Physical Therapy (PHTH)

Courses

PHTH 8502. Human Anatomy I. 3 Credit Hours.
This course represents the first part of a regional study of the gross structure of the human body. It includes classroom lectures and laboratory observations, including dissection of the back, upper and lower limbs, head and neck, thorax, abdomen and pelvis, and perineum. Emphasis is on the structure and function of the skeletal, muscular, cardiovascular, respiratory, and peripheral nervous systems, including their embryologic development. Students must learn the origins, insertions, and both spinal cord level and peripheral innervations, and actions of each muscle. In addition, students must know all bony landmarks and all ligaments that support the joints under study.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits

PHTH 8503. Human Anatomy II. 3 Credit Hours.
This course represents the second part of a regional study of the gross structure of the human body. It includes classroom lectures and laboratory observations, including dissection of the back, upper and lower limbs, head and neck, thorax, abdomen and pelvis, and perineum. Emphasis is on the structure and function of the skeletal, muscular, cardiovascular, respiratory, and peripheral nervous systems, including their embryologic development. Students must learn the origins, insertions, and both spinal cord level and peripheral innervations, and actions of each muscle. In addition, students must know all bony landmarks and all ligaments that support the joints under study.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites: PHTH 8502 May not be taken concurrently.

PHTH 8511. Anatomy Lab. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8512. Human Physiology. 3 Credit Hours.
This course provides D.P.T. students with an opportunity to learn basic facts and principles of physiology. The course focuses on cellular, skeletal, muscular, neurological, cardiovascular, pulmonary, integumentary, renal, endocrine, and metabolic physiology. The discussed clinical topics are relevant to the modern practicing physical therapist.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8513. Movement Science I. 3 Credit Hours.
This course begins with recognition of the external forces and factors that affect movement and then moves on to the interaction between biological structures, the forces they generate and encounter, and how the body assesses and coordinates the variables responsible in the production and control of movement. Tissue mechanics relevant to bone, skeletal muscle, cartilage, tendons, and ligaments provide a basis for understanding the contribution of these tissues to movement, not only at a specific joint in the body, but also across multiple joints in the body. In addition, students are required to recognize the implications of environmental conditions associated with movement, including statics, dynamics, reaction forces, and the effect of cognitive intent by the person performing the movement.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8514. Clinical Decision Making. 2 Credit Hours.
This course presents evidenced-based models and exemplars of clinical decision making, including the World Health Organization's International Classification of Functioning, Disability and Health Model, decision making bias and heuristics, patient management, documentation styles, interdisciplinary care, teamwork, and interview/evaluation algorithms. This course provides the student physical therapist with the tools to utilize a patient-therapist collaborative model to develop a goal-directed, team-centered intervention that encompasses the physical, psychological, social, and psychomotor status of the patient.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8515. Anatomy Lecture. 3 Credit Hours.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Physical Therapy
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
PTH 8516. Introduction to Physical Therapy. 1 Credit Hour.
This course introduces students to the concepts of professionalism, advocacy, and the role of the physical therapist in the American health care system. Students learn about the American Physical Therapy Association, its role in advancing the profession of Physical Therapy, and resources available through the organization. In preparation for clinical practice, students are introduced to various documentation strategies, including electronic health records. Students complete a medical terminology self-study prior to the beginning of the semester to help enhance documentation skills.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTH 8517. Clinical Examination & Intervention Skills I. 3 Credit Hours.
This Clinical Examination and Intervention Skills (CEIS) course provides an introduction to appropriate patient/client and clinician positioning/draping to preserve the modesty of the patient/client as well as the safety of the patient/client and clinician. The practices of appropriate positioning and draping for both the patient/client and clinician are emphasized throughout the course as the students begin to practically experience palpating their classmates and performing techniques such as soft tissue mobilization. Techniques such as manual muscle testing and goniometry are discussed based on the biomechanical concepts involved. Students spend their time in the laboratory practicing these techniques with specific attention paid to anatomy and the reliability and validity of manual muscle testing and range of motion measurements. Additionally, screening techniques (both gross motor and neurological) are addressed with time to practice these techniques assigned to the laboratory component of the class in order to help facilitate the student’s developing decision-making processes.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTH 8518. Psychosocial Aspects. 2 Credit Hours.
This course focuses on thoughtful critical thinking regarding the needs of human beings during illness and disease states and the related specific skills the student will require to successfully interact with and enhance wellness of patients and families in health care settings. To accomplish this, a variety of topics are presented through required readings, lectures, discussions, and experiential activities.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTH 8521. Neuroscience. 3 Credit Hours.
This course offers a study of the anatomy of the human nervous system with special attention to the brain and spinal cord. It includes histology, physiology, and pathology of the nervous system. Examples are given of the cause-effect relationship between lesions and symptoms, albeit complex.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(PHTH 8502|May not be taken concurrently
AND PHTH 8503|May not be taken concurrently
AND PHTH 8512|May not be taken concurrently).

PTH 8522. Rehabilitative Pathophysiology. 3 Credit Hours.
There are three components of this course: basic pathology (injury and adaptation); normal microanatomy of skin, bone, and connective tissue; and pathology of the cardiac, pulmonary, immune, endocrine, musculoskeletal, and integumentary systems.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(PHTH 8502|May not be taken concurrently
AND PHTH 8503|May not be taken concurrently
AND PHTH 8513|May not be taken concurrently).

PTH 8523. Movement Science II. 4 Credit Hours.
Theories and basic principles of motor control, development, and learning are integrated and related to motor behavior across the human lifespan. Examples of both typical and atypical behavior are used to demonstrate the influence of impairments on control, development, and learning. Introductory concepts related to recovery of function following central nervous system damage are included.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(PHTH 8512|May not be taken concurrently
AND PHTH 8513|May not be taken concurrently
AND PHTH 8523|May not be taken concurrently
AND PHTH 8524|May not be taken concurrently
AND PHTH 8536|May not be taken concurrently).
PHTH 8524. Clinical Examination & Intervention Skills II. 2 Credit Hours.
The Clinical Examination and Intervention Skills (CEIS) course sequence contains theory and evidence for and practice of examination and intervention skills that can be applied to a wide variety of clinical settings and patient populations. The CEIS II course content includes examination and intervention skills related to bed mobility, transfers, and ambulation. It also provides a general review of systems assessments, including vital signs, sensory testing, cognitive assessment, and tests of dynamic posture, reflexes, and tone - all within a context of functional intervention, safety, customer service, infection control, and confidentiality. The development and advancement of the patient-therapist therapeutic relationship within the patient-practitioner collaborative model is emphasized in this course.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Repeatability: This course may not be repeated for additional credits

Pre-requisites: (PHTH 8513)(May not be taken concurrently)
AND PHTH 8517)(May not be taken concurrently).

PHTH 8525. Clinical Electroneurophysiology. 3 Credit Hours.
This course includes the known physiologic and physical effects and application of select thermal and electrical therapeutic modalities. A problem-solving approach is used to assist the student to integrate basic physiologic, physical, and medical science aspects for the safe application of the modality. Electrodiagnostic testing in the context of physical therapy practice is presented. Validity, reliability, sensitivity, and specificity of select clinical tests and the effectiveness of each thermal modality/electrotherapeutic device are addressed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Repeatability: This course may not be repeated for additional credits

Pre-requisites: PHTH 8512)(May not be taken concurrently.

PHTH 8527. Clinical Clerkship. 1 Credit Hour.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Repeatability: This course may not be repeated for additional credits.

PHTH 8528. Critical Inquiry I. 3 Credit Hours.
This course provides an introduction to the critical analysis of professional literature in preparation for evidence-based practice. Students learn how to conduct searches of scientific and professional literature related to physical therapy, how to judge the validity of information obtained through both print and electronic media, and how to assess the internal and external validity of research articles as sources of information on which to base clinical decisions. Students also learn how to use web-based technology to prepare reports of research-based literature.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Repeatability: This course may not be repeated for additional credits.

PHTH 8529. Exercise. 3 Credit Hours.
Course content begins with an introduction of peripheral neurophysiology that functions as both a feedback system and instigator of human movement. Studied next is the physiologic response of connective tissue to exercise, including tissue irritability and plasticity, and how each relates to the goals of increased range or mobility through stretching and increased strength or stability from exercise progression. The decision-making rationale of exercise prescription is then discussed within the context of these goals regarding the use of exercise to augment performance in the areas of strength, power, and endurance, plus the progression and monitoring of the physiologic response to exercise for both symptomatic and asymptomatic individuals. Specific attention is paid to the concept of isometric, isotonic, and isokinematic (or any other) forms of exercise, including the incorporation of neural influences through proprioceptive neuromuscular facilitation (PNF).

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Repeatability: This course may not be repeated for additional credits

Pre-requisites: (PHTH 8521)(May not be taken concurrently)
AND PHTH 8523)(May not be taken concurrently)
AND PHTH 8536)(May not be taken concurrently).

PHTH 8532. Clinical Management of Musculoskeletal Conditions I. 4 Credit Hours.
The goal of the three-course musculoskeletal management series is for students to become proficient in the physical therapy management of patients with musculoskeletal disorders. Evidence-based practice serves as a foundation for this course. Students learn a comprehensive examination scheme utilizing the most valid and reliable tests and measures. Using the current best evidence, students learn to develop a plan of skilled interventions for patients with selected musculoskeletal disorders. Psychomotor skills are emphasized and practiced to proficiency during laboratory sessions for selected physical examination tests and manual therapy techniques. This course begins with an overview of the examination and intervention process for patients with musculoskeletal disorders. The focus of the remaining material is on the lower quarter regions of the musculoskeletal system: lumbar spine, pelvis, hip, knee, ankle, and foot.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate

Repeatability: This course may not be repeated for additional credits.
**PHTH 8533. Movement Science III. 2 Credit Hours.**
This course provides D.P.T. students with an opportunity to learn basic facts and principles of physiology. The course focuses on cellular, skeletal, muscular, neurological, cardiovascular, pulmonary, integumentary, renal, endocrine, and metabolic physiology. The discussed topics are relevant to the modern practicing physical therapist.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits.

**PHTH 8534. Clinical Management of Neuromuscular Conditions I. 4 Credit Hours.**
This course introduces evidence-based practice for adults and children with neurologic dysfunction. Using the International Classification of Function (ICF) model and the Hypothesis Oriented Algorithm for Clinicians (HOAC), students focus on evaluation and treatment for impairments of the human movement system and limitations in functional activities. Emphasis is placed on designing effective interventions for individuals with stroke, cerebral palsy (CP), traumatic brain injury (TBI), and spinal cord injury (SCI). Epidemiologic data and clinical medicine topics related to these diagnostic groups are presented. Issues related to the psychometric properties of measures and treatment efficacy and effectiveness are emphasized. The concept of diagnosis of neuromuscular disorders by physical therapists is introduced.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits.

**PHTH 8535. Clinical Management of Cardiopulmonary Conditions. 3 Credit Hours.**
This course includes presentation of advanced pathophysiology, examination techniques, and therapeutic interventions specific to the cardiac, vascular, and pulmonary systems. The course begins with the functional applications and implications of primary and secondary cardiovascular and pulmonary anatomy and dysfunction as it relates to movement dysfunctions. Throughout the course, students gain knowledge of disease pathology and progression, appropriate interventions, tests and procedures, plan of care progressions, and management of the acutely ill patient. The course emphasis is on impairments related to primary or secondary dysfunction of the cardiac and ventilatory pumps. Topics include aging; diabetes; cardiac rehabilitation; pulmonary rehabilitation; the use of supplemental oxygen as a clinical drug; and rehab strategies for management of patients with comorbidities affecting the cardiac, vascular, and pulmonary systems. This course includes wellness and prevention care, cultural issues, epidemiological data, and outcome measures. Issues of validity, reliability, sensitivity, and specificity are addressed with all examination techniques.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits.

**PHTH 8536. Teaching Learning & Group Dynamics. 3 Credit Hours.**
The focus of this course is the development of the teaching, learning, and group dynamics knowledge and skills needed by health care professionals to serve as effective change agents with patients/clients and students, as well as effective collaborators with colleagues across disciplines and health care administrators. In addition, the course provides insight on the skills needed to evaluate the impact of the teaching, learning, and group dynamic initiatives to bring about change through the presentation of a variety of topics, required readings, lectures, seminars, and experiential activities.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits.

**PHTH 8542. Clinical Management of Musculoskeletal Conditions II. 4 Credit Hours.**
The second course in the musculoskeletal management series emphasizes the same concepts as PHTH 8532 with a focus on the upper quarter regions of the musculoskeletal system: cervical and thoracic spine, shoulder girdle, elbow, wrist, and hand.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits.

**PHTH 8546. Bioethics. 2 Credit Hours.**
This 10-week course focuses on the complexity of clinical and research scenarios. It requires health care expertise and an understanding of bioethical principles and values, within the context of a decision-making process. This course allows the student to increase understanding of ethics within the context of ethical dilemmas; understand more about one's own values and preferences when collecting information and making decisions; and value the gifts of collaboration when making bioethical decisions. Students explore scenarios that require ethical decision-making and develop some expertise with using an ethical decision-making matrix and applying the APTA Code of Ethics and Guide for Professional Conduct.
**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate
**Repeatability:** This course may not be repeated for additional credits

**Pre-requisites:**
PHTH 8532|May not be taken concurrently.
PHTH 8547. Management and Health Care Systems. 3 Credit Hours.
This course is an introduction to the American health care system, using a model proposed by Kissick, which identifies four major system components: resources, delivery systems, planning/regulatory infrastructure, and consumers. The course looks at all four of these components with less emphasis on consumers as this area is addressed in the Behavioral Science Series and again in the Management course. This course emphasizes the interconnections between the various segments of the health care system. It also explores and integrates the role of physical therapy as a profession and physical therapists as professionals in the system. Further emphasis is on class participation as a method of modeling professional behavior.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(PHTH 8512|May not be taken concurrently
AND PHTH 8522|May not be taken concurrently
AND PHTH 8529|May not be taken concurrently).

PHTH 8548. Critical Inquiry II. 1 to 2 Credit Hour.
This course continues the fall semester Critical Inquiry I course by providing practice of skills needed to locate, understand, and critique research literature for clinical decision-making. Emphasis is on methods used to find relevant literature and assess the validity of research articles, systematic reviews, and meta-analyses. As a result of the activities in this course, students are able to conduct and document a focused search of the literature, effectively examining and interpreting the validity of research reported in the literature to enable appropriate judgments about the application of research evidence to clinical questions. Students are also able to document the analysis of research studies' validity.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PHTH 8528|May not be taken concurrently.

PHTH 8550. Special Topics in Physical Therapy. 4 Credit Hours.
Offered as a 10-week, 4-credit course during the Fall Semester of the third year of the DPT curriculum. The course is designed to introduce third-year student physical therapists to leading edge and niche areas of practice commonly encountered by the contemporary practicing physical therapist. The course utilizes a "two-pronged" approach, with faculty providing current, high-quality literature on which to base clinical decisions and treatment while clinical guest lecturers provide information regarding the "PT application" in the clinic.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 8551. Medical Diagnostics. 2 Credit Hours.
Students gain an appreciation for and begin to develop strategies to integrate data from medical diagnostic procedures. These data include results obtained from imaging and laboratory chemistry tests, as well as data derived from vascular, neurologic, cardiac, and pulmonary testing. The focus is on utilizing clinical data that documents both the status and the progression of disease and its impact on differential diagnosis, prognostication, and physical therapy interventions.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8552. Clinical Management of Musculoskeletal Conditions III. 3 Credit Hours.
The third musculoskeletal management course emphasizes advanced clinical decision making and integration of material from across the curriculum, body systems, and lifespan. Selected areas of the upper and lower quarter regions of the musculoskeletal systems are reviewed and updated. Special topics such as management of chronic pain, work-related musculoskeletal disorders, injury prevention, complex regional pain syndrome, and temporomandibular joint disorders are also covered.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(PHTH 8525|May not be taken concurrently
AND PHTH 8534|May not be taken concurrently
AND PHTH 8535|May not be taken concurrently
AND PHTH 8542|May not be taken concurrently).
PHTH 8553. Clinical Medicine & Pharmacotherapeutics. 3 Credit Hours.
During the first half of the class, students gain an appreciation for the natural history, medical and/or surgical management of diabetes mellitus, HIV/AIDS, rheumatologic disorders, oncology, organ transplantation, and infectious diseases from the perspective of various health care practitioners, including nurses, physicians, and physical therapists. Students also gain an appreciation for the impact of these disorders on functional abilities and the role of the physical therapist in the coordination and management of care for individuals with these diseases. During the second half of the class, students are introduced to pharmacology as it relates to the practice of physical therapy. Discussions include pharmacokinetics and the indications and contraindications of various drugs relative to their effect on diagnosis, prognosis, and interventions in physical therapy. Specific pharmacologic categories covered in the course are cardiovascular medications, chemotherapeutic agents, NSAIDS, antirheumatic agents, pulmonary medications, pain management strategies, neuromuscular medications, ionto/phonophoresis agents, different classifications of steroids, and diabetes management agents.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(PTH 8529)(May not be taken concurrently
AND PTH 8535)(May not be taken concurrently).

PHTH 8554. Clinical Management of Neuromuscular Conditions II. 3 Credit Hours.
The course covers evidence-based practice for children and adults with disorders of the neuromuscular system with an emphasis on progressive disorders and selected current topics in managing neuromuscular disorders. Examination, evaluation, diagnosis, prognosis, and treatment of individuals with these disorders are addressed. The course includes epidemiologic data and medical management of progressive disorders, lifespan change in neurologic status, outcome measures, prevention of secondary impairments, wellness for individuals with neuromuscular dysfunction, and cultural issues related to the disorders presented. Issues addressed include validity, reliability, sensitivity, and specificity of measures as well as evidence of treatment efficacy and effectiveness.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8555. Assistive Technologies. 2 Credit Hours.
This course presents the theory, evidence for, and process of examination and interventions used in the management of patients with a variety of complex or multiple organ-system pathologies. Emphasis is on the rehabilitation management of patients with transient, prolonged, or residual impairments that affect functional and vocational performance. Students learn about home and workplace assessment, as well as assessment for and prescription of appliances and equipment used to maximize patients’ functional abilities. These include wheelchairs, seating systems, alternative and adaptive equipment, aides, and prosthetic and orthotic devices.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PTH 8542)(May not be taken concurrently.

PHTH 8557. Management of Physical Therapy Practices. 3 Credit Hours.
This course covers a transitional learning experience for the third-year student by allowing the synthesis of clinical knowledge learned during the first two years of the D.P.T. curriculum with an administrative and procedural framework. The student is expected to demonstrate an understanding of how patient care paradigms can meld with the parameters of reimbursement, compliance, management hierarchy, and regulatory issues while allowing for individual and group therapist growth. The capstone project entails the students providing a local physical therapy clinical department with real- patient care paradigms can meld with the parameters of reimbursement, compliance, management hierarchy, and regulatory issues while allowing for individual and group therapist growth. The capstone project entails the students providing a local physical therapy clinical department with real-

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PTH 8534)(May not be taken concurrently.

PHTH 8558. Evidence-Based Practice I. 2 to 4 Credit Hours.
This is the first in a two-course sequence designed to encourage use of the principles of evidence-based practice, integrating clinical expertise, patients’ values, and research evidence to produce a therapeutic alliance. In this course, students generate a systematic review of the literature to answer a specific clinical question. Students can choose either a review of therapeutic interventions or diagnostic tests. The key project for this course is a written systematic review in a standardized format. In addition, during the annual Temple PT Student Presentation Day, students present their research through either a poster or platform presentation format.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(PTH 8502)(May not be taken concurrently
AND PTH 8503)(May not be taken concurrently
AND PTH 8533)(May not be taken concurrently
AND PTH 8542)(May not be taken concurrently).
PHTH 8559. Elective - Clinical Specialty. 3 Credit Hours.
The physical therapy profession is a dynamic profession responding to changes in practice settings, health care policy, societal issues, and knowledge advancements. This course will cover topics that reflect current and anticipated needs in our profession that have emerged in current physical therapy practice. PHTH 8559 is an elective course for third year Doctor of Physical Therapy students and is designed to contain content classified as above the standard of entry-level professional education in physical therapy. Topics offered vary across areas of specialized clinical practice and clinical research activities of departmental faculty members. The content associated with each offered topic fulfills the course metric requirement for a 1.5 credit course and each student must successfully complete two (2) topics over the duration of the semester.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites: (PHTH 8528|May not be taken concurrently
AND PHTH 8548|May not be taken concurrently).

PHTH 8568. Evidence-Based Practice II. 2 Credit Hours.
This is the second in a two-course sequence designed to encourage use of the principles of evidence-based practice, integrating clinical expertise, patient values, and research evidence during clinical practice. This course is offered via a distance learning format utilizing the Blackboard courseware platform. Students complete several written assignments related to the application of evidence-based principles to their clinical practice. The primary project is an individual project in which the students apply the principles of evidence-based practice to a clinical problem encountered during the final clinical internship. The student then presents this process to colleagues in their clinical setting as an in-service.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8571. Phys Therapy Diagnostics. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8572. Clinical Pharmacology. 1.5 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8573. Diagnostic Imaging. 1.5 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8574. Ethics. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8575. Motor Ctrl & Human Mov. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8576. Clinical Decision Making. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8577. Health Care System. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8578. Outcome Meas Epidemiolog. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8579. Teaching and Learning. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.
PHTH 8581. Mslsklt Mgt I Residency. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8582. Mslsklt Mgt II Residency. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9085. Mentorship I Residency. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9086. Mentorship II Residency. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9187. Teaching Practicum. 1 to 3 Credit Hours.
Practicum in teaching physical therapy in professional curricula. Students contract with an advisor for 80 hours of guided development, presentation, and evaluation of a course segment based on principles and concepts. Required for Ph.D. students.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9585. Clinical Internship I. 6 Credit Hours.
Clinical Internship I follows the first year of completed academic coursework. The internship takes place off site and is coordinated by the Director of Clinical Education. This internship focuses on developing the professional clinical skills needed to work with various patient populations. Specifically, this internship gives students the opportunity to interact with patients in order to practice their interview skills, their interpersonal communication, their patient/client education, and their basic examination skills, including range of motion, manual muscle testing, palpation, and data collection.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9586. Clinical Internship II. 12 Credit Hours.
The second full-time clinical internship takes place over the course of twelve weeks. Clinical Internship 2 typically occurs during the summer semester of the student’s second academic year. The internship typically takes place off site and is coordinated, managed, and over-seen by the Director of Clinical Education. This internship focuses on developing and integrating clinical skills and engaging in clinical decision making with various patient populations. Students are evaluated by the Clinical Instructor using the APTA PT CPI Web (2006).
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9620. Human Movement Science I: Neural Factors. 3 Credit Hours.
Current theories and research pertaining to the neural mechanisms of motor control and sensorimotor integration are introduced as a foundation for the evaluation and treatment of movement and balance deficits. Studies involving lesion of the nervous system are discussed to demonstrate the impact of neural impairments on motor performance and motor learning. The course also introduces the neurophysiologic methods to evaluate the relationship between neural circuitry and human movement (e.g., MRI, EEG, single unit recording, PET).
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9621. Human Movement Science III: Cognition and Learning. 3 Credit Hours.
A survey of theory and research concerning the cognitive processes of the human brain and motor behavior is conducted. Emphasis is on the developmental changes that underlie cognition as they relate to motor behavior. These objectives are approached by examining lifespan motor development and learning, attentional mechanisms, perceptual effects on motor output, implicit and procedural memory effects on motor control, automatic compensatory responses and/or strategies following injury or disease, and adaptation to long- and short-term changes in the body or environment.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9622. Instrumentation and Motion Analysis. 3 Credit Hours.
Current methodology appropriate to the study of normal and abnormal human movement is presented. Both technical and theoretical foundations of instrumentation use are included. Students have opportunities to develop skills in data acquisition, reduction, and analyses in the laboratory sessions.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9623. Atypical Human Movement. 3 Credit Hours.
An exploration of the theoretical perspectives used to interpret movement dysfunctions. Topics include overuse, developmental regression, limited repertoires, and external and internal constraints. Required for Ph.D. students.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites: PHTH 9620|May not be taken concurrently.
PHTH 9624. Human Movement Science II: Mechanics and Models. 3 Credit Hours.
Application of the mechanical principles to static and dynamic models of human posture and movement and of the mechanical properties of the link-segment systems and biological tissues are introduced in this course. Dynamical systems framework are introduced as a basis for understanding the organization of complex movement patterns. Other systems, computational, and statistical models that are commonly used to analyze and describe the mechanisms of human posture and movement are discussed. Interpretation of the model predictions is based on healthy individuals in addition to those with movement deficits.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9625. Clinical Decision Making. 3 Credit Hours.
A survey of theory and research concerning the cognitive processes of the human brain and motor behavior is conducted. Emphasis is placed on the developmental changes that underlie cognition as they relate to motor behavior. These objectives are approached by examining lifespan motor development and learning, attentional mechanisms, perceptual effects on motor output, implicit and procedural memory effects on motor control, automatic compensatory responses and/or strategies following injury or disease, and adaptation to long- and short-term changes in the body or environment.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9626. Musculoskeletal Impairment: Evidence for Examination and Intervention Strategies. 3 Credit Hours.
Review of evidence from refereed literature and from expert clinical practice that supports reliability, validity, and utility of examination and intervention techniques used in the physical therapy management of patients with musculoskeletal impairment.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9627. Movement Sci & Cognitive. 3 Credit Hours.
Current theories pertaining to the control of movement and posture are reviewed as a foundation for the evaluation and treatment of movement and balance dysfunction. Required for Ph.D. students.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9645. Advanced Musculoskeletal Anatomy. 3 Credit Hours.
Advanced cadaver dissection and study. Students must have a basic understanding of human anatomy and cadaver dissection. The course integrates clinical and anatomical perspective of the human body. Individual projects are planned by each student.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9651. Theoretical Foundations of Physical Therapy. 3 Credit Hours.
This course examines theories that underlie the discipline of Physical Therapy. Topics include neuronal regeneration, balance control, motor development, cumulative trauma disorders, health services research and expertise in clinical practice. Students examine empirical evidence that supports or refutes each theory. Required for Ph.D. in PT students.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PHTH 9620|May not be taken concurrently.

PHTH 9653. Research Strategies. 3 Credit Hours.
Research in health care practice and education. Includes critical analysis of manuscripts, experimental and nonexperimental research designs, and overview of quantitative and qualitative analyses.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9654. Laboratory Rotations and Seminar in Human Movement Science. 3 Credit Hours.
Full-time work in the laboratory of a faculty member to learn instrumentation and techniques pertinent to the area of research the student wishes to pursue. Two rotations required for Ph.D. in PT students. Health care problems are also presented.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9655. Qualitative Research Strategies for Health Care. 3 Credit Hours.
Qualitative research focusing on grounded theory and case analysis. Combining qualitative and quantitative research strategies to study health care problems is also presented.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
PHTH 9673. Curricular Design and Teaching in the Health Professions. 3 Credit Hours.
Philosophical orientations to and alternative curricular designs for professional health care academic and clinical education. Theories of learning, teaching strategies, and evaluation formats. Required for Ph.D. students.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9682. Independent Study. 1 to 3 Credit Hour.
Individual investigation in physical therapy practice or research under the guidance of a mentor.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9685. Clinical Internship III. 12 Credit Hours.
This course is designed as the third full-time clinical internship for each student. Each student participates in a total of 42 weeks of clinical internship throughout the course of the DPT program; Clinical Internship 3 takes place over the course of 12 weeks. Clinical Internship 3 will typically occur during spring semester of the third academic year. The internship takes place off site and is coordinated by the Director of Clinical Education. This internship will focus on developing the professional clinical skills needed to work with various patient populations. Additionally, the students will have the opportunity to problem solve and utilize their clinical decision making skills in examining, evaluating, assessing and developing plans of care for the patients.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9686. Clinical Internship IV. 12 Credit Hours.
This course is designed as the fourth full-time clinical internship for each student. Each student participates in a total of 42 weeks of clinical internship throughout the course of the DPT program; Clinical Internship 4 takes place over the course of 12 weeks. Clinical Internship 4 will typically occur during spring semester of the third academic year. The internship takes place off site and is coordinated by the Director of Clinical Education. This internship will focus on developing the professional clinical skills needed to work with various patient populations. Additionally, the students will have the opportunity to problem solve and utilize their clinical decision making skills in examining, evaluating, assessing and developing plans of care for the patients.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9687. Clinical Internship V. 9 Credit Hours.
The fifth and final full-time clinical internship takes place over the course of nine weeks. Clinical Internship 5 typically occurs during the Spring semester of the student’s third academic year. The internship takes place off site and is coordinated by the Director of Clinical Education. This internship focuses on developing and integrating clinical skills and engaging in clinical decision making with various patient populations. Students are evaluated by the Clinical Instructor using the APTA PT CPI Web (2006) and are expected to be at entry-level performance upon completion of this course.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9774. Administration of Health Professions Academic Programs. 3 Credit Hours.
Organization of universities with an emphasis on administration of professional graduate programs, program and faculty evaluation and development, funding, admissions, professional accreditation, clinical education, and state licensure. Required for Ph.D. students.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9785. Clinical Internship V. 9 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9787. Teaching Practicum. 1 to 3 Credit Hour.
Practicum in teaching in the professional physical therapy curriculum. Students contract with a faculty member for guided development, presentation and evaluation of a course segment based on principles and concepts covered in PHTH 9673.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9994. Preliminary Examination Preparation. 1 to 6 Credit Hour.
Limited to Ph.D. in PT students who have completed all their coursework and are finishing qualifying examinations.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9998. Dissertation Proposal. 1 to 3 Credit Hour.
Students are expected to prepare and submit a dissertation proposal in the form of a grant proposal and successfully defend it orally before their Dissertation Committee. As appropriate, they must obtain IRB approval for their proposed research, and submit a copy of the grant proposal to the Graduate School. Students are expected to have developed and defended their dissertation grant proposal within one year of successfully completing their preliminary examination.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
PHTH 9999. Dissertation Research and Colloquium. 1 to 4 Credit Hour.
Limited to Ph.D. in PT students who have passed preliminary examinations. Continuous registration in the Fall and Spring semesters is required until the oral defense has been passed. Students are required to attend a colloquium held once a month to review and discuss progress to date.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate

**Student Attribute restrictions:** Must be enrolled in one of the following Student Attributes: Dissertation Writing Student

**Repeatability:** This course may be repeated for additional credit.