect the balance due. 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 and/or reasonable attorney’s fees. I understand that Carroll University, and/or a collection agency acting on behalf of the University, may contact me regarding any outstanding balance by means of an automated calling system and a pre-recorded message. I agree to be contacted by telephone at any telephone number associated with my account, including wireless telephone numbers.

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**Payment Options**

**DUE DATES:** for payment in full of tuition/fees, room and board each semester/session:

- **Summer I, 2014**: May 8, 2014
- **Summer II, 2014**: June 2, 2014
- **Summer III, 2014**: July 15, 2014
- **Fall 2014**: September 4, 2014
- **Winter 2015**: January 2, 2015
- **Spring 2015**: January 20, 2015
- **Summer I, 2015**: May 7, 2015
- **Summer II, 2015**: June 1, 2015
- **Summer III, 2015**: July 14, 2015

**PAYMENT OPTIONS:**

**Summer 2014, Winter 2015 and Summer 2015**

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 2014**

1. Pay in full on or before the first day of the semester.
2. Enroll (online) in a 4, 5 or 6 month payment plan agreement for Fall 2014. Signup begins June 13, 2014. A $50.00 enrollment fee is due upon enrollment - per semester.
   - 6 month plan: July through December - last day to enroll 7/5/2014.
   - 5 month plan: August through December - last day to enroll 8/5/2014.
   - 4 month plan: September through December - last day to enroll 9/5/2014.

myPAYPLAN will automatically adjust for recalculations of tuition, fees, and other expenses and financial aid. Plans will run per 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. A monthly Late Fee of $35.00 will be assessed if payment is not received by the due date. Payment will be due in full by January 2, 2015. Please contact Judy for information regarding this option at 262-524-7698 or at jedl@carrollu.edu.

**Spring 2015**

1. Pay in full on or before the first day of the semester.
2. Enroll (online) in a 4, 5 or 6 month payment plan agreement for Spring 2015. Signup begins December 15, 2014. A $50.00 enrollment fee is due upon enrollment - per semester.
   - 6 month plan: January through June - last day to enroll 1/5/2015.
   - 5 month plan: January through May - last day to enroll 1/5/2015.
   - 4 month plan: February through May - last day to enroll 2/5/2015.

myPAYPLAN will automatically adjust for recalculations of tuition, fees, and other expenses and financial aid. Plans will run per 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. A monthly Late Fee of $35.00 will be assessed if payment is not received by the due date. Payment will be due in full by May 27, 2015. 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. A full-time student who drops below 9 credits after this date will continue to be billed at full-time rates unless the student withdraws from the University.

To begin the withdrawal process the student must fill out the withdrawal form. This form may be obtained from the Office of Student Success. 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.

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 or 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 2014</th>
<th>SPRING 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdraw on or before:</td>
<td>Withdraw on or before:</td>
</tr>
<tr>
<td>Wednesday, September 3</td>
<td>Monday, January 19</td>
</tr>
<tr>
<td>Monday, September 15</td>
<td>Monday, February 2</td>
</tr>
<tr>
<td>Monday, September 22</td>
<td>Monday, February 9</td>
</tr>
<tr>
<td>Monday, September 29</td>
<td>Monday, February 16</td>
</tr>
<tr>
<td>Monday, October 6</td>
<td>Monday, February 23</td>
</tr>
<tr>
<td>Tuesday, October 7</td>
<td>Tuesday, February 24</td>
</tr>
</tbody>
</table>

Financial aid for part-time students will be adjusted to reflect the final number of credits for which the student is enrolled on the date indicated in the calendar as the last date to add classes. 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.

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 11, 2014 for the fall semester or on Tuesday, January 27, 2015, 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.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Summer I, 2014 - Withdrawal on or before</th>
<th>Summer II, 2014 - Withdrawal on or before</th>
<th>Summer III, 2014 - Withdrawal on or before</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>Wednesday 5/7/2014</td>
<td>Sunday 6/1/2014</td>
<td>Monday 7/14/2014</td>
</tr>
<tr>
<td>75%</td>
<td>Friday 5/9/2014 *</td>
<td>Monday 6/9/2014 *</td>
<td>Tuesday 7/22/2014 *</td>
</tr>
<tr>
<td>25%</td>
<td>Monday 5/12/2014 *</td>
<td>Monday 6/16/2014 *</td>
<td>Tuesday 7/29/2014 *</td>
</tr>
</tbody>
</table>
Refund Policies

Summer 14 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

<table>
<thead>
<tr>
<th>FALL 2014 Percentage</th>
<th>SPRING 2015 Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdraw on or before:</td>
<td>Withdraw on or before:</td>
</tr>
<tr>
<td>Wednesday, September 3</td>
<td>100%</td>
</tr>
<tr>
<td>Monday, September 15</td>
<td>80%</td>
</tr>
<tr>
<td>Monday, September 22</td>
<td>60%</td>
</tr>
<tr>
<td>Monday, September 29</td>
<td>40%</td>
</tr>
<tr>
<td>Monday, October 6</td>
<td>20%</td>
</tr>
<tr>
<td>Tuesday, October 7</td>
<td>0%</td>
</tr>
</tbody>
</table>

Refunds of room and board fees are available if a resident student officially withdraws from the University. The amount is determined by the refund calculations listed above or, in the case of board fees, actual use, whichever is greater.

Specially timed courses for the Fall 14 and Spring 15 have the following refund schedule:

100% Before the first day of class
75% Before the second day of class
25% Before the third day of class
0% Before the fourth day of class

Tuition Refunds for Winter 2015

Percent of Refund: Withdrawal Date on or before:

Three or four credit courses:
100% January 1, 2015
75% January 5, 2015
50% January 6, 2015

Two credit courses:
100% January 1, 2015
75% January 5, 2015

One credit course and specially timed courses:
100% Before the first day of class
50% Before the second day of class

**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.

Percentage Summer I, 2015 - Withdrawal on or before | Summer II, 2015 - Withdrawal on or before | Summer III, 2015 - Withdrawal on or before
--- | --- | ---
100% Wednesday 5/6/2015 | Sunday 5/31/2015 | Monday 7/13/2015
75% Friday 5/8/2015 * | Monday 6/8/2015 * | Tuesday 7/21/2015 *
* by 4:30 p.m. | * by 4:30 p.m. | * by 4:30 p.m.

Summer 15 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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Charge Textbooks and Supplies to your Student Account

Currently enrolled students who have a PIONEer Card and have no holds on their student account are eligible. BookCHARGE starts 10 business days prior to the start of the semester and ends 10 business days after the semester begins. You will need to show your PIONEer Card at the cash register. Your PIONEer Card will be swiped, which will verify your charge eligibility and then you will sign a charge receipt.

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.
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 five credit hours per semester and full-time status is a minimum of nine 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 March 1st for summer enrollment, April 15th for September enrollment, and November 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 an application and promissory note in order to officially 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 an application and promissory note 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 PLUS loan is available through the Financial Aid Office or on the University web site. 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 graduate students may choose from several options per individual graduate program policy.

Full-time — nine credits or more per semester*
1/2-time — five to eight credits per semester+
Less than 1/2-time — students who carry one to four 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.
Student Affairs

Counseling Services
Disability Policy for Students
Diversity
Student Health Center
Insurance
Spiritual Life Program
Student Activities
Student Handbook
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.
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.
Diversity

At Carroll University, diversity is a critical part of the campus culture. International and multicultural students, faculty, and staff are a vital component of the campus’ richness. The university’s goal is to create an environment that is open and welcoming for all people.

Carroll University is committed to supporting a diverse student body by providing comprehensive student support services and programs that allow students to explore diversity on campus, in the surrounding communities, and across the globe. The Office of Cultural Diversity offers services and programs that support diversity such as cultural programming and activities, ally and mentor programs, diversity training, classroom presentations and more. These programs and services directly benefit the Carroll student body, faculty, and staff, as well as the Waukesha community. In turn, they provide the whole community with opportunities to gain a greater appreciation for the diversity represented on and off campus.
The Health Center at Carroll 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 do stock some medications in the Student Health Center. The nurse practitioners can also perform well physicals and pap smears, tuberculosis (TB) skin tests, complete travel forms, administer vaccines, perform drug screens, and order blood tests. 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.
Insurance

Carroll University is committed to promoting good health to help ensure students’ academic success. With this in mind, Carroll requires all full-time undergraduate and international students to have health insurance coverage. 

- All full time undergraduate students are charged the health insurance fee upon registration.
- If a student has comparable coverage under another insurance policy, he or she may request a waiver from the University-sponsored health insurance plan.
- The deadline to waive the University-sponsored health insurance is one month after classes begin. Students who do not complete the online waiver before the deadline will be charged the health insurance fee.

The waiver form, plan and coverage information, and enrollment form can be found at http://www.carrollu.edu/campuslife/hsinsurance.asp?nav=5763

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.
Spiritual Life Program

The Office of the Chaplain provides opportunities for spiritual growth primarily for students through worship services, campus newspaper articles, student organizations, and personal contact by appointment, drop-in, or e-mail correspondence. The Fellowship of Christian Athletes and Intervarsity Christian Fellowship are among the recognized student organizations on campus; students are welcome to form new organizations; and several other existing student organizations coordinate service projects that may be religious in nature (Habitat for Humanity, Circle K, Greek organizations). One large (seats 180) and one small (seats 18) chapel are regularly available on campus for individual or group gatherings. The Chaplain's Office also provides local contact information for area congregations and community service agencies.
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, Greek life, orientation staff, and the campus radio station. Student Activities provides programs and services ranging from orientation to community service projects to camping equipment rentals, sponsorship of CU@Nite, the weekend programming series, and much more.

**Carroll Outdoor Recreation Education (CORE)**
CORE can help students backpack, paddle, or climb their way to adventure. CORE promotes safe, affordable, environmentally conscious outdoor recreation through trips, instruction, and equipment rental. This program brings to the Carroll community numerous opportunities to explore and develop as individuals, leaders, and citizens through involvement in the outdoors. In addition to offering trips, lectures, and clinics, CORE manages the "CORE store" where students, faculty, and staff can rent tents, coolers, snowshoes, and more.

**Recreation**
Carroll University is a member institution of the National Intramural Recreational Sports Association (NIRSA). The recreation program includes intramural sports, open recreation, group exercise classes, outdoor recreation activities, and cheerleading. Ganfield Gymnasium and Fitness Center and the Pioneer Hall Fitness Center host the cardio equipment, resistance machines and free weight areas. The intramural sport program consists of several different activities including flag football, softball, men's and women's basketball, indoor soccer, and sand volleyball.

**Student Organizations**
Student organizations play an active role in the life of the campus. There are over 50 recognized organizations on campus, including social fraternities and sororities, Student Senate, activities board, cultural diversity organizations, a Habitat for Humanity chapter, religiously affiliated groups, academically focused clubs, and many other groups. Student publications include a newspaper and literary magazine. WCCX is the campus radio station. A wide range of arts organizations is open to students, including some by audition.

**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.
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.
Library services and policies.

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.

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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.
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. The report is available in an electronic version by accessing the following website: http://www.carrollu.edu/campus/safety/pdfs/clearyact.pdf.

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.
Academic Organization

Office of Academic Affairs
Joanne Passaro, Provost

College of Humanities and Social Sciences
Charles Byler, Dean

Department of Communication and Sociology
Barbara King, chair
- Majors: Communication, Criminal Justice, Sociology

Department of English and Modern Languages
Deirdre Keenan, chair
- Majors: English, Professional Writing, Spanish
- Minors only: French, German

Department of History, Political Science and Religious Studies
Kimberly Redding, chair
- Majors: European Studies, Global Studies, History, Philosophy, Political Science/Economics, Political Science, Religious Studies
- Minor only: Medieval and Renaissance Studies, Philosophy

Department of Visual and Performing Arts
Philip Krejcarek, chair
- Majors: Art, Book Art, Graphic Communication, Music, Music Education, Photography, Theatre Arts
- Minor only: Web Design
- Graduate degree: Master of Science Graphic Communication

Department of Education
Kimberly White, chair
- Majors: Elementary Education, Elementary Educational Studies
- Minor only: Secondary Education
- Graduate degree: Master of Education

College of Natural Sciences, Health Sciences and Business
Jane Hopp, Dean

Department of Business, Accounting and Economics
Gregory Kuhlemeyer, chair
- Majors: Accounting, Business Administration, Organizational Leadership
- Minor only: Economics
- Graduate degree: Master of Business Administration

Department of Computational and Physical Sciences
Kevin McMahon, chair
- Minor only: Physics
- Graduate degree: Master of Software Engineering

Department of Health and Medicine
Monika Baldridge, chair
- Majors: Health Sciences, Health Sciences-Medical Sonography, Health Sciences-Radiological Technology, Hispanic Health and Human Services, Pre-Medical Laboratory Sciences, Physical and Health Education, Public Health, Sport and Recreation Management, Therapeutic Recreation Emphasis
- Graduate degree: Master of Science in Physician Assistant Studies

Department of Human Movement Sciences
Thomas Pahnke, chair
- Majors: Athletic Training, Exercise Science, Pre-Occupational Therapy, Pre-Physical Therapy
- Minor only: Sports Nutrition
- Graduate degrees: Doctor of Physical Therapy, Master of Science in Exercise Physiology

**Department of Life Sciences**

Denise Guastello (Animal Behavior, Psychology) and Michael Schuder (Animal Behavior, Biology and Environmental Sciences and Marine Sciences), coordinators
- Majors: Animal Behavior, Biology, Environmental Science, Marine Sciences, Psychology

**Department of Nursing**

Angela Brindowski, chair
- Major: Nursing

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The corporate name of the University is Carroll University, Inc.

**Officers**

**Chair**
James G. DeJong '73

**Chair Emeritus**
Pershing E. MacAllister '40

**Vice Chair**
Jose A. Olivieri '78

**Treasurer**
James M. Schneider '74

**Secretary**
Charmaine L. Ponkratz '77

**President of the University**
Douglas N. Hastad

**Trustees**

Ted H. Baker ’71, Chairman, Pershing Trading Company, Retired, New Jersey
Deborah A. Block ’74, Senior Pastor, Immanuel Presbyterian Church, Milwaukee, Wisconsin
Anthony W. Bryant, Chairman and Owner, Century Fence Company, Pewaukee, Wisconsin
Dorval R. Carter ’79, Deputy Administrator, Federal Transit Authority, Washington, D.C.
Reynolds R. Challoner ’64, President, NEW Paradigm Advisors LLC, Sanibel, Florida/Green Bay, Wisconsin
Jefferson V. DeAngelis ’80, CIO, Northwestern Mutual, Milwaukee, Wisconsin
James G. DeJong ’73, Attorney at Law-President, O’Neil, Cannon, Hollman, DeJong, & Laing, S.C., Milwaukee, Wisconsin
Guy J. Di Spigno ’69, President, Executive Synergies, Inc., Northbrook, Illinois
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
Douglas N. Hastad, President, Carroll University, 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, Teacher, Windward Child Development Center, Alpharetta, Georgia
Alice Crofts Morava ’52, Vice President and CEO, Stuart W. Johnson & Co., Inc. Lake Geneva, Wisconsin
Terry M. Murphy, Executive Vice President and Chief Financial Officer (retired), A. O. Smith Corporation, Milwaukee, Wisconsin
James M. Schneider ’74, Executive Chairman, Horizon Bank, Austin, Texas
Dennis G. Panches ’58, President, Payback, L.P., Waukesha, Wisconsin
Renee H. Ramirez, Executive Director, Waukesha County Community Dental Clinic, Waukesha, Wisconsin
Joseph P. Zvesper ’76, Chairman, President & CEO, American Appraisal Associates, Inc., Milwaukee, Wisconsin

**Alumni Representative**

Sandra L. Cunningham, ’78, Director, PMO, Quality and Professional Service, 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

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Carroll University Graduate Faculty 2014-2015

Douglas N. Hastad, 2006
President
B.A., Concordia College, Moorhead, Mn.
M.S., Washington State University
Ed.D., Arizona State University

John McCarthy, 2013
Associate Professor of Physical Therapy
B.S. University of Wisconsin - Madison
M.S. University of Wisconsin - Madison
Ph.D., University of Wisconsin - Madison

Joanne Passaro, 2007
Provost and Vice President for Academic Affairs
B.A., Ph.D., Duke University

M.S. PT., Texas Women's University

Monika Baidridge, 2004
Associate Professor of Biology and Physician Assistant Studies
B.S., Marquette University
Ph.D., University of Wisconsin-Milwaukee

David B. MacIntyre, 1996
Clinical Associate Professor of Exercise Science
B.S., Hope College
M.S., Pennsylvania State University

Barbara Bahrke, 2012
Program Director/Clinical Assistant Professor of Physician Assistant Studies
B.S., Marquette University
MPAS, Marquette 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

Monika Baidridge, 2004
Associate Professor of Biology and Physician Assistant Studies
B.S., Marquette University
Ph.D., University of Wisconsin-Milwaukee

Michael G. Mortensen, 2011
Senior Lecturer in Graphic Communication
B.Arch. University of Wisconsin - Milwaukee
M.Arch University of Houston

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

Sara North, 2012
Lecturer of Physical Therapy
B.S., University of Wisconsin - Madison
DPT, Northwestern University

Daniel Becker, 2006
Assistant Professor of Graphic Communication
B.A., University of Wisconsin-Eau Claire
M.A. DePaul University

Gary L. Olsen, 1975
Associate Professor of Accounting
B.S., Northern Michigan University M.B.A., University of Illinois
Ph.D., Marquette University

Mathias Bolllmus, 2007
Instructor in Business
B.A., Carroll College
M.B.A., University of Wisconsin - Milwaukee
Ph.D. University of Wisconsin - Milwaukee

Thomas Pahnke, 2006
Clinical Associate Professor of Physical Therapy and Athletic Training
B.S.P.T., University of Wisconsin-Madison
M.S., Purdue University

Barbara Bahrke, 2012
Program Director/Clinical Assistant Professor of Physician Assistant Studies
B.S., Marquette University
MPAS, Marquette University

Richard J. Penlesky, 2002
Professor of Business
B.S., M.B.A., Marquette University
D.B.A., Indiana University

Sara Degre, 2000
Associate Professor of Physical Therapy
B.S.P.T., M.S.P.T., Finch University of Health Sciences/The Chicago Medical School

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

Rose Ann Donovan, 2002
Assistant Professor of Education
B.S., University of Wisconsin-Madison
M.A., Silver Lake College

Brenda D. Reeves, 2010
Clinical Assistant Professor of Exercise Science
B.A., M.Ed. Exercise Science, Bowling Green State University
Ph.D., University of Toledo

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

Elise Riepenhoff, 2007
Assistant Professor of Education
B.S., M.S., University of Wisconsin- Milwaukee

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

Wilma Robinson, 2001
Associate Professor of Education
B.A., Howard University
M.P.A., University of Wisconsin-Oshkosh
Ph.D., University of Wisconsin-Madison

Jessica M. Grusnick, 2014
Clinical Coordinator and Clinical Assistant Professor of Physician Assistant Program
B.S., Marquette University
MSPAS, Marquette University

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

B.S., University of Wisconsin-Madison
M.S., University of Wisconsin- Madison
Ph.D., University of Wisconsin - Madison

Dennis M. Debrecht, 1984
Associate Professor of Economics
B.A., Benedictine College
Ph.D., Iowa State University

Barbara Bahrke, 2012
Program Director/Clinical Assistant Professor of Physician Assistant Studies
B.S., Marquette University
MPAS, Marquette University

B.A., M.B.A., Marquette University
D.B.A., Indiana University

Sara North, 2012
Lecturer of Physical Therapy
B.S., University of Wisconsin - Madison
DPT, Northwestern University

Sara Degre, 2000
Associate Professor of Physical Therapy
B.S.P.T., M.S.P.T., Finch University of Health Sciences/The Chicago Medical School

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

Brenda D. Reeves, 2010
Clinical Assistant Professor of Exercise Science
B.A., M.Ed. Exercise Science, Bowling Green State University
Ph.D., University of Toledo

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Assistant Professor of Education
B.S., M.S., University of Wisconsin- Milwaukee

Wilma Robinson, 2001
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M.P.A., University of Wisconsin-Oshkosh
Ph.D., University of Wisconsin-Madison

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

Dennis M. Debrecht, 1984
Associate Professor of Economics
B.A., Benedictine College
Ph.D., Iowa State University

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
Russell W. Harland, 2010
Clinical Assistant Professor
Medical Director of the Physician Assistant Program
B.S., Carroll College
M.D., Medical College of Wisconsin
Kimberly K. Hofkamp, 2005
Assistant Professor of Education
B.S., University of Wisconsin-Madison
M.A.E., Silver Lake College
Jane F. Hopp, 1994
Dean of the College of Natural Sciences, Health Sciences and Business
Associate Professor of Physical Therapy
B.S.P.T., University of Wisconsin-Madison
M.S., Medical College of Wisconsin
Ph.D., University of Illinois at Chicago
Chenglie Hu, 2001
Professor of Computer Science
B.S., M.S., East China Normal University
Ph.D., Wichita State University
Gerald L. Isaacs, 1978
Professor of Computer Science
B.S., University of Minnesota
M.S., Ph.D., University of Iowa
Catherine E. Jorgens, 2006
Risk Manager
Lecturer in Business
B.A., University of Wisconsin-Madison
J.D., University of Wisconsin School of Law
Michael G. Konemann, 2000
Assistant Professor of Education
B.S., M.S., University of Wisconsin-Whitewater
Kerry Kretchmar, 2011
Assistant 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
Michael G. Levas, 1985
Associate Professor of Business
B.S., M.B.A., Northern Illinois University
Gregory J. Schultz, 2002
Senior Lecturer of Business
B.S., Carroll College
M.S., Cardinal Stritch University
Marie S. Schwerm, 2011
Lecturer of Computer Science
B.A., Mount Mary College
M.S., Marquette University
Kathleen A. Shields, 2005
Clinical Assistant Professor of Physical Therapy
B.S.P.T. University of Wisconsin-Madison,
M.S., University of Wisconsin-Milwaukee
Cheryl L. Sinitz, 2014
Clinical Assistant Professor of Physician Assistant Studies
B.S., University of Wisconsin-La Crosse
MPAS, Marquette University
Jeff Sischo, 2013
Clinical Assistant Professor of Physical Therapy
B.S., University of Wisconsin - Madison
DPT., Marquette University
Rachel L. Stickles, 2008
Assistant Professor of 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
OTS, Creighton University
Carol D. Tallarico, 2014
Executive Director of the Department 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
Edie M. White, 2010
Assistant Professor of Education
B.A., Mundelein College
M.S., National Louis University
Ph.D., University of Wisconsin-Madison
Kimberly White, 2009
Assistant 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
<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 29</td>
<td>Friday</td>
<td>8 a.m - 1 p.m.</td>
<td>Freshman “Move in Day”.</td>
</tr>
<tr>
<td>August 31</td>
<td>Sunday</td>
<td>10 a.m - 1 p.m.</td>
<td>All returning students “Move in Day”.</td>
</tr>
<tr>
<td>August 31</td>
<td>Sunday</td>
<td>10 a.m. and 5 p.m.</td>
<td>Orientation for new part-time and full-time transfer students.</td>
</tr>
<tr>
<td>September 1</td>
<td>Monday</td>
<td></td>
<td>Labor Day</td>
</tr>
<tr>
<td>September 2</td>
<td>Tuesday</td>
<td>6 p.m.</td>
<td>First-half semester MBA courses begin.</td>
</tr>
<tr>
<td>September 3</td>
<td>Wednesday</td>
<td></td>
<td>Opening Day convocation.</td>
</tr>
<tr>
<td>September 4</td>
<td>Thursday</td>
<td>7 a.m.</td>
<td>Last day to decrease or cancel meal plans.</td>
</tr>
<tr>
<td>September 9</td>
<td>Tuesday</td>
<td></td>
<td>First-half semester MBA courses: last day to add.</td>
</tr>
<tr>
<td>September 11</td>
<td>Thursday</td>
<td></td>
<td>FA14 UNGD and GRAD courses begin. (New registrations and schedule changes must be done with add/drop cards)</td>
</tr>
<tr>
<td>September 17</td>
<td>Wednesday</td>
<td></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 23</td>
<td>Tuesday</td>
<td></td>
<td>First-half semester MBA courses: last day to drop or change to audit.</td>
</tr>
<tr>
<td>September 25</td>
<td>Thursday</td>
<td></td>
<td>Last day to turn in grade appeals to Academic Affairs for the SP14 and SU14 semesters.</td>
</tr>
<tr>
<td>September 30</td>
<td>Tuesday</td>
<td></td>
<td>Last day to select S/U grading or to change from S/U to letter grading. First-half-semester classes: last day to drop or change to audit. (Non-MBA courses).</td>
</tr>
<tr>
<td>October 6</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>October 14</td>
<td>Tuesday</td>
<td>9 a.m.</td>
<td>Mid-term grades due.</td>
</tr>
<tr>
<td>October 18</td>
<td>Saturday</td>
<td></td>
<td>Homecoming</td>
</tr>
<tr>
<td>October 23</td>
<td>Thursday</td>
<td></td>
<td>First-half semester MBA courses end.</td>
</tr>
<tr>
<td>October 24</td>
<td>Friday</td>
<td>5 p.m.</td>
<td>Fall break begins. Campus housing remains open for fall break.</td>
</tr>
<tr>
<td>October 28</td>
<td>Tuesday</td>
<td>6 p.m.</td>
<td>Second-half semester MBA courses begin.</td>
</tr>
<tr>
<td>October 29</td>
<td>Wednesday</td>
<td></td>
<td>UNGD and remaining GRAD: classes resume.</td>
</tr>
<tr>
<td>November 3</td>
<td>Monday</td>
<td></td>
<td>FA14: Last day to drop classes or to change to audit (NON-MBA courses).</td>
</tr>
<tr>
<td>November 3</td>
<td>Monday</td>
<td>9 a.m.</td>
<td>Registration packets available ONLINE for all current students for SP15.</td>
</tr>
<tr>
<td>November 3</td>
<td>Monday</td>
<td></td>
<td>Advising begins for all students for SP15: required for UNDG students. Recommended for GRAD students. Deadline for submitting work to instructors for incompletes received the previous spring and summer.</td>
</tr>
<tr>
<td>November 4</td>
<td>Tuesday</td>
<td></td>
<td>Second-half-semester classes: last day to select S/U grading or change from S/U to letter grading (Non-MBA courses).</td>
</tr>
<tr>
<td>November 4</td>
<td>Tuesday</td>
<td></td>
<td>Second-half semester MBA courses: last day to add.</td>
</tr>
<tr>
<td>November 5</td>
<td>Wednesday</td>
<td></td>
<td>Incomplete grades lapse in “F” if no grade submitted from spring and summer.</td>
</tr>
<tr>
<td>November 6</td>
<td>Thursday</td>
<td>9 a.m.</td>
<td>Registration begins for WN15.</td>
</tr>
<tr>
<td>November 17</td>
<td>Monday</td>
<td></td>
<td>Second-half semester classes: last day to drop or change to audit (Non-MBA courses).</td>
</tr>
<tr>
<td>November 18</td>
<td>Tuesday</td>
<td></td>
<td>Registration begins for currently enrolled students for SP15.</td>
</tr>
<tr>
<td>November 18</td>
<td>Tuesday</td>
<td></td>
<td>Second-half semester MBA courses: last day to drop or change to audit.</td>
</tr>
<tr>
<td>November 24</td>
<td>Monday</td>
<td></td>
<td>Registration begins for all GRAD students for SP15.</td>
</tr>
<tr>
<td>November 26</td>
<td>Wednesday</td>
<td></td>
<td>Registration begins for all new students for SP15.</td>
</tr>
<tr>
<td>November 26</td>
<td>Wednesday</td>
<td></td>
<td>Thanksgiving recess begins.</td>
</tr>
<tr>
<td>November 26</td>
<td>Wednesday</td>
<td></td>
<td>Campus housing closes.</td>
</tr>
<tr>
<td>November 26</td>
<td>Wednesday</td>
<td></td>
<td>MBA courses will meet.</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Time</td>
<td>Event</td>
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<tr>
<td>-----------</td>
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<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>November 30</td>
<td>Sunday</td>
<td>Noon</td>
<td>Campus housing opens to students.</td>
</tr>
<tr>
<td>December 1</td>
<td>Monday</td>
<td>7 a.m.</td>
<td>Classes resume (All UNDG and GRAD).</td>
</tr>
<tr>
<td>December 10</td>
<td>Wednesday</td>
<td></td>
<td>Last day of classes.</td>
</tr>
<tr>
<td>December 11</td>
<td>Thursday</td>
<td></td>
<td>Reading Day: No classes; final exams for Thursday evening &amp; Tuesday/Thursday evening classes.</td>
</tr>
<tr>
<td>December 12-17</td>
<td>Fri.-Wed.</td>
<td></td>
<td>Final examinations.</td>
</tr>
<tr>
<td>December 18</td>
<td>Thursday</td>
<td>Noon</td>
<td>Campus housing closes.</td>
</tr>
<tr>
<td>December 22</td>
<td>Monday</td>
<td>9 a.m.</td>
<td>Final grades due.</td>
</tr>
</tbody>
</table>

**WINTER Session 2015**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1</td>
<td>Thursday</td>
<td>Noon</td>
<td>Campus housing opens for winter session students and approved groups.</td>
</tr>
<tr>
<td>January 2</td>
<td>Friday</td>
<td>8 a.m.</td>
<td>Classes begin. (New registrations and schedule changes must be done with add/drop cards)</td>
</tr>
<tr>
<td>January 5</td>
<td>Monday</td>
<td></td>
<td>Last day to add.</td>
</tr>
<tr>
<td>January 6</td>
<td>Tuesday</td>
<td></td>
<td>Last day to drop.</td>
</tr>
<tr>
<td>January 19</td>
<td>Monday</td>
<td>Classes end.</td>
<td></td>
</tr>
</tbody>
</table>

**SPRING Semester 2015**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 6</td>
<td>Tuesday</td>
<td>6 p.m.</td>
<td>First-half semester MBA classes begin.</td>
</tr>
<tr>
<td>January 13</td>
<td>Tuesday</td>
<td></td>
<td>First-half semester MBA classes: last day to add.</td>
</tr>
<tr>
<td>January 18</td>
<td>Sunday</td>
<td>Noon</td>
<td>Campus Housing opens.</td>
</tr>
<tr>
<td>January 19</td>
<td>Monday</td>
<td>10 a.m. &amp; 5 p.m.</td>
<td>Orientation for new Transfer Students.</td>
</tr>
<tr>
<td>January 19</td>
<td>Monday</td>
<td></td>
<td>Orientation for all International Students</td>
</tr>
<tr>
<td>January 19</td>
<td>Monday</td>
<td></td>
<td>Last day to decrease or cancel meal plans.</td>
</tr>
<tr>
<td>January 20</td>
<td>Tuesday</td>
<td>7 a.m.</td>
<td>SP15 UNDG and remaining GRAD courses begin. (New registrations and schedule changes must be done with add/drop cards).</td>
</tr>
<tr>
<td>January 27</td>
<td>Tuesday</td>
<td></td>
<td>SP15 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>February 4</td>
<td>Wednesday</td>
<td>11 a.m.</td>
<td>Founder's Day Convocation.</td>
</tr>
<tr>
<td>February 4</td>
<td>Wednesday</td>
<td></td>
<td>First-half semester classes: last day to select S/U grading or change from S/U to letter grading (Non-MBA courses).</td>
</tr>
<tr>
<td>February 10</td>
<td>Tuesday</td>
<td></td>
<td>First-half semester MBA courses - last day to drop.</td>
</tr>
<tr>
<td>February 10</td>
<td>Tuesday</td>
<td></td>
<td>Last day to run in grade appeals to Academic Affairs for the FA14 and WN15 semesters.</td>
</tr>
<tr>
<td>February 18</td>
<td>Wednesday</td>
<td></td>
<td>Last day to select S/U grading or to change from S/U to letter grading. First-half semester classes: last day to drop or change to audit (Non-MBA courses).</td>
</tr>
<tr>
<td>February 23</td>
<td>Monday</td>
<td>9 a.m.</td>
<td>Registration packets available ONLINE to all current students for FA15.</td>
</tr>
<tr>
<td>February 23</td>
<td>Monday</td>
<td></td>
<td>Advising begins for full-time students for FA15: required for UNDG students. Recommended for GRAD students.</td>
</tr>
<tr>
<td>February 23</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 25</td>
<td>Wednesday</td>
<td></td>
<td>First-half semester MBA courses end.</td>
</tr>
<tr>
<td>March 3</td>
<td>Tuesday</td>
<td></td>
<td>Second-half semester MBA courses begin.</td>
</tr>
<tr>
<td>March 3</td>
<td>Tuesday</td>
<td>9 a.m.</td>
<td>Registration begins for SU15.</td>
</tr>
<tr>
<td>March 7</td>
<td>Saturday</td>
<td>Noon</td>
<td>Spring Break begins.</td>
</tr>
<tr>
<td>March 7</td>
<td>Saturday</td>
<td>Noon</td>
<td>Campus housing closes.</td>
</tr>
<tr>
<td>March 15</td>
<td>Sunday</td>
<td>Noon</td>
<td>Campus housing opens.</td>
</tr>
<tr>
<td>March 16</td>
<td>Monday</td>
<td>7 a.m.</td>
<td>Classes resume.</td>
</tr>
<tr>
<td>March 17</td>
<td>Tuesday</td>
<td></td>
<td>Registration begins for current students for FA15.</td>
</tr>
<tr>
<td>March 17</td>
<td>Tuesday</td>
<td>9 a.m.</td>
<td>Second-half semester MBA courses: last day to add.</td>
</tr>
<tr>
<td>March 17</td>
<td>Tuesday</td>
<td></td>
<td>Mid-term grades due</td>
</tr>
<tr>
<td>March 25</td>
<td>Wednesday</td>
<td></td>
<td>Deadline for submitting work to instructors for incompletes received the previous fall and winter. Second-half-semester classes: last day to select S/U grading or change from S/U to letter grading.</td>
</tr>
<tr>
<td>March 25</td>
<td>Wednesday</td>
<td></td>
<td>Registration begins for new students for FA15 semester.</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>March 31</td>
<td>Tuesday</td>
<td>Second-half semester MBA courses: last day to drop or change to audit.</td>
<td></td>
</tr>
<tr>
<td>April 1</td>
<td>Wednesday</td>
<td>SPI5: last day to drop or change to audit (Non-MBA courses).</td>
<td></td>
</tr>
<tr>
<td>April 2</td>
<td>Thursday</td>
<td>Classes end for Easter break.</td>
<td></td>
</tr>
<tr>
<td>April 3</td>
<td>Friday</td>
<td>Good Friday: no classes.</td>
<td></td>
</tr>
<tr>
<td>April 6</td>
<td>Monday</td>
<td>Classes resume.</td>
<td></td>
</tr>
<tr>
<td>April 8</td>
<td>Wednesday</td>
<td>Incomplete grades lapse in &quot;F&quot; if no grade submitted from fall and winter.</td>
<td></td>
</tr>
<tr>
<td>April 14</td>
<td>Tuesday</td>
<td>Second-half-semester classes: last day to drop or change to audit.</td>
<td></td>
</tr>
<tr>
<td>April 22</td>
<td>Wednesday</td>
<td>Celebrate Carroll.</td>
<td></td>
</tr>
<tr>
<td>April 29</td>
<td>Wednesday</td>
<td>Last day of classes.</td>
<td></td>
</tr>
<tr>
<td>April 30</td>
<td>Thursday</td>
<td>Reading Day: No daytime classes; final exams for Thursday evening and Tuesday/Thursday evening classes.</td>
<td></td>
</tr>
<tr>
<td>April 30</td>
<td>Thursday</td>
<td>6:00 p.m. Pioneer Honors and Awards Ceremony.</td>
<td></td>
</tr>
<tr>
<td>May 1-6</td>
<td>Fri. - Wed.</td>
<td>Final examinations.</td>
<td></td>
</tr>
<tr>
<td>May 7</td>
<td>Thursday</td>
<td>Noon Campus Housing closes for students not participating in Commencement.</td>
<td></td>
</tr>
<tr>
<td>May 7</td>
<td>Thursday</td>
<td>1:00 p.m. Final grades due (for graduating seniors).</td>
<td></td>
</tr>
<tr>
<td>May 10</td>
<td>Sunday</td>
<td>Baccalaureate and Commencement</td>
<td></td>
</tr>
<tr>
<td>May 11</td>
<td>Monday</td>
<td>Noon Campus housing closes for students not participating in S115 (Summer Session One 2015).</td>
<td></td>
</tr>
<tr>
<td>May 12</td>
<td>Tuesday</td>
<td>9 a.m. Final Grades due.</td>
<td></td>
</tr>
</tbody>
</table>

**SUMMER Sessions 2015**

**Session I (May 6 - June 3)**

| May 6 | Wednesday | MBA courses begin: (Session One)                                     |
| May 7 | Thursday  | Classes begin (New registrations and schedule changes must be done with add/drop cards). |
| May 11| Monday    | Last day to add (Non-MBA courses).                                   |
| May 13| Wednesday| MBA courses Session One: last day to add.                             |
| May 14| Thursday  | Last day to select S/U grading or change from S/U to letter grading.  |
| May 15| Friday    | Last day to drop or change to audit.                                  |
| May 18| Monday    | Physical Therapy summer courses begin.                               |
| May 25| Monday    | Memorial Day - no classes                                           |
| May 29| Friday    | S115 ends (Need to watch individual course dates).                   |
| June 3 | Wednesday | MBA courses Session one: last day to drop or change to audit.         |

**Session II (June 1 - July 29)**

| June 1  | Monday   | Classes begin (New registrations and schedule changes must be done with add/drop cards). |
| June 8  | Monday   | Last day to add (Non-MBA courses).                                         |
| June 15 | Monday   | Last day to select S/U grading or change from S/U to letter grading.       |
| June 22 | Monday   | Last day to drop or change to audit.                                       |
| June 24 | Wednesday| MBA courses end: Session One.                                              |
| June 30 | Tuesday  | MBA courses begin: (Session Two).                                          |
| July 3  | Friday   | 4th of July Holiday - no classes.                                          |
| July 8  | Wednesday| MBA courses Session Two: last day to add.                                 |
| July 13 | Monday   | S215 ends (Need to watch individual course dates).                        |
| July 29 | Wednesday| MBA courses Session Two: last day to drop or change to audit.             |

**Session III (July 14 - August 21)**

| July 14 | Tuesday  | Classes begin (New registrations and schedule changes must be done with add/drop cards). |
| July 21 | Tuesday  | Last day to add (Non-MBA courses).                                         |
| July 28 | Tuesday  | Last day to select S/U grading or change from S/U to letter grading.       |
| August 4| Tuesday  | Last day to drop or change to audit.                                       |
| August 19| Wednesday| MBA courses end: Session Two.                                              |
| August 21| Friday   | S315 ends (Need to watch individual course dates).                        |
| August 21| Friday   | Physical Therapy summer courses end.                                      |
Entry-Level Doctor of Physical Therapy Program

- **PTH400: Foundations of Professional Practice (4 hours)**
  Fundamental concepts related to professionalism and the roles and responsibilities of the physical therapist are introduced. Emphasis is placed on professional practice expectations (communication, diversity, professional behavior, critical inquiry and clinical decision making, education, and professional development) and practice management expectations (prevention/wellness/health promotion, management of health care delivery administration, consultation, and social responsibilities). The health care delivery system including cost, quality, and access and the policies and legislation which drive these forces are introduced. The vital roles physical therapists contribute to the overall health care delivery system are introduced. (Fa)

- **PTH401: Clinical Research I (4 hours)**
  The concepts of critical inquiry and evidenced-based practice in physical therapy are introduced. The components and processes of qualitative and quantitative research in physical therapy are emphasized. Students access and analyze a variety of health care and physical therapy literature. (Sp)

- **PTH404: Biomechanics I (4 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 (4 hours)**
  This course introduces the central nervous system and its connections to mind and behavior. Anatomy and physiology, as well as nervous system development, learning, memory, emotions, sensation and perception, health, neuropsychological diseases and disorders will be emphasized in lecture. Laboratory experiences will apply course content to clinical examination procedures of the motor, sensory, cognitive and behavioral systems. (Sp)

- **PTH406: Exercise Physiology I (4 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.

- **PTH407: Human Learning and Behavior (4 hours)**
  The basic principles of human learning and behavior are explored across gender, culture, and life span. An emphasis is placed on classical and instrumental learning, the concepts of motor learning, and on information processing approaches to learning. The experimental bases for these areas of learning will be stressed throughout. Specific applications of basic research will be made to behavioral medicine, physical therapy, education, behavior modification, and behavior dysfunction. (Fa)

- **PTH414: Biomechanics II (4 hours)**
  This course applies concepts introduced in PTH 404 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, joint goniometry, and manual muscle testing clinical skills are introduced and practiced. The course integrates concepts of postural, balance, and human locomotion, including gait analysis. (Sp)

- **PTH416: Exercise Physiology II (4 hours)**
  This course is the second in a series covering the science and application of exercise physiology principles. The course covers a variety of exercise procedures, techniques, and applications for the design and implementation of exercise programs for enhancing health, fitness, and functional performance. A variety of exercise modalities are addressed with an emphasis on progression through stages of rehabilitation and conditioning. Exercise principles and applications from children to older adults are covered. Research evidence regarding how exercise and physical activity impact health, performance, and disease is a continued emphasis. (Sp) Prerequisite: Entry-Level Physical Therapy Program Standing.

- **PTH500: Applied Physiology II (3 hours)**
  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) Prerequisites: Entry-Level Physical Therapy Program Standing.

- **PTH501: Basic Patient Management Skills (3 hours)**
This course introduces and fosters the development of the knowledge, values, and skills germane to the profession of physical therapy to first year student physical therapists. Standard safety procedures, communication skills, fundamental examination procedures, and treatment interventions focusing on mobility and exercise are introduced and integrated into the patient-client management model. Content and applied through clinical simulations that also incorporate clinical reasoning, patient/family education, and evidence-based practice principles to provide a foundation for best practice. Previous and concurrent course work is integrated and applied to manage patients/clients who present with impairment, functional limitation and disability. (Su) Prerequisite: Entry-Level Physical Therapy Program Standing.

**PTH506: Neurological System Disorders I (3 hours)**
Current and emerging conceptual frameworks and approaches for assessing and retraining movement in individuals with movement disorders are analyzed in the first semester of this two semester course sequence. Normal and abnormal postural control and movement disorders will be analyzed across gender, culture and the life span. Instruments, tests, screens, and evaluations to detect neurological impairments and functional limitations, and therapeutic interventions used in the treatment of patients with neurological impairments are investigated. Students must also apply basic knowledge and patient management skills developed during Phase I of the Entry-Level Graduate Program in Physical Therapy in the screening, evaluation, and treatment of individuals with neurological disorders. Management of specific central and peripheral nervous system pathology, including diagnosis, clinical manifestations, clinical course, and prognosis of neurological disorders will be explored in the second semester (PTH 606). (Sp) Prerequisite: Entry-Level Physical Therapy Program Standing.

**PTH507: Musculoskeletal System Disorders I (3 hours)**
PTH 507 is the first in a two-course sequence that introduces fundamental musculoskeletal pathology, patient examination and treatment concepts and skills. It explores the examination, evaluation, diagnosis, prognosis, interventions, and outcomes 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 lower extremity, lumbar spine and shoulder conditions to prepare students for entry-level practice. Interventions address pathology, impairments, functional limitations and disabilities in an individualized, integrated, conceptual and cost-effective fashion. Clinical reasoning and evidence based practice are emphasized. (Sp) Prerequisite: Entry-Level Physical Therapy Program Standing.

**PTH508: General Medicine I (3 hours)**
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 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) Prerequisite: Entry-Level Physical Therapy Program Standing.

**PTH509: Intro to Pharmacology (3 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) Prerequisite: Entry-Level Physical Therapy Program Standing.

**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.

**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.

- **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)**
PTH 531 expands on the foundation from PTH 521 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 PTH 521 to include both older adults clients and clients with physician diagnosed medical conditions. (Sp) Prerequisites: Entry-level Physical Therapy Program Standing.

- **PTH540: Clinical Decision Making I (3 hours)**
This is the first in a series of four clinical decision making courses that integrates professional practice, patient/client management, and practice management expectations using a case-based format, organized in a manner consistent with the Guide to Physical Therapist Practice, and emphasizing critical inquiry and reflective thinking. Clinical Decision Making I integrates the patient/client management and Biopsychosocial models with prior knowledge and concurrent course content by applying them to patient problems comprised of impairments and functional limitations. (Su) Prerequisites: Entry-level Physical Therapy Program Standing.

- **PTH541: Clinical Decision Making II (2 hours)**
This is the second in a series of four clinical decision making courses that integrates professional practice, patient/client management, and practice management expectations using a case-based format, organized in a manner consistent with the Guide to Physical Therapist Practice, and emphasizes critical inquiry and reflective practice. In Clinical Decision Making II, concepts are advanced using more complex patient cases as a progression from Clinical Decision Making I. Evidence-based practice is emphasized through thorough review and application of published clinical reasoning models. The patient/client model is progressed by incorporating 1) contributions of underlying single-system pathology in patient management, 2) differential diagnosis screening for pathology, 3) diagnostic reasoning through selective tissue tension testing, and 4) types of reasoning consistent with contemporary practice. (Fa) Prerequisites: Entry-level Physical Therapy Program Standing.

- **PTH542: Clinical Decision Making III (3 hours)**
This is the third in a series of four clinical decision making courses that integrates prior knowledge and concurrent coursework in all four tracks of the program into a systematic and patient-centered approach to patient/client management. Clinical Decision Making III emphasizes the systematic process of gathering patient data related to multi-system health conditions, impairments, functional limitations and contributing factors; critically evaluating the data; developing prognosis and diagnoses; making decisions related to effective use and progression of interventions; and analysis of outcomes for patient progression and discharge planning. Investigation of the literature describing expert practice is emphasized. Teaching skills and advanced communication skills are progressed. (Sp) Prerequisites: Entry-level Physical Therapy Program Standing.

- **PTH550: Research and Readings I (1 hours)**
This course is the first in a series of three, one-credit courses that introduce students to evidence based research and practice processes under the guidance and supervision of a faculty member. It provides students with an opportunity to apply theoretical information learned in PTH 401: Clinical Research I to specific research or evidence based practice projects that are continued in subsequent Research & Readings courses. Students work in groups to systematically find, critically analyze, and summarize the current literature on a particular topic. Critical analysis of statistics, research design/methodology, and interpretation are developed. Evidence based practice communication and dissemination skills are
Therapy Program. During the internship, students integrate and apply prior knowledge to actively participate in a full-time internship for twelve weeks at clinical facilities affiliated with the Physical Therapy Program. Students formulate a preliminary draft of their case report design and procure the policies, procedures and related documentation to the greatest extent possible. Prior knowledge related to the use of case reports is advanced by submitting an abstract for presentation at the American Physical Therapy Association Annual Conference. (Su) Prerequisites: Entry-level Physical Therapy Program Standing.

- **PTH551: Research and Readings II (1 hours)**
  This course is the second in a series of three, one-credit courses that introduce students to evidence based research and practice processes under the guidance and supervision of a faculty member. It provides students with an opportunity to integrate and apply information learned in PTH 401: Clinical Research I and PTH 550: Research & Readings I. Students critically analyze and summarize the current literature on a particular topic, then develop and advance specific research or evidence based practice projects that are continued in Research and Readings III. Students disseminate scholarly products by submitting an abstract for presentation at the American Physical Therapy Association Combined Sections Meeting or by sharing of evidence based practice projects with peers and faculty. (Sp) Prerequisites: Entry-level Physical Therapy Program Standing.

- **PTH560: Pathology (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: Entry-level Physical Therapy Program Standing.

- **PTH606: Neurological System Disorders II (3 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 impairments are analyzed. Instruments, tests, screens, and evaluations to detect neurological impairments and functional limitations, and therapeutic interventions used in the treatment of neurological impairments are investigated. Students must also apply basic knowledge and patient management skills developed during Phase 1 and Phase II of the Physical Therapy Program in the screening, evaluation, and treatment of individuals with neurological disorders. (Fa) Prerequisites: Entry-Level Physical Therapy Program Standing.

- **PTH607: Musculoskeletal System Disorders II (3 hours)**
  Building upon PTH507: Musculoskeletal System Disorders I, 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, professional values. (Fa) Prerequisites: Entry-Level Physical Therapy Program Standing.

- **PTH608: General Medicine II (3 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. Common pathologies, evaluation, and treatment of the pediatric client will also be studied. Instruments, tests, screens, and evaluations to detect impairments, functional limitations, disability and disease, 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.

- **PTH610: Clinical Research II (1 hours)**
  This is the second of three clinical research courses designed to advance students toward becoming clinical scholars. In Clinical Research II, principles and techniques are presented that prepare students to design and write an independent case report that is completed in PTH 612: Clinical Research III. Additionally, students formulate a preliminary draft of their case report design and procure the policies, procedures and documents necessary for obtaining institutional approval for their individual case reports and complete related documentation to the greatest extent possible. Prior knowledge related to the use of case reports in physical therapy is advanced through critical analysis and presentation of published case reports. S/U Grading. (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.

- **PTH612: Clinical Research III (2 hours)**
  Using a case report format, students describe evidence-based, autonomous practice for patient management, practice management, or professional practice during Clinical Internship III. The case report is presented in written and oral format to the Physical Therapy program faculty and students. Faculty serve as mentors to guide students by reviewing their case report and oral presentation as appropriate and as evaluators of the written case report and oral presentation. The case report must be appropriate to submit for presentation at a national professional conference or for publication in a peer-reviewed journal. (Sp) Prerequisites: Entry-level Doctor of Physical Therapy Program standing.

- **PTH614: Clinical Internship III (14 hours)**
  Students participate in fourteen weeks of full-time terminal internship at clinical facilities affiliated with the Physical Therapy Program. The fourteen weeks are typically divided into two separate seven-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) Prerequisites: Entry-level Doctor of Physical Therapy Program standing.

- **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 PTH 521 and PTH 531 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. S/U Grading. (Fa) Prerequisites: Entry-Level Physical Therapy Program Standing.

- **PTH640: Clinical Decision Making IV (1 hours)**
  This is the final course in the clinical decision making series that integrates professional practice, patient/client management, and practice management expectations using a case-based format, organized in a manner consistent with the Guide to Physical Therapist Practice, and emphasizes critical inquiry and reflective practice. In Clinical Decision Making IV, students perform a comprehensive review of an authentic clinical case. Patient management, utilization of resources, and coordination of services are critically evaluated. Based upon critical analysis of research evidence, utilization of services, and legal and ethical practice issues, students provide support for the care provided by the treating practitioner and propose a plan of potential options. The review is presented to faculty in written format and defended orally. (Fa) Prerequisites: Entry-level Physical Therapy Program Standing.

- **PTH650: Research and Readings III (1 hours)**
  This course is the third in a series of three, one-credit courses that introduce students to evidence based research and practice processes under the guidance and supervision of a faculty member. It provides students with an opportunity to continue to integrate and apply information learned in PTH 401: Clinical Research I and previous Research & Readings courses to specific research or evidence based practice projects. Students critically analyze and summarize the current literature on a particular topic. Skills of scientific writing and dissemination are emphasized through presentations and submissions to journals or evidence based research databases for publication. (Fa)
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: EDU 601; 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.

- **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.

- **EDU640: Foundations of Gifted and Talented Education (CC1) (3 hours)**
  Characteristics of giftedness are discussed. Several identification methods and programming models are studied, including the Wisconsin Comprehensive Integrated Gifted Programming Model. Students examine six theories of learning as they relate to adult education and begin building the foundation for a psychological understanding 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: 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.

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.

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 (L) (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 (C&I-L) (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.

EDU678: Reading Assessment in the K-12 Classroom (C&I-L) (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 (L) (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 (C&I-C)
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.

• **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.

• **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 a 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

- **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.

- **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.

- **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.

- **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.

- **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.

- **BUS625: Leading and Managing in a Changing Environment (3 hours)**
  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.

- **BUS630: Business and Ethical Decision Making (3 hours)**
  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.

- **BUS635: Operations and Supply Chain Management (3 hours)**
  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. Prerequisite: BUS610.

- **BUS640: Advanced Financial Decision Making (3 hours)**
  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. Prerequisite: BUS620.

- **BUS642: International Business (3 hours)**
  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.

- **BUS645: Business Policy and Strategy (3 hours)**
  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. Prerequisites: BUS 600, BUS 605, BUS 610, BUS 615, BUS 620, BUS 625, CSC 580, BUS 635, BUS 640, and BUS 642.
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.

- **EXP502: 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.

- **EXP503: Advanced Exercise Physiology (4 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.

- **EXP503L: Laboratory Techniques in Adv Exercise Physiology**
  Provides students with hands-on experience with techniques and research applications for measuring, assessing, and evaluating physiological parameters. Co-requisite: EXP 503.

- **EXP504: Advanced Assessment of Physical Performance (3 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.

- **EXP510: Advanced Exercise Testing and Prescription (4 hours)**
  An integrative lecture/lab course designed to provide a comprehensive review 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 prescriptions for apparently healthy adults, as well as clients with special considerations. This course will emphasize a case-study approach. Prerequisite: ESC 320 or equivalent.

- **EXP512: Electrocardiography (2 hours)**
  A concise summary of cardiac electrophysiology. Identification of normal and abnormal resting and exercise electrocardiograms (ECG). Effects of various cardiac medications on resting and exercise ECG will be discussed. Involves lecture and intensive investigation of documented ECG-GXT case studies.

- **EXP515: 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.

- **EXP516: Exercise in the Prevention and Rehab of Chronic Diseases and Disabilities (3 hours)**
  This lecture/lab 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.

- **EXP520: Clinical Practice in Exercise Physiology (2 hours)**
  Knowledge and skills required in the clinical setting including operational standards, practical knowledge to competently supervise diagnostic and prognostic exercise testing, the examination of best practices in exercise interventions, and the legal and social considerations related to practice as a Clinical Exercise Physiologist. This course will also explore potential practice models and technology for business management.

- **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.

- **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 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 200 hours of practicum. Prerequisite: Permission of graduate advisor.

- **EXP581: Internship I (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: Permission of graduate advisor.

- **EXP582: 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 581

- **EXP590: Practicum II (4 hours)**
This clinical practicum expands on the foundation from EXP 580 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 200 hours of practicum. Prerequisite: EXP 580

- **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 and EXP 503

- **EXP592: 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

- **EXP600: 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 582

- **EXP601: Thesis (3 hours)**
In the second academic year students work on a thesis in exercise physiology. The master's thesis should have a scientific composition and be founded on applicable theory and literature within the chosen topic.
Must be taken for a total of 3 hours of credit. Offered credit/no credit only. Prerequisite: HED 606 and permission of the graduate advisor.

- **EXP610: Practicum IV (2 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. Satisfactory completion (“S” grade) of at least 100 hours of practicum. Prerequisite: EXP 600

- **EXP621: Methods in Integrative Lifestyle Management (3 hours)**
  This course examines the evolution and development of "best practices" used by allied health professionals to positively change health behavior in order to prevent or reverse the progress of coronary atherosclerosis and other chronic diseases. Knowledge and skills required for patient education and counseling in the clinical setting will be discussed.

- **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: 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: EXP 591
Master of Graphic Communication

- **GRC610: New Media Studies (3 hours)**
  This course examines the digital media technologies that are at the center of much of our communication, entertainment, and social lives today, exploring both the uses of those technologies and the critical responses to them. Students will look at some early writing that predicts many of the technologies we take for granted today, at some of the early studies of the computer’s impact on individual identity and community, and at a number of issues surrounding the new networked communication structures we use heavily today. Throughout the semester, students will study these technologies from a critical perspective and explore them in a hands-on fashion, working both individually and in groups on a series of projects designed to further understanding of contemporary digital technologies and their role in contemporary culture. (Fall)

- **GRC620: The Rise and Influence of Social Media (3 hours)**
  This course examines how the online community has a direct influence on trends, tastes, health, wealth, happiness, beliefs, and social movements and explains how social networks form and how they operate. Students will examine the short history of social media as well as create a "social cause" movement and assess their ability to create an impact. (Fall)

- **GRC630: New Design Tools 1 (3 hours)**
  This course focuses on the array of a wide variety of digital media content, from textual and image data to audio and video. It is about how the digital media elements are created, presented, translated, compressed, stored and used in combinations to present information to an audience, whether online or in person. The course includes lectures and real-world projects with a variety of professional tool applications for the creation and manipulation of digital media. The course provides a foundation of graphic design and multimedia principles including image creation, storyboarding, 2D and 3D animation, motion graphics, and interactive media. An underpinning of design studies including theoretical, historical, cultural and professional contexts is given throughout the program. (Spring)

- **GRC640: Campaigns (3 hours)**
  This course examines multiple theories, approaches, and design-based understandings of the theoretical constructs and application of designing and implementing the graphic elements for multi-vehicle marketing campaigns. Emphasis will be placed on the multi-vehicle, unified and consistent approach (from print to web to social marketing campaigns). Enduring theories, ongoing issues, emerging trends, and contemporary research will be examined. (Summer)

- **GRC650: Visualization (3 hours)**
  This course will expand your creativity as a creative professional. The major intent of this course is to develop your personal vision as a designer, creative marketing professional and creative director. (Summer)

- **GRC660: Copyright, Licensing, and Ethics (3 hours)**
  The legal issues surrounding the digital world is an ever-changing landscape. This course will focus on ethical and legal aspects that apply to the graphic design industry. Specific topics will include the study of copyright, licensing, trademark, and ethical standards within the design environment. (Fall)

- **GRC670: New Design Tools 2 (3 hours)**
  This course is about focuses on creating the vehicles to which content is communicated, from web design framework to mobile applications. It is about how the digital media elements are presented, translated, compressed, stored and used in combinations to present information to an audience, whether online or in person. The course includes lectures and real-world projects with a variety of professional tool applications for the presentation of digital media. (Spring)

- **GRC675: International Design (3 hours)**
  This course examines the varied global design approaches and perspectives utilized throughout identified watershed moments in history as well as contemporary design approaches used in specific countries in Europe, Southeast Asia, and North America. Emphasis will be placed on the uniqueness of design practices of each country. In addition to in-class study, students will have the opportunity to view these design practices abroad as well as visit with three different design environments. Special arrangements will be made for those who cannot participate in the learning-abroad component. (Spring)

- **GRC690: Capstone 2: The Non-profit Campaign (3 hours)**
  This course will focus on the rebranding of one local non-profit agency. The rebranding process will include new branding identity implementation, social and interactive media production and design, new media applications, and presentation to the operating board of the non-profit agency. This unique semester-long project is completely team based. (Summer)
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 of 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 spring 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 summer 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 spring 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. (May) Prerequisites: Successful completion of all courses in the summer 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. (Wn) Prerequisites: Successful completion of all courses in the fall 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 (2 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.

- **PHAS16: Emergency Medicine (2 hours)**
  This course provides a comprehensive introduction to diagnosis and treatment of common and life-threatening patient presentations in the Emergency Department. (Sp) Prerequisites: Successful completion of all courses in the winter term.

- **PHAS17: 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.

- **PHAS18: 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.

- **PHAS19: 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 lecture/laboratory course. (Fa) Prerequisites: Successful completion of all courses in the summer term.

- **PHAS20: 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.

- **PHAS21: 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.

- **PHAS22: 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.

- **PHAS23: 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 PHAS02. 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

- **PHAS24: 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.
- **PHAS25: 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 healthcare. (Sp) Prerequisites: Successful completion of all courses in the winter term.

- **PHAS620: 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.

- **PHAS621: 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.

- **PHAS622: 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.

- **PHAS623: General Surgery Supervised Clinical Practice (6 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.

- **PHAS624: 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.

- **PHAS625: 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.

- **PHAS626: Psychiatry and/or Behavioral Medicine Supervised Clinical 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.

- **PHAS627: 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.

- **PHAS630: Capstone (2 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 as well as a poster 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. (Fall, even 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. (Spring, odd 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.

- **CSC556: Advanced Web Applications II (3 hours)**
  This course develops the skills necessary for a student to master the world of Javabased 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.

- **CSC580: 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.

- **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.

- **CSC606: 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 to a reshaping of organizations and their activities. Broadband and last mile issues will be studied and forecast as these reshape communication. (Su, WW)

**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 concurrency, 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) 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.

- **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.

- **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.