PHYSICAL THERAPY

http://www.pt.med.miami.edu

Dept. Code: PTS

The Department of Physical Therapy is committed to providing quality educational experiences that enable its graduates to effectively carry out the expanding responsibilities of physical therapists as autonomous health care providers practicing in preventive, evaluative, maintenance, acute care, rehabilitation, outpatient settings, and in educational and research environments.

The individual and collective efforts of the members of the Physical Therapy faculty are directed toward attaining specific goals and objectives as expressed in the philosophic statement of the American Physical Therapy Association.

The Mission of the Department of Physical Therapy (revised in December, 2000; re-affirmed in 2012) in accordance with the Mission of the Miller School of Medicine is to provide excellence in physical therapist education, to expand evidence-based practice of physical therapy through research, to provide high quality care to all who need it, and to be a community partner.

Admission Requirements

Doctor of Physical Therapy (entry level DPT)

Applicants should have a baccalaureate degree in a related field and 3.0, or “B” average or better in the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>3</td>
</tr>
<tr>
<td>Composition/ Writing intensive course</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>General Biology</td>
<td>3</td>
</tr>
<tr>
<td>General Chemistry I and II each with Lab</td>
<td>8</td>
</tr>
<tr>
<td>General Physics I and II each with Lab</td>
<td>8</td>
</tr>
<tr>
<td>Human Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>3-6</td>
</tr>
<tr>
<td>Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>Anatomy and Physiology I &amp; II</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit Hours: 34-37

Application Procedure

We are accepting applications through Physical Therapist Centralized Application Service (PTCAS). Please visit www.ptcas.org (http://www.ptcas.org) to apply.

The next application cycle will open on July 1. The application deadline is October 15; we encourage you to apply early. Classes begin in May of each year. Application requirements consist of the following:

1. Submission of all application materials to PTCAS. Completion of prerequisites or plan to complete by time of matriculation, with a minimum GPA of 3.0 on a 4.0 scale.
2. Demonstration of knowledge concerning the physical therapy profession by submitting:
   - A minimum of 100 hours of first-hand observation and/or work experience related to the practice of physical therapy.
   - This experience must be substantiated in writing by a registered/licensed physical therapist. The name and email of the physical therapist(s) is required for verification.
3. Submission of three to four (3-4) letters of recommendation from people who can address both the applicant’s moral character and potential as a physical therapist.
   - At least one letter must be written by a registered/licensed physical therapist, and one or more from faculty.
4. An on-site interview is required and will be offered to those applicants who have met the admission criteria.
5. Graduate Record Exam (GRE). Applicants who took the GRE before July 31, 2011 must score a minimum of 1000 on the verbal and quantitative sections combined. As of August 2011 the GRE exam and its scoring scale have changed significantly. Please visit the ETS website at: www.ets.org/s/gre/pdf/concordance_information.pdf (http://www.ets.org/s/gre/pdf/concordance_information.pdf) for the official ETS Concordance Table. Applicants must score a minimum of 147 on the quantitative section and 149 on the verbal section. A minimum score of 3.0 on the analytical section is also required.
6. International students are to complete the PTCAS application and submit official transcripts to the DPT program instead of PTCAS. Transcripts that are not in English must include an official translation. International applicants must have all transcripts evaluated by the University of Miami’s Office of International Admissions before they can be considered for graduate study. Any transcript not in English must be submitted with an official translation. International applicants must meet ALL the necessary requirements to qualify for a student visa.

For more information contact:

Admissions Office
Department of Physical Therapy
5915 Ponce de Leon Blvd., 5th Floor
Coral Gables, FL 33146
Phone 305-284-4535


Doctor of Philosophy in Physical Therapy (PhD)

Application Requirements

Applicants to the Physical Therapy PhD Studies Program must have a clinical degree in physical therapy from an accredited physical therapy program and be eligible for licensure to practice physical therapy in the United States. Students enrolled in the PhD in Physical Therapy program at the University of Miami work closely with a faculty mentor from their first days in the program. As a first step in the application process, the applicant must identify an area of interest and contact a faculty mentor involved in that area. Students are admitted to the program upon endorsement of a faculty mentor and completion of all admission requirements, with final selection made by the PhD Studies Committee. Stipend and tuition support is potentially available for qualified applicants.

The applicant must meet all the general admissions requirements of the University of Miami Graduate School. Additionally, stipulations include:

• Direct entry into the PhD program is dependent upon having any of the degrees below:
  • An entry-level Master’s Degree in Physical Therapy
  • An advanced Master’s Degree with a Bachelor’s Degree in Physical Therapy
  • A Bachelor’s Degree in Physical Therapy.

• An applicant with a Bachelor’s Degree in Physical Therapy, though able to commence course work in the PhD Program, will be required to complete additional credit hours before final admission to the PhD Program.

• Official Transcripts of all college work.

• Three completed recommendation forms with at least one form completed by a physical therapist.

• A letter indicating career goals and objectives.

• Licensure or eligibility for licensure, as a physical therapist in the State of Florida (must be licensed within 1 year of admission).

• GRE scores current within the past 5 years (see minimum requirements below)

Applicants who took the GRE before July 31, 2011 must score a minimum of 1000 on the verbal and quantitative sections combined. As of August 2011 the GRE exam and its scoring scale have changed significantly. Please visit the ETS website at: www.ets.org/s/gre/pdf/concordance_information.pdf for the official ETS Concordance Table. Graduate Admissions will be using this concordance table when reviewing exam scores. Applicants must score a minimum of 147 on the quantitative section and 149 on the verbal section. A minimum score of 4.0 on the analytical section is also required. International applicants must submit a complete application and have all transcripts evaluated by the University of Miami’s Office of International Admissions before they can be considered for graduate study. Any transcript not in English must be submitted with an official translation.

For more information on the PhD degree contact:
Kathryn E. Roach, PhD, PT, Graduate Program Director
Department of Physical Therapy
5915 Ponce de Leon Blvd., 5th Floor
Coral Gables, FL 33146
phone: 305-284-4535
email: keroach@miami.edu

Degree Programs

Doctor of Physical Therapy (entry level DPT)

The Department offers the clinical Doctor of Physical Therapy (DPT). The DPT program recognizes the importance of in-depth basic and applied science knowledge and the humanities. As such, the curriculum is carefully sequenced to allow students to develop skills in both classroom and clinical settings.

Faculty also understand the importance of presenting problem-solving skills in conjunction with fundamental physical therapy concepts so that students will develop the professional attitudes and insights required for sustained and continued growth throughout their careers.

The entry-level doctoral program (DPT) is offered under the auspices of the Department of Physical Therapy, University of Miami Miller School of Medicine.

Doctor of Philosophy in Physical Therapy (PhD)

The University of Miami Doctor of Philosophy in Physical Therapy program develops physical therapist students for leadership positions in academic and research settings. Along with guiding students in the development of requisite knowledge and skills, the program promotes professional socialization into the role of academic faculty. We believe preparation to teach and undertake research in a physical therapy curriculum at the university level requires excellence in three dimensions:

1. Expertise in a specified content area;
2. Advanced knowledge and skill in research methods, design, and implementation of analysis and communication of results; and
3. Proficiency in instructional design, teaching methods, and evaluation.

The successful integration of these three dimensions, each complex in its own right, provides the means for the student to develop expertise in testing, analyzing, researching, and teaching about disorders that interfere with function. Unifying these three core areas is the process of socialization to the role of a faculty member, including an awareness of academic responsibilities and sensitivity to the needs of the adult learner.

In keeping with this philosophy, students develop breadth of knowledge through completion of coursework from three basic core areas:

• Concentration Core,
• Research Core, and
• Education Core.

They develop depth by completing elective courses with the intent to build expertise in their respective areas of concentration. The successful graduate of this program will have the requisite knowledge and skills to integrate research findings and scientific theory with clinical observations. On this basis, the graduate will be prepared
to perform original research aimed at developing new knowledge to enhance the scientific basis of clinical practice and theoretical principles that will advance the profession of physical therapy. The program offers opportunities for the student to gain skill in communicating theories, concepts and research findings and to experience the roles and responsibilities of an academic faculty member. Students complete a dissertation project in which they develop and conduct a unique and significant research investigation with the guidance of a Physical Therapy faculty member as research advisor.

For more information contact:
Admissions Office
Department of Physical Therapy
5915 Ponce de Leon Blvd., 5th Floor
Coral Gables, FL 33146
Phone 305-284-4535
Email: physicaltherapy@miami.edu
Website: www.pt.med.miami.edu (http://www.pt.med.miami.edu)

Doctoral Programs in Physical Therapy

- D.P.T. Doctor of Physical Therapy (Entry Level) (http://bulletin.miami.edu/graduate-academic-programs/medicine/physical-therapy/doctor-physical-therapy-dpt-entry-level)
- Ph.D. in Physical Therapy (http://bulletin.miami.edu/graduate-academic-programs/medicine/physical-therapy/physical-therapy-phd)

Courses

PTS 604. Rehabilitation Technology For Physical Therapists. 1 Credit Hour.
This course will introduce current advancements in diagnostic and therapeutic equipment used by physical therapists in clinical practice. The emphasis will be on latest rehabilitation technology such as virtual reality, neural stimulation and rehabilitation robotics. Students will observe the equipment being used on patients, get a basic understanding of its operation and have an opportunity for hands-on learning.
Components: LEC.
Grading: CNC.
Typically Offered: Fall.

PTS 605. Physical Therapy Private Practice Management. 1 Credit Hour.
Course focuses on establishing a private physical therapy practice, including initial development through marketing and management. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 606. Issues in Women's Health: Gynecology. 1 Credit Hour.
Introduction to physical therapy practice for evaluation and treatment of pelvic floor dysfunction. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 607. Issues in Women's Health: Obstetrics, Osteoporosis and Breast Health. 1 Credit Hour.
Introduction to physical therapy practice for evaluation and treatment of problems related to pregnancy, osteoporosis, and other disorders specific to women. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 610. Introduction To Pilates - Gateway. 1 Credit Hour.
This course provides in-depth instruction in the use of Pilates Mat to supplement physical therapy practice. This course covers the history of Pilates and Polestar education, biomechanics, and the many uses of Pilates in physical practices, as well as instruction in 18 Pilates mat exercises. Students learn to perform and teach the exercises and 4 unique class sequences.
Components: LEC.
Grading: SUS.
Typically Offered: Offered by Announcement Only.

PTS 611. Advanced Clinical Practice: Topics in Pediatrics. 1 Credit Hour.
The course will focus on advanced topics in pediatric physical therapy. Through lecture, seminar discuss and lab experiences, topics will include: typical and atypical development over the first year, and both motor and sensory integration examination and intervention strategies. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: SUS.
Typically Offered: Fall.

PTS 612. Sports Physical Therapy. 1 Credit Hour.
An overview of the general aspects of sports physical therapy practice will be provided. Topics will include the various settings, evaluations, interventions, and techniques involved in Sports physical therapy practice. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 613. Advanced Clinical Practice: Evaluation And Treatment Of The Foot And Ankle. 1 Credit Hour.
This course will review the anatomy, normal and abnormal kinesiology/biomechanics, pathology, imaging, of the foot and ankle and discuss Physical Therapy evaluation and intervention based on evidence based practice. It will include an introduction to evaluation and negative casting for orthotics and cadaver prosection review.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 614. Certified Strength and Conditioning Specialist Preparation (NSCA). 1 Credit Hour.
Evaluation and exercise planning of athletes to help them achieve their maximum physical performance without incurring injury. Case studies, a problem-solving approach, and integration of previously learned material are emphasized. Classroom instruction, exercise performance, video analysis, and case studies are utilized. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.
PTS 615. Advance Clinical Practice: Taping for the Orthopedic Population. 1 Credit Hour.
This seminar course is designed to introduce the participant to the concepts of taping for various musculoskeletal pathologies commonly seen in the athletic population. Athletic taping and kinesiotaping principles and uses in rehabilitation will be introduced. A lab component will allow participants to practice the various taping techniques demonstrated. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 616. Clinical Research I. 3 Credit Hours.
Principles, concepts, and basic skills required to conduct clinical research in physical therapy. Topics covered include research design, sampling, bias, reliability and validity, questionnaire design, statistical computing, conceptual review of literature and the preparation of a research proposal.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 617. Abdominal Anatomy. 1 Credit Hour.
Course analyzes abdominal anatomy emphasizing structure and function. Cadaver dissection is included. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 619. Pelvic Anatomy. 1 Credit Hour.
Course analyzes the anatomy of the human pelvic area. Cadaver dissection is included. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 620. Spanish For Physical Therapists I. 1 Credit Hour.
This course is designed to familiarize the physical therapy student with Hispanic cultures and assist the physical therapy student with developing basic communication skills with this population. Emphasis will be on using basic Spanish language to teach skills to or interview the Spanish speaking patient in a health care setting. In addition, knowledge of Hispanic cultures will be integrated into the development of verbal and nonverbal communication skills with this population.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 622. Introduction to Functional Capacity Evaluations. 1 Credit Hour.
This course introduces essential components of functional capacity evaluations and establishes entry-level proficiency. The emphasis will be on cardiovascular clearance and testing, material handling testing, positional tolerance testing, spinal inclinometry, and isometric reliability measures as identified through evidence-based practice and current research. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 623. Myofascial Release. 1 Credit Hour.
Introduction to Myofascial Release technique in rehabilitation. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 624. Miofascial Release II.. 1 Credit Hour.
A follow up to the introductory course MFR I. This course focuses on a review of bioenergy followed by practice of release techniques for trunk, extremities and head and neck. Cranial techniques and rebounding are also taught. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 625. Introduction To Dry Needling Theory And Technique. 1 Credit Hour.
Course introduces the participant to the concepts of dry needling, its neuro-functional principles, and its use in a physical therapy setting. Emphasis on comparing and contrasting dry needling to acupuncture, as well as the safety, indications and contraindications of dry needling. A lab component will allow participants to practice various introductory dry needling techniques. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 626. Gateway Pilates II. 1 Credit Hour.
This two-day Pilates course will teach how to provide four new basic Pilates Mat classes. A total of 18 Gateway 2 preparatory exercises and original Pilates Mat exercises will be taught. The instructor will provide ample experiences for real time practice of each of the 4 Pilates Mat sequences, and will provide feedback to each participant pertaining to additional training and practice to become proficient teachers of the Gateway Introductory Mat work.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 628. Evaluation And Treatment Of Spinal Dysfunctions 1. 3 Credit Hours.
This course provides an in-depth exploration of the evaluation and treatment of various dysfunctions of the spine. The lumbar and sacroiliac regions will be explored. Thorough evaluation procedures will be emphasized as they relate to specific diagnosis. Treatment for the respective diagnoses will include therapeutic exercise, soft tissue stretching, and postural re-education.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 630. Foundations of Physical Therapy. 3 Credit Hours.
Historical development, philosophical foundations and contemporary practice of physical therapist as educator, consultant, administrator, and model of healthy behaviors. Health as indicated by global fitness measures will be demonstrated and experienced. Medical terminology mastered. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.
PTS 631. Gross Anatomy for Physical Therapy I. 3 Credit Hours.
Gross anatomy with emphasis on the musculoskeletal systems and a
survey of other systems that are relevant to physical therapy practice.
Cadaver dissection. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 632. Gross Anatomy for Physical Therapy II. 3 Credit Hours.
Gross Anatomy with emphasis on the musculoskeletal systems and a
survey of other systems that are relevant to physical therapy practice.
Cadaver dissection. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 633. Communication in Physical Therapy Practice. 2 Credit Hours.
Course provides an analysis of communication skills in physical therapy
clinical practice. Emphasis is placed on instruction of patients and
their families, supportive staff, and health care team members. In-depth
examination of patient-therapist interactions is included. Prerequisite:
Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 640. Foundations Of Neuroscience. 2 Credit Hours.
The human central nervous system with emphasis on structure-function
relationships, and clinical applications. The brain, spinal cord, cranial
nerves, tracts, and nuclei of major systems. Central nervous systems
lesions and their clinical significance are discussed. Lecture and human
dissection are included. Prerequisite: Open to Physical Therapy majors
only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 641. Neuroscience II. 3 Credit Hours.
The central, peripheral, and autonomic nervous systems and their
physiological responses to environmental stimuli. Normal systems are
contrasted with abnormal systems. The clinical significance of altered
neurophysiological states is discussed. Prerequisite: Open to Physical
Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 642. Electrotherapy. 3 Credit Hours.
This course presents the physiological rationale, indications,
contraindications and the application of electrical modalities, including
electrical stimulation, thermal modalities, sound modalities, compressive
devices, mechanical machinery, and light therapy.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 643. Medical Pathology Seminar I. 1 Credit Hour.
Lectures and seminar discussion of pathological conditions with
particular emphasis on musculoskeletal disorders. Prerequisite: Open to
Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 644. Medical Pathology Seminar II. 1 Credit Hour.
Lectures and seminar discussion of pathological conditions with
particular emphasis on neuromuscular disorders. Prerequisite: Open to
Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 645. Medical Pathology Seminar III. 1 Credit Hour.
Lectures and seminar discussion of pathology conditions with particular
emphasis on integumentary disorders. Prerequisite: Open to Physical
Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 646. Medical Pathology Seminar IV. 1 Credit Hour.
Lectures and seminar discussion of pathological conditions with particular
emphasis on cardiorespiratory disorders. Prerequisite: Open to Physical
Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 650. Pharmacology. 2 Credit Hours.
Basic principles of pharmacology and pharmacotherapeutics.
Contemporary drug therapies and their effects on patients undergoing
rehabilitation are discussed. Prerequisite: Open to Physical Therapy
majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 670. Clinical Skills in Physical Therapy. 3 Credit Hours.
Decision making, documentation and beginning treatment skills in
functional mobility and basic exercise and massage. Indications
and contraindications of massage, basic active, active assisted,
active resisted range of motion and isometric exercises are learned.
Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 671. Therapeutic Physiology. 2 Credit Hours.
Physiological effects of exercise and training for the healthy and
diseased individual. The use of exercise for joint and muscle mobility,
muscle strength, and cardiopulmonary function is included. Prerequisite:
Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 672. Clinical Kinesiology and Biomechanics. 3 Credit Hours.
A study of musculoskeletal structure and function, physiological and
biomechanical factor, and principles underlying the kinematics and
kinetic of normal and abnormal human motion. Prerequisite: Open to
Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.
PTS 674. Clinical Evaluation. 3 Credit Hours.
Basic evaluation skills for patients with various diseases and dysfunctions. Skills include clinical decision making, history taking, postural and functional assessment, surface palpation, manual muscle testing, and goniometric measurement. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 675. Clinical Decision Making I. 3 Credit Hours.
Introduction to physical therapy diagnosis, the disablement model, measurement of function screening, and the Physical Therapy Guide to Practice. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 676. Clinical Decision Making II. 3 Credit Hours.
Focus on specialty areas such as neonatal pulmonary care, balance/vestibular dysfunction, geriatrics, pediatrics, obstetrics, and gynecology. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall, Spring & Summer.

PTS 677. Clinical Decision Making III. 3 Credit Hours.
Topics in contemporary physical therapy clinical practice with an emphasis on specialty areas such as neonatal pulmonary care, balance/vestibular dysfunction, geriatrics, pediatrics, obstetrics, and gynecology. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall, Spring & Summer.

PTS 678. Rehabilitation of the Complex Patient. 3 Credit Hours.
Rehabilitation of the complex patient, including spinal cord injury, traumatic brain injury, multi-system, and multi-organ disease. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 695. Selected Topics in Physical Therapy. 1-3 Credit Hours.
Topics in contemporary physical therapy clinical practice with focus on specialty areas such as neonatal pulmonary care, balance/vestibular dysfunction, geriatrics, pediatrics, obstetrics, and gynecology. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall, Spring & Summer.

PTS 706. Neurological Evaluation. 2 Credit Hours.
Comprehensive evaluation of the patient with neurological dysfunction. Emphasis is placed on decision making, differential diagnosis, selection, and interpretation of examination components. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 708. Human Gait and Locomotion. 2 Credit Hours.
Principles of human gait and locomotion, including normal and pathological gait, analysis of deviations, causes and specific treatments to address movement dysfunctions. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 710. Clinical Internship I. 2 Credit Hours.
First in a series of supervised clinical education experiences emphasizing the mastery of clinical skills and professional behaviors across patient care settings. This is an 8-week clinical internship.
Components: CLN.
Grading: GRD.
Typically Offered: Fall.

PTS 711. Clinical Internship II. 2 Credit Hours.
Second in a series of supervised clinical education experiences emphasizing the mastery of clinical skills and professional behaviors across patient care settings. This is an 8-week clinical internship.
Components: CLN.
Grading: GRD.
Typically Offered: Fall.

PTS 714. Neurorehabilitation. 3 Credit Hours.
Practice patterns and evidence-based practices in the treatment of individuals with neurological involvement are explored. Emphasis is placed upon the integration and application of theoretical constructs, prognostic indicators, examination and evaluation procedures, and therapeutic intervention strategies utilized by physical therapists in neurological rehabilitation.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 715. Rehabilitation of the Complex Patient. 3 Credit Hours.
Rehabilitation of the complex patient, including spinal cord injury, traumatic brain injury, multi-system, and multi-organ disease. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 717. Clinical Research II. 3 Credit Hours.
This course is a continuation of Clinical Research I that provides the student with continued guidance in the completion of the faculty led research project begun as part of Clinical Research I. A series of lectures also provide exposure to additional topics relevant to clinical research in Physical Therapy. Potential lecture topics include data analysis, design, error, philosophy of science, and research reporting. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 718. Physical Therapy Administration. 3 Credit Hours.
Course discusses physical therapy services, departmental policies and procedures, and personnel management. Issues relevant to clinical practice and the physical therapy profession are emphasized. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 720. Biomechanical Basis of Human Movement. 3 Credit Hours.
A study of the basic biomechanical principles underlying the kinetics and kinematics of normal and abnormal human motion as well as the measurement of human movement. Prerequisite: Open to Physical Therapy PhD majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 721. Measurement of Impairment and Function in Human Movement. 3 Credit Hours.
A study of measurement tools utilized in the analysis of normal and abnormal human motion. Prerequisite: Open to Physical Therapy PhD majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.
PTS 722. Pathobiology of Human Function I. 3 Credit Hours.
The pathophysiology of musculo-skeletal processes that impair human function including skeletal muscle; skin, tendons, ligaments, cartilage; bone; and cardiorespiratory. Prerequisite: Open to Physical Therapy PhD majors only.

Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 724. Cardio-Respiratory Physical Therapy. 3 Credit Hours.
The skills necessary for the evaluation and treatment of patients with various cardio-respiratory diseases and dysfunctions. Inpatient and outpatient cardiac and respiratory rehabilitation is included. Research on prevention of cardio-respiratory diseases and dysfunctions as it relates to evaluative, and therapeutic methods is also discussed. Prerequisite: Open to Physical Therapy majors only.

Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 726. Therapeutic Exercise. 3 Credit Hours.
A holistic approach to the evaluation, treatment, and management of patients with various neuromuscular diseases and dysfunctions. Appropriate therapeutic exercises interrelated with modalities and self-help devices as well as individual investigation of respective neuromuscular diseases and dysfunctions are emphasized. Prerequisite: Open to Physical Therapy majors only.

Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 727. Prosthetics and Orthotics. 3 Credit Hours.
A holistic approach to the evaluation and management of patients with amputations and spinal cord injuries. Appropriate therapeutic exercises interrelated with self-help appliances as well as individual investigation of respective amputation and spinal cord problems are emphasized. Prerequisite: Open to Physical Therapy majors only.

Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 728. Musculoskeletal Examination and Treatment I. 3 Credit Hours.
An in-depth examination of differential diagnosis of various extremity dysfunctions with principles of examining soft tissue, bony and post-surgical problems relevant to the shoulder, elbow, wrist/hand, hip, knee, ankle, and foot. Manual therapy/joint mobilizations for each joint will also be introduced. Prerequisite: Open to Physical Therapy majors only.

Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 729. Management of the Spine. 3 Credit Hours.
The evaluation and treatment of various spinal dysfunctions. Review and investigation of the literature relevant to the sacro-iliac, lumbar, thoracic, cervical spines, and the head and neck. Clinical evaluation and treatment procedures is included. Prerequisite: Open to Physical Therapy majors only.

Components: LEC.
Grading: GRD.
Typically Offered: Summer.

PTS 730. Pediatric Physical Therapy. 2 Credit Hours.
An overview of factors and issues related to examination and treatment of children by physical therapists. Prerequisite: Open to Physical Therapy majors only.

Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 731. Geriatric Physical Therapy. 2 Credit Hours.
An overview of factors and issues related to examination and treatment of older individuals by physical therapists. Prerequisite: Open to Physical Therapy majors only.

Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 743. Measuring Health Outcomes. 3 Credit Hours.
An in-depth analysis of the use and construction of health outcome measures. Topics covered include creating and selecting items, scaling responses, scale construction, response bias, reliability, validity, responsiveness and methods of administration.

Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 744. Integrated Sports and Leisure. 3 Credit Hours.
Course promotes the integration of able-bodied students with the physically challenged by working together to learn common recreational activities. Sailing and camping activities are used as an educational tool for able-bodied students to learn the capabilities, physical resources, and assistance required by physically challenged individuals. Prerequisite: Open to Physical Therapy majors only.

Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 745. Integumentary Disorders and Treatment. 2 Credit Hours.
Basic and advanced principles regarding the integumentary system and related disorders, as well as principles of wound healing and wound care therapies. Prerequisite: Open to Physical Therapy majors only.

Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 748. Musculoskeletal Examination and Treatment II. 3 Credit Hours.
Advanced examination, evaluation, functional assessment and treatment of patients in selected specialty areas of musculoskeletal physical therapy, with emphasis on functional outcomes and evidence based treatment throughout the life span. Prerequisite: Open to Physical Therapy majors only.

Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 755. Neuromuscular Basis of Movement. 3 Credit Hours.
Concepts of neuromuscular production and regulation of movement with emphasis on neurophysiologic substrates and mechanisms underlying motor behavior. PREREQUISITE: For Physical Therapy PhD students only.

Components: LEC.
Grading: GRD.
Typically Offered: Spring.
PTS 760. Theories of Movement Science. 3 Credit Hours.
An in-depth review of classical theories and recent research in the
movement sciences, to include the study and analysis of system theory
and neurobiological substrates. PREREQUISITE: For Physical Therapy
PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 761. Motor Learning. 3 Credit Hours.
The factors relating to, and affecting, the acquisition and performance
of motor skills. Qualification of skill acquisition and performance are
explored. PREREQUISITE: For Physical Therapy PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 762. Advanced Topics in Neurodevelopment. 3 Credit Hours.
Classical research and systems models of neurodevelopment is reviewed,
analyzed, and related to current research on various areas of human
development throughout the lifespan. PREREQUISITE: For Physical
Therapy PhD students only.
Components: THI.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 764. Seminars in Neuroscience. 3 Credit Hours.
This course explores the role and organization of the key units of the
central and peripheral nervous systems at the molecular and cellular
levels. The integrated functional physiology of systems neuroscience
and behavioral neuroscience will be studied with special emphasis
on neural contributions to involuntary and voluntary motor functions,
perception, cognition, and learning. PREREQUISITE: For Physical Therapy
PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 765. Health Promotion and Disease Prevention. 2 Credit Hours.
The role of physical therapists in health promotion and disease
prevention. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 766. Rehabilitation of the Amputee. 3 Credit Hours.
This course examines the scientific evidence related to the evaluation,
treatment and management of clients who require intervention for
diabetic foot and/or dysvascular limb potentially leading to amputation,
amputation surgery, prosthetic appliances, functional assessment and
amputee rehabilitation. Upper limb prosthetic management will also be
examined. PREREQUISITE: For Physical Therapy PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 767. Prosthetic Technology and Amputee Rehabilitation. 3 Credit
Hours.
This course examines the current scientific evidence related to prosthetic
devices with regard to evaluation, fabrication, materials, fitting and
functional outcomes. Emphasis is on state-of-the-art technology and the
future of prosthetic designs. PREREQUISITE: For Physical Therapy PhD
students only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 768. Rehabilitation Engineering and Assistive Technology. 3 Credit
Hours.
This course is designed for graduate students interested in developing
an understanding of complementary roles of clinicians and engineers in
assisting individuals with disabilities in all areas of life. PREREQUISITE:
For Physical Therapy PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 769. Seminars in Orthotics and Prosthetic Rehabilitation. 3 Credit
Hours.
Examination of current scientific evidence and clinical issues related to
upper and lower limb amputees, and prosthetic and orthotic componentry
and related technology. Students will discuss case studies and design
appropriate devices to address the needs of the individuals in the cases.
PREREQUISITE: For Physical Therapy PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 770. Education Principles In Physical Therapy. 1 Credit Hour.
Principles of education, direction and supervision pertaining to physical
therapy patient care management. Prerequisite: Open to Physical
Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 771. Complementary Therapies in Rehabilitation. 2 Credit Hours.
Historical development and evidence-based approach to complementary
therapies in rehabilitation. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 774. Educational Administration in Physical Therapy. 3 Credit
Hours.
Review of history and current issues in educational administration of
physical therapy programs at the entry-level and post-graduate level.
PREREQUISITE: For Physical Therapy PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 775. Clinical Decision Making II. 3 Credit Hours.
Integration of basic science and clinical science in developing a patient
plan of care, with consideration of ethical, psychological, and economic
factors. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 776. Rehabilitation Engineering and Assistive Technology. 3 Credit
Hours.
This course is designed for graduate students interested in developing
an understanding of complementary roles of clinicians and engineers in
assisting individuals with disabilities in all areas of life. PREREQUISITE:
For Physical Therapy PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 777. Clinical Decision Making II. 3 Credit Hours.
Integration of basic science and clinical science in developing a patient
plan of care, with consideration of ethical, psychological, and economic
factors. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.
PTS 777. Instructional Methods in Physical Therapy Education. 3 Credit Hours.
Overview of research in the professional education field, with specific applications to physical therapy academic and clinical education. Emphasis is placed on curriculum development, competency-based instructional design, testing, and instructional evaluation methods. PREREQUISITE: For Physical Therapy PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 778. Teaching Practicum. 1-3 Credit Hours.
Supervised instructional design, teaching and evaluation of entry level physical therapy students. Students participate as course instructors in entry-level master's degree physical therapy curriculum. PREREQUISITE: For Physical Therapy PhD students only.
Components: PRA.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

PTS 784. Human Neuroanatomy. 3 Credit Hours.
Detailed exploration of the human nervous system with an emphasis on structure-function relationship and clinical applications. This course is designed for Physical Therapy graduate students with an interest in a professional career in teaching the anatomical sciences to students of the health professions including medical students. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Offered by Announcement Only.

PTS 785. Medical Diagnostic Tests. 2 Credit Hours.
Basic principles of medical diagnostic tests commonly encountered in physical therapy. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 790. Physical Therapy Diagnosis. 3 Credit Hours.
Study of the integration of didactic knowledge, clinical skills, and intuitive process into the formation of a clinical diagnosis which will direct treatment in physical therapy. Diagnosis as a process is compared to diagnosis in nursing, psychiatry, and medicine, and distinguished from assessment, examination, and screening. PREREQUISITE: For Physical Therapy PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 791. Role Seminar 1: Academic Leadership. 1 Credit Hour.
Introduction to the faculty roles in an institution of higher education, including faculty development and evaluation systems, educational leadership, and student advising.
Components: LEC.
Grading: SUS.
Typically Offered: Offered by Announcement Only.

PTS 792. Role Seminar 2: Research. 1 Credit Hour.
Initiation of a research career and dynamics of research role development within an institution. Focus is on grant writing, funding sources, and proposal development.
Components: LEC.
Grading: SUS.
Typically Offered: Offered by Announcement Only.

PTS 795. Clinical Research Methods I. 3 Credit Hours.
An overview of measurement and sampling issues pertaining to clinical research in Physical Therapy. PREREQUISITE: For Physical Therapy PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 796. Applied Statistics in Physical Therapy. 3 Credit Hours.
Basic Statistics taught from an applied perspective which includes statistical computing using SAS in a mainframe environment and interpretation of SAS output. PREREQUISITE: For Physical Therapy PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

PTS 797. Clinical Research Methods II. 3 Credit Hours.
A course focusing on issues in research design and analysis pertaining to clinical research in Physical Therapy. PREREQUISITE: For Physical Therapy PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Spring.

PTS 798. Research Practicum. 3 Credit Hours.
Practicum designed to familiarize the student with an area of research, to implement a pilot study in an area of interest, and to develop working relationship with a sponsoring faculty member. PREREQUISITE: For Physical Therapy PhD students only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

PTS 799. Independent Study in Physical Therapy. 1-3 Credit Hours.
Each course is designed to meet the needs of graduate students for in-depth study in a particular area of special interest. Prerequisite: Open to Physical Therapy majors only.
Components: LEC.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

PTS 802. Special Internship. 1-3 Credit Hours.
Supervised clinical education emphasizing clinical skills. PREREQUISITE: For Physical Therapy Majors Only.
Components: CLN.
Grading: SUS.
Typically Offered: Offered by Announcement Only.
PTS 803. Clinical Internship III. 2 Credit Hours.
Third in a series of supervised clinical education experiences emphasizing the mastery of clinical skills and professional behaviors across patient care settings. This is an 8-week clinical internship.
Components: CLN.
Grading: SUS.
Typically Offered: Spring.

PTS 804. Clinical Internship IV. 2 Credit Hours.
Fourth in a series of supervised clinical education experiences emphasizing the mastery of clinical skills and professional behaviors across patient care settings. This is an 8-week clinical internship.
Components: CLN.
Grading: SUS.
Typically Offered: Spring.

PTS 820. Research in Residence. 1 Credit Hour.
Used to establish research in residence for the thesis for the Master’s Degree after the student has enrolled for the permissible cumulative total in PTS 710. Credit not granted. May be regarded as full time residency.
Components: LEC.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

PTS 830. Pre-candidacy Dissertation. 1-6 Credit Hours.
To be used for pre-candidacy PhD dissertation research. PREREQUISITE: For Physical Therapy PhD students only.
Components: THI.
Grading: SUS.
Typically Offered: Fall, Spring, & Summer.

PTS 840. Post-candidacy Dissertation. 1-12 Credit Hours.
The student will enroll for credits as determined by his/her advisor, but not for less than a total of 12. No more than six hours may be taken in a regular semester, nor more than three in a summer session. When a student has passed his/her qualifying exams and is engaged in an assistantship, he/she may still take the maximum allowable credit stated above. PREREQUISITE: For Physical Therapy PhD students only.
Components: THI.
Grading: SUS.
Typically Offered: Fall, Spring, & Summer.

PTS 843. Measuring Health Outcomes. 3 Credit Hours.
An in depth analysis of the use and construction of instruments designed to measure health outcomes. Topics covered include creating and selecting items, scaling responses, scale construction, response bias, reliability, validity, measuring change, and methods of administration.
Components: LEC.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

PTS 850. Research in Residence. 1 Credit Hour.
To establish residence for the PhD, or DPT, after the student has been enrolled for the permissible cumulative total in appropriate doctoral research or clinical practice. Credit not granted, may be regarded as full-time residence as determined by the Dean of the Graduate School.
Components: THI.
Grading: SUS.
Typically Offered: Fall, Spring, & Summer.