

# PHYSICAL THERAPY (PTH)

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## PTH 6110 Clinical & Functional Anatomy (4)

Clinical and Functional Anatomy covers the anatomical components and functional relationships of the musculoskeletal system. Students relate structure to human functional capabilities, consider the constraints that anatomical structure places on function; consider the possible causes of observed anatomical structure; and reason through scenarios of patient/client problems.

## PTH 6111 Clinical Physiology (3)

Clinical Physiology covers the function of the muscular, skeletal systems; and structure / function of the circulatory, pulmonary, endocrine, gastrointestinal, genitourinary, metabolic, and integumentary systems. Students relate anatomical and physiological systems to functional capabilities. Students apply physiology to reasoning about clinical scenarios and apply concepts to patient/client problems with the WHO International Classification of Function for system organization. Corequisite(s): PTH 6110, PTH 6112, PTH 6115, PTH 6116.

## PTH 6112 Ethics and Value Systems (2)

Introduces a systems approach generally, and then its application to ethics and value systems. Compare and contrast ethics and value systems across culture/ethnicity, socioeconomic status, literacy, and psychological factors. Connects ethics and values to professional conduct and legal standards and utilizes case studies to connect theoretical understanding of ethics and values systems to real world practice situations. Corequisite(s): PTH 6110, PTH 6111, PTH 6115, PTH 6116.

## PTH 6115 Patient/Client Management I (2)

The first course that directly teaches students the practice of physical therapy and provides a scaffolding which will be built upon throughout the program. Introduces the principles of patient management (screening, examination, evaluation, diagnosis, prognosis, and plan of care) utilizing cases to integrate theory and practice. Strongly connected to the co-requisite Integrated Clinical I. Corequisite(s): PTH 6110, PTH 6111, PTH 6112, PTH 6116.

## PTH 6116 Integrated Clinical I (1)

Integrated Clinical I prepares students for and provides opportunities to observe and participate in and reflect on physical therapy practice utilizing case studies, simulated patients, simulations and campus clinics. The series reinforces a collaborative, patient-centered approach, with personal and environmental factors factored into clinical reasoning. This course emphasizes safety, ethical behavior, accountability, communication, cultural competence, professional development and clinical reasoning. Corequisite(s): PTH 6110, PTH 6111, PTH 6112, PTH 6115. Pass/No Pass.

## PTH 6120 Neuroscience (4)

Covers structure and function of the nervous system. Relates anatomy and physiology to functional capabilities related to movement and cognition; consider the impact of lesions, and the causes of observed signs and symptoms during development, adaptations and trauma through the life span. Students apply neuroscience to reasoning about clinical scenarios and to the analysis of patient/client problems. Prerequisite(s): PTH 6110, PTH 6111, PTH 6115, PTH 6112, PTH 6116. Corequisite(s): PTH 6122, PTH 6124, PTH 6121, PTH 6125, PTH 6126.

## PTH 6121 Musculoskeletal Conditions & Management (3)

Musculoskeletal conditions and management covers common muscular, skeletal and connective tissue pathology, medical and surgical management across the lifespan with implications for physical therapy intervention. Students learn the basics of radiographic, MRI and ultrasound imaging technologies and develop an understanding of the use of such technologies in the diagnosis and management of patients with musculoskeletal conditions. Prerequisite(s): PTH 6110, PTH 6111, PTH 6115, PTH 6112, PTH 6116. Corequisite(s): PTH 6120, PTH 6122, PTH 6124, PTH 6125, PTH 6126.

## PTH 6122 Dynamic Systems I: Movement & Adaptation (3)

Dynamic Systems I covers movement and adaptation and introduces a system understanding of adaptation and defines movement as a complex system. Movement emerges from physics and biology to develop the clinically useful concept of neuromechanics and motor control which establish movement as dynamic, complex and adaptive. Prerequisite(s): PTH 6110, PTH 6111, PTH 6112, PTH 6115, PTH 6116. Corequisite(s): PTH 6120, PTH 6124, PTH 6125, PTH 6126.

## PTH 6124 Clinical Inquiry I: Causality and Inference (3)

Clinical Inquiry I introduces students to knowledge based practice and the role of research in developing scientific and theoretical foundations for and the critical analysis of physical therapy practice. The class covers the process of knowledge generation, and the use of causal models for knowledge representation. Students learn how to develop, evaluate and reason inferentially with graphical causal models (Bayesian networks), and how to apply these skills to learning, understanding and decision making. Prerequisite(s): PTH 6110, PTH 6111, PTH 6112, PTH 6115, PTH 6116. Corequisite(s): PTH 6120, PTH 6122, PTH 6125, PTH 6126.

## PTH 6125 Patient/Client Management II (4)

Patient / Client Management II includes both classroom and laboratory sessions on screening, examination, evaluation, diagnosis, prognosis, and intervention (plan of care and management of care delivery). The scaffold previously established continues to develop depth by incorporating previous (pre requisite) and concurrent (co-requisite) program content including the integrated clinical. Prerequisite(s): PTH 6110, PTH 6111, PTH 6115, PTH 6112, PTH 6116. Corequisite(s): PTH 6122, PTH 6124, PTH 6121, PTH 6120, PTH 6126.

## PTH 6127 Integrated Clinical II (1)

Integrated Clinical II provides students with opportunities to observe, perform selected skills, and participate in guided reflection of physical therapy practice utilizing case studies, simulated patients, simulations and campus clinics. The series reinforces a collaborative, patient-centered approach, with personal and environmental factors factored into clinical reasoning. This course adds an expectation of beginning performance of patient/client management. Falls. Prerequisite(s): PTH 6110, PTH 6111, PTH 6115, PTH 6112, PTH 6116. Corequisite(s): PTH 6120, PTH 6122, PTH 6124, PTH 6121, PTH 6125.

## PTH 6130 Pathophysiology & Pharmacology I (3)

Pathophysiology & Pharmacology I covers the foundational concepts of pathophysiology and pharmacology including injury, inflammation and healing and pharmacodynamics. It then covers the pathophysiology, pharmacological, medical and surgical management of selected genetic, nutritional, neoplastic, infectious, immunological, and inflammatory conditions that influence the neuromuscular systems across the lifespan with consideration of implications for physical therapy intervention. Prerequisite(s): PTH 6121, PTH 6120, PTH 6122, PTH 6124, PTH 6126. Corequisite(s): PTH 6133, PTH 6132, PTH 6131, PTH 6135, PTH 6136.

**PTH 6131 Exercise Prescription & Nutrition (3)**

Covers the concepts of exercise prescription and nutrition as applied to healthy individuals and those with stable and controlled chronic conditions. Prescription of exercise and nutritional considerations when stable and controlled chronic conditions are either not limiting or considered not amendable to rehabilitation.

Prerequisite(s): PTH 6111, PTH 6110, PTH 6120, PTH 6122, PTH 6124, PTH 6125, PTH 6126.

Corequisite(s): PTH 6130, PTH 6133, PTH 6132, PTH 6135, PTH 6136.

**PTH 6132 Movement Systems (4)**

Movement Systems builds upon Dynamic Systems I by using the concept of movement as a complex adaptive system in the evaluation of functional and dysfunctional movement patterns, identifying causes of dysfunctional patterns, analyzing and implementing a movement program to maximize function and efficiency, and minimize risk.

Prerequisite(s): PTH 6111, PTH 6110, PTH 6120, PTH 6122, PTH 6124, PTH 6125, PTH 6126.

Corequisite(s): PTH 6130, PTH 6133, PTH 6135, PTH 6136.

**PTH 6133 Dynamic Systems II: Movement & Adaptation (3)**

Dynamic Systems II builds upon movement as a complex adaptive system to include environmental interactions. Human movement occurs within particular environmental contexts and these contexts greatly influence the demands, capabilities and adaptations of movement. The course considers the human - environment interactions and factors that either enable or disable movement, including movement trajectories over time and through the life span.

Prerequisite(s): PTH 6122.

Corequisite(s): PTH 6130, PTH 6131, PTH 6132, PTH 6135, PTH 6136.

**PTH 6135 Patient/Client Management III (4)**

Patient / Client Management III is a problem based course with tutorial and laboratory sessions and continues to develop depth and problem solving. This course specifically adds evaluation and interventions for musculoskeletal specific pathologies, neuroscience to previously established A&P causal reasoning, and the hierarchy of adaptation to consideration of intervention effects.

Prerequisite(s): PTH 6125 and PTH 6127.

Corequisite(s): PTH 6130, PTH 6131, PTH 6132, PTH 6133, PTH 6137.

**PTH 6137 Integrated Clinical III (1)**

Integrated Clinical III provides students with opportunities to observe, perform selected skills, and participate in guided reflection of physical therapy practice utilizing case studies, simulated patients, simulations and campus clinics. The series reinforces a collaborative, patient-centered approach, with personal and environmental factors factored into clinical reasoning. This course expects advanced beginner performance of selected elements of patient/client management. Springs.

Prerequisite(s): PTH 6120, PTH 6122, PTH 6124, PTH 6121, PTH 6125, PTH 6127.

Corequisite(s): PTH 6130, PTH 6131, PTH 6132, PTH 6133, PTH 6135.

**PTH 8210 Pathophysiology & Pharmacology II (3)**

Pathophysiology & Pharmacology II covers the pathophysiology, pharmacological, medical and surgical management of selected genetic, nutritional, neoplastic, infectious, immunological, and inflammatory conditions that influence the circulatory, pulmonary, endocrine, gastrointestinal, genitourinary, metabolic, and integumentary systems across the lifespan with consideration of implications for physical therapy intervention.

Prerequisite(s): PTH 6130, PTH 6133, PTH 6132, PTH 6131, PTH 6135, PTH 6137.

Corequisite(s): PTH 8215, PTH 8217.

**PTH 8215 Patient/Client Management IV (5)**

Patient / Client Management IV is a problem based course with tutorial and laboratory sessions and continues to develop depth and problem solving. This course specifically adds evaluation and interventions for neurological specific pathologies, movement system, exercise, nutrition and the highest level of the hierarchy of adaptation to consideration of intervention effects.

Prerequisite(s): PTH 6130, PTH 6133, PTH 6132, PTH 6131, PTH 6135, PTH 6137.

Corequisite(s): PTH 8210, PTH 8217.

**PTH 8217 Integrated Clinical IV (2)**

Integrated Clinical IV provides students with opportunities to perform selected skills, and participate in guided reflection of physical therapy practice utilizing cases, simulated patients, simulations and campus clinics. The series reinforces a collaborative, patient-centered approach, with personal and environmental factors factored into clinical reasoning. This course increases expectations in patient/client management.

Summers.

Prerequisite(s): PTH 6130, PTH 6133, PTH 6132, PTH 6131, PTH 6135, PTH 6137.

Corequisite(s): PTH 8210, PTH 8215.

**PTH 8224 Clinical Inquiry II: Study Design (3)**

Clinical Inquiry II students learn how to access and critically analyze case studies, observational and experimental design trials. Students generate several clinically relevant questions, identify and access case studies, observational and experimental design trials and critically analyze each trial. Students then engage in peer review of each other's critical analysis. Springs.

Prerequisite(s): PTH 6124.

Corequisite(s): PTH 8232, PTH 8235, PTH 8237.

**PTH 8226 Clinical Education I (8)**

Clinical Education I is a ten week full time supervised clinical experience that provides students with the opportunity to develop patient / client management skills and proficiency in the essential knowledge, skills and attributes of a physical therapist in the clinical setting. Students are directly supervised by qualified physical therapists throughout their clinical experiences.

Prerequisite(s): PTH 8217, PTH 8215, PTH 8210.

Corequisite(s): PTH 8227. Pass/No Pass.

**PTH 8227 Clinical Reflection I (1)**

Students reflect on and document their practice experiences that connect evidence, knowledge and practice decisions, clinical reasoning, ethics, values and communication which will ultimately culminate in a professional practice portfolio.

Prerequisite(s): PTH 8217.

Corequisite(s): PTH 8226. Pass/No Pass.

**PTH 8232 Psychosocial Systems (3)**

Considers adaptation from a psychosocial perspective with consideration of interactions between movement and psychological status and social systems. Covers the processes that accompany pain, suffering, disease, disability, and loss of body function. Considers social systems from a biocultural perspective and their influence over human adaptation as well as the adaptation of the social systems through various levels of group dynamics.

Prerequisite(s): PTH 8226 and PTH 8227.

Corequisite(s): PTH 8224, PTH 8235, PTH 8237.

**PTH 8234 Clinical Inquiry III: Models, Reviews & Guidelines (3)**

Clinical Inquiry III students learn how to access and critically analyze systematic reviews, meta-analyses and clinical practice guidelines. They engage with a series of clinical questions where they apply current knowledge; theory; and professional judgment while considering the patient/client perspective; the environment; and available resources. Students develop their ability to identify; evaluate and integrate the best evidence for practice with clinical judgment and patient/client values; needs; and preferences to determine the best care for a patient/client. Prerequisite(s): PTH 8224. Corequisite(s): PTH 8322 and PTH 8324.

**PTH 8235 Patient/Client Management V (6)**

Patient / Client Management V is a problem based course with tutorial and laboratory sessions and continues to develop depth and problem solving. This course specifically adds evaluation and interventions for body system specific pathologies, screening for medical referral and ICU / complex medical issues and complications. Springs. Prerequisite(s): PTH 8226 and PTH 8227. Corequisite(s): PTH 8224, PTH 8232, PTH 8237.

**PTH 8237 Integrated Clinical V (2)**

Integrated Clinical V provides students with opportunities to perform supervised practice, and participate in guided reflection of physical therapy utilizing cases, simulated patients, simulations and campus clinics. The series reinforces a collaborative, patient-centered approach, with personal and environmental factors factored into clinical reasoning. This course increases expectations in patient/client management. Falls. Prerequisite(s): PTH 8226, PTH 8227, PTH 8215, PTH 8217. Corequisite(s): PTH 8224, PTH 8232, PTH 8235.

**PTH 8316 Clinical Education II (8)**

Clinical Education II is a ten week full time supervised clinical experience that provides students with the opportunity to continue to develop autonomous professional practice with patient / client management skills in the clinical setting. Students are prepared for all practice settings in which physical therapy is practiced. Students are directly supervised by qualified physical therapists. Prerequisite(s): PTH 8226, PTH 8227, PTH 8236, PTH 8235. Corequisite(s): PTH 8317. Pass/No Pass.

**PTH 8317 Clinical Reflection II (1)**

Students reflect on and document their practice experiences that connect evidence, knowledge and practice decisions, clinical reasoning, ethics, values and communication, which will ultimately culminate in a professional practice portfolio. Clinical reflection facilitates inquiry-based learning and promotes the use of scientific literature to champion a more profound and comprehensive integration of clinical experiences and didactic coursework. Prerequisite(s): PTH 8226, PTH 8227, PTH 8237, PTH 8235. Corequisite(s): PTH 8316. Pass/No Pass.

**PTH 8322 Health Systems (6)**

Considers health systems across a complex network including practice management, community and public health. Largely a project based course and the problems that are solved are related to the development and management of physical therapy; including plans for sustainability of their practice model, and advocacy for profession and the healthcare needs of society through legislative and political processes. Prerequisite(s): PTH 8316, PTH 8317. Corequisite(s): PTH 8324, PTH 8326.

**PTH 8324 Capstone I (3)**

Students start developing the professional portfolio started during their Clinical Reflection courses to produce a detailed evidence and knowledge based practice evaluation of their Clinical Reflections. The professional portfolio includes a summary of clinical experiences, a meta-cognitive reflection on their learning and understanding during their clinical experiences with an overview of connections between current practice knowledge and available evidence. Prerequisite(s): PTH 6124, PTH 8224, PTH 8234, PTH 8227, PTH 8317, PTH 8226, PTH 8316. Corequisite(s): PTH 8322, PTH 8326. Pass/No Pass.

**PTH 8327 Integrated Clinical VI (3)**

Students utilize all prior and concurrent coursework (Health Care Systems) to evaluate the clinical services being provided at Plymouth State University. The exact assignments will fluctuate based on the needs of the Integrated Clinical program. Students also perform supervised practice in an educating and supervising capacity for first year DPT students taking Integrated Clinical II. Prerequisite(s): PTH 8316, PTH 8317. Corequisite(s): PTH 8324, PTH 8322.

**PTH 8334 Capstone II (1)**

Students complete their professional portfolio and defend their critical analysis of practice. The professional portfolio includes a summary of clinical experiences, a meta-cognitive reflection on their learning and understanding during their clinical experiences with an overview of connections between current practice knowledge and available evidence. Prerequisite(s): PTH 8316, PTH 8317, PTH 8327. Corequisite(s): PTH 8336, PTH 8337. Pass/No Pass.

**PTH 8336 Clinical Education III (10)**

Clinical Education III is a fourteen-week full-time clinical experience that provides the opportunity to develop independence within the profession. Competence and efficiency of all aspects of patient / client management skills are emphasized in the clinical setting. Execution of consultation, communication, and interdisciplinary collaboration is cultivated to facilitate comprehensive patient care. Students are directly supervised by qualified physical therapists. Prerequisite(s): PTH 8316, PTH 8327, PTH 8317, PTH 8322. Corequisite(s): PTH 8337. Pass/No Pass.

**PTH 8337 Clinical Reflection III (1)**

Students document reflections of their practice experiences that connect evidence, knowledge and practice decisions, clinical reasoning, ethics, values and communication, which will ultimately culminate in a professional practice portfolio. Problem-based learning processes should be emulated in the reflection of clinical experiences. Reflection should exhibit entry-level clinical reasoning and clinical decision making skills, and demonstrate growth toward autonomous practice. Prerequisite(s): PTH 8316, PTH 8317, PTH 8327. Corequisite(s): PTH 8336. Pass/No Pass.