

DIVISION OF NATURAL AND HEALTH SCIENCES
Department of Health and Human Movement Sciences
PRE-PHYSICAL THERAPY

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The aim of the professional phase of the Doctor of Physical Therapy Program is to produce clinicians, trained for general practice in a dynamic health care environment, who provide best care, respectful of patient/client values, grounded in evidence-based practice and clinical reasoning, and contribute to the profession and their community.

The Entry-level Doctor of Physical Therapy Program is fully accredited by the Higher Learning Commission/North Central Association, and the Commission on Accreditation of Physical Therapy Education.

Curriculum

The Carroll University Entry-level Physical Therapy Program consists of a six-year course of study, divided into pre-professional and professional phases.

During the pre-professional phase (freshman, sophomore and junior years), students complete their undergraduate course work while fulfilling the requirements to enter the professional phase. Pre-physical therapy education at Carroll University is grounded in the humanities and the natural, behavioral and social sciences. For pre-Physical Therapy students pursuing an undergraduate degree at Carroll University, a Bachelor of Science degree in any of the following majors is typically used to complete the Physical Therapy Program in six years: Exercise Science, Biology or Psychology.

The professional phase begins the senior year, lasts eight semesters, and is subdivided into two phases, Phase I and Phase II. During Phase I of the professional phase, fall and spring terms of senior year, course work in physical therapy begins at the 400 level. The 400 level courses present the basic, behavioral, professional, and applied science foundations that are subsequently applied in the 500 and 600 level courses taken during Phase II of the professional program. Bachelor's degrees are awarded at the conclusion of the senior year to those individuals satisfying all Carroll undergraduate requirements.

Immediately following Commencement, students begin the graduate segment of Phase II course work within the professional program. Here the 500 and 600 level courses in

physical therapy are offered in a developmental sequence that integrates knowledge throughout the student's professional education. Upon successful completion of Phase I and II of the professional curriculum, an Entry-level Doctor of Physical Therapy degree is awarded. Graduates participate in the University's Commencement ceremony in May of year six.

Admission

The physical therapy 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 physical therapy practice as provided by law. Students can enter the physical therapy program in one of three ways:

- 1) **Direct admission.** Individuals matriculate directly from high school into one of three undergraduate majors with a pre-physical therapy emphasis. If the student qualifies for admission into the Physical Therapy Program, s/he automatically enters the professional phase during the senior year. Requirements for advancement into the professional program phase for direct admission applicants are described below in the Academic Progression section and in the Admission section of this catalog. Students who choose the direct admission option must meet these requirements to enter the professional phase of the Physical Therapy program.
- 2) **Transfer admission.** During the junior year, individuals can apply to enter the professional phase of the program, and, upon acceptance, would begin Phase I the senior year. Applicants completing a bachelor's degree at Carroll University receive a calculated preference in consideration for Phase I admission. Applicants must be free of academic and disciplinary probation for all institutions previously attended. Selection criteria for transfer applicants are described below and in the Admission section of this catalog.
- 3) **Non-traditional admission.** An individual who has completed an undergraduate degree can apply to phase I of the professional program. Applicants must be free of academic and disciplinary probation for all institutions previously attended. Selection criteria for non-traditional applicants are described under the program's information found in the Carroll University Graduate Catalog.

Applications and credentials for admission to the physical therapy program must be submitted to the Office of Admission. Decisions are made on applications by a selection committee in the program, and applicants are notified through the Office of Admission.

Technical Standards for Admission to and Progression in the Physical Therapy Program

Successful participation in the Entry-level Physical Therapy 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

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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 them throughout participation in the program.

1. **Physical requirements:** The applicant/student must be willing and capable of performing patient examinations including a review of systems, history, and tests and measures including, but not limited to, range of motion, manual muscle testing, visual observations. The applicant/student must also be willing and capable of performing physical therapy interventions such as transferring, treatment techniques using manual skills and therapeutic equipment, activities of daily living, education, and documentation. In addition, an applicant/student must successfully complete and maintain certification in first aid and cardiopulmonary resuscitation.
2. **Communication:** The applicant/student must be able to elicit information, describe changes in health, mood, and activity, and perceive non-verbal communication. The applicant/student must be able to communicate effectively and sensitively with patients and all members of the health care team.
3. **Intellectual abilities:** Problem solving, clinical decision making, and evidence-based practice, critical skills of physical therapists, require abilities in 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 physical therapy program may require 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 physical therapy program.

Caregiver Background and Criminal History Check

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

Insurance

Health: Pre-physical therapy 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 Carroll University Business Office. For students without their own coverage, a group insurance policy is available through the university. Pre-physical therapy students are also required to have a personal health history form completed and on file in the administrative area of the Health Sciences.

Academic Progression

To proceed into the professional phase of the Physical Therapy Program students must satisfy all of the following requirements:

- 1) A university cumulative GPA of 3.0 or higher during the freshman, sophomore, and junior years. Any Carroll undergraduate credit with an earned D or F grade can be retaken at Carroll prior to the direct admit student's senior year with the most recent grade awarded used in the GPA calculations.
- 2) A pre-professional GPA of 3.0 or higher during the freshman, sophomore and junior years. See the Admission section of this Catalog for pre-professional courses. A minimum course grade of "C" is required in all coursework used to calculate pre-professional GPA.
- 3) Completion of courses fulfilling Carroll's general education core, the majority of required and elective courses in the undergraduate major, and pre-professional courses required by the Physical Therapy Program. See the Admission section of this Catalog for specific requirements.
- 4) Bachelor's degree to be awarded at the completion of the senior year, which is the first year of the Physical Therapy Program.
- 5) Graduate Records Examination (GRE) scores.
- 6) Participation in a clinical observation experience, and university or community service activities.
- 7) Submission of three letters of reference, one from a physical therapist, one from a university professor, and one that attests to the student's character.
- 8) Progression standards are subject to change based on regulatory, licensing, and/or certification needs.

The academic progress of the direct admit and transfer students is evaluated by the professional phase admissions committee during the direct admit or transfer student's junior year. Under certain circumstances admission on probation is possible. Any student with direct admission status who withdraws from the program during his/her freshman, sophomore or junior year must inform the program director in writing. Direct admission status will be surrendered at the end of the spring semester junior year if admission requirements are not met for entry into the professional phase. Students may

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apply for entry into the program following additional course work as a transfer student. If, for any reason, a student with direct admission status does not advance into the professional phase of the physical therapy program, career counseling through the Walter Young Center is available.

Academic Progression Standards

The academic progression standards for the professional phase of the physical therapy program are presented in the Health Sciences section of this catalog.

Pre-Physical Therapy Majors (96 credits)

Biology Major (Bachelor of Science)

Exercise Science Major (Bachelor of Science)

Psychology Major (Bachelor of Science)

Optional Minors: Biology, Business, Chemistry, Hispanic Health and Human Service, Psychology, Sociology

Professional Program

Senior year for Direct Admission and Transfer Students (32 credits)

Phase I

Fall Semester 16 credits

PTH 400, Foundations of Professional Practice (4 credits)

PTH 404, Biomechanics I (4 credits)

PTH 405, Neuroscience (4 credits)

PTH 406, Applied Exercise Physiology I (4 credits)

Spring Semester 16 credits

PTH 401, Clinical Research I (4 credits)

PTH 414, Biomechanics II (4 credits)

PTH 416, Applied Exercise Physiology II (4 credits)

PTH 407, Human Learning and Behavior (4 credits)

Summary of Credits

- Pre-Professional Phase 96 credits
- Professional Phase I 32 credits

Pre-Physical Therapy Emphasis with undergraduate major 128 credits

PTH 400. Foundations of Professional Practice 4 credits

Fundamental concepts related to professionalism and the roles and responsibilities of the physical therapist are introduced. Emphasis is placed on professional practice and practice management expectations. The health care delivery system, including cost, quality, and access, and the policies and legislation which drive these forces, is introduced. (*Fa*) Prerequisite: Good standing in the Entry-level Physical Therapy Program.

PTH 401. Clinical Research I

4 credits

The concepts of critical inquiry, reflective thinking, and evidence 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*) Prerequisites: Good standing in the Entry-Level Physical Therapy Program, CSC 107 and MAT 112 or PSY 205.

PTH 404. Biomechanics I

4 credits

Biomechanics I is the first of a two-course sequence investigating the anatomical and mechanical bases of normal human movement. Musculoskeletal structure and function as they relate to the production of normal human movement are explored using a variety of kinematic and kinetic analysis techniques. (*Fa*) Prerequisite: Entry-Level Physical Therapy Program Standing.

PTH 405. Neuroscience

4 credits

The structure, chemistry, and functioning of the brain in relation to learning, memory, emotion, personality, and complex human behaviors, including thought and language, are emphasized. Brain disorders are discussed. Resources used to study the structure, chemistry, and function of the human brain include laboratories and CD ROM programs. (*Fa*) Prerequisite: Entry-Level Physical Therapy Program Standing.

PTH 406. Applied Exercise Physiology I

4 credits

The fundamental principles of exercise physiology are explored. The anatomical, physiological, biochemical, and psychological effects of exercise in healthy untrained and trained individuals are studied. The effects of exercise on the human body are discussed across gender, race, and life span. Exercise performance under different environmental conditions is also presented. Cardiovascular endurance and skeletal muscle force generating assessment and training techniques are performed. Resources used to study the effects of exercise on the human body include exercise physiology laboratories, computer simulations, and observations. (*Fa*) Prerequisite: Entry-Level Physical Therapy Program Standing.

PTH 407. Human Learning and Behavior

4 credits

The basic principles of human learning and behavior are explored across gender, culture, and life span. Attention is focused on Pavlovian and instrumental conditioning and their applications in medicine and education; the concepts of motor learning and their application in skill learning and recovery of function; information-processing approaches to behavior; and behavior dysfunction. Basic research is related to applied efforts in educational technologies and behavior modification. (*Sp*) Prerequisite: Entry-Level Physical Therapy Program Standing.

PTH 414. Biomechanics II

4 credits

Biomechanics II is the second of a two-course sequence investigating the anatomical and mechanical bases of normal human movement. In this course, quantitative analysis is emphasized to integrate and apply previous biomechanical and kinesiological knowledge. Advanced technologies are introduced and applied to examine kinematic and kinetic principles introduced in both Biomechanics I and II. Students apply course

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material to design a research project and proceed through data collection and analysis, culminating with presentation. (*Sp*) Prerequisite: Entry-Level Physical Therapy Program Standing.

PTH 416. Applied Exercise Physiology II

This course is the second in a series of two exercise physiology courses where the investigation of fundamental exercise physiology principles are advanced. This course focuses on the acquisition of more complex exercise physiology concepts and their application as well as integration and critical analysis of fundamental exercise physiology content, acquired previously. The effects of exercise, decreased use, exercise testing and exercise prescription are explored and applied to individuals of varying gender, age and across the life span. The role of exercise in wellness and primary prevention programs is addressed. (*Sp*) Prerequisite: Entry-Level Physical Therapy Program Standing.

See the Carroll University Graduate Catalog for descriptions of Physical Therapy (PTH) courses in Phase II of the Entry-level Physical Therapy Program.