

PHYSICAL THERAPY (DPT)

DPT 601. Gross and Functional Anatomy. 2 Hours.

This is Part I of a two-part course in human gross anatomy and its relationship to impairments of the movement system. Embryology, histology, and gross anatomy of the head, neck, thorax, abdomen, pelvis, and perineum will be covered. Laboratory experiences will be provided using 3-dimensional anatomy software and anatomical models. Gained knowledge will be applied during the functional anatomy component of the course, where students will identify and palpate anatomical structures in a living human body during on-campus lab immersion experiences. Prerequisite: Satisfactory standing in the DPT program.

DPT 602. Ethics. 1 Hour.

This course explores the history of the physical therapy profession, core values, professional behavior, communication with clients and other professionals, and advocacy and leadership roles in the physical therapy profession at regional, state, and national levels. State and federal laws pertaining to the practice of physical therapy will be addressed. Special attention will be given to the Texas Practice Act for physical therapists and to the development of ethical values and establishing ethical competency. Prerequisite: Acceptance into DPT program.

DPT 603. Evidence-Based Practice I. 2 Hours.

This is a foundational course for the evidence-based practice paradigm in physical therapy as well as use of the models of ablement and disability. In addition, common statistical terms and tests along with study reliability and validity and psychometric properties of outcome measures will be covered. Students will learn effective search strategies and application of research study findings to patients under the evidence-based practice paradigm. Emphasis will be on application of evidence in clinical practice. Prerequisites: Acceptance into DPT program. Completion of DPT 601, DPT 602, DPT 604, and DPT 607 with a C or better.

DPT 604. Rural & Underserved Population. 1 Hour.

This course addresses the challenges of rural and under-served populations including healthcare access and healthcare systems in rural areas. The psychosocial aspects of health and disability will be explored. Additionally healthcare policies impacting rural and underserved populations will be analyzed. Special attention will be given to the health disparities common to rural and underserved populations of Texas. Prerequisite: Acceptance into DPT program.

DPT 605. Human and Exercise Physiology. 2 Hours.

This course explores human physiological systems and their response to acute and chronic exercise. Emphasis will be placed on the cardiovascular, neuromuscular, musculoskeletal, and pulmonary systems as well as the concepts of homeostasis, bioenergetics, and metabolism. Students will apply gained knowledge during on-campus lab immersion experiences and in the analysis of disorders of various physiologic systems. Prerequisite: Satisfactory standing in the DPT program.

DPT 606. Gross and Human Anatomy II. 2 Hours.

This is Part II of a two-part course in human gross anatomy and its relationship to impairments of the movement system. Gross anatomy of the upper and lower extremities will be covered. Laboratory experiences will be provided using 3-dimensional anatomy software and anatomical models. Gained knowledge will be applied during the functional anatomy component of the course, where students will identify and palpate anatomical structures in a living human body during on-campus lab immersion experiences. Prerequisite: Satisfactory standing in the DPT program.

DPT 607. Foundational Skills Lecture. 2 Hours.

This course covers basic physical therapy care and procedures, including correct body mechanics, infection control, assessment of vital signs, use of assistive technologies, gait training, transfers, and application of passive and active assistive range of motion procedures. Emphasis will be placed on application of these procedures with patients in acute and intensive care settings. Students will learn to communicate effectively with patients, family members, the health care team, and others while maintaining cultural humility. Gained knowledge will be applied to patient scenarios during on-campus lab immersion experiences. Prerequisite: Satisfactory standing in the DPT program.

DPT 608. Neuroscience Lecture. 2 Hours.

This course explores the anatomy and function of the central, peripheral, and autonomous nervous systems and their relationship to physical therapy practice. Knowledge acquired during the online sessions will be reinforced by laboratory experiences with the use of 3-dimensional software and laboratory immersions where students will learn to assess neurologic functions using tests commonly used in clinical settings. Prerequisite: Satisfactory standing in the DPT program.

DPT 609. Movement Science Lecture. 2 Hours.

This course covers the control and regulation of human movement by the nervous system and how movement is affected by neuropathology. Special attention will be given to common movement disorders (involving the spinal cord, basal ganglia, cerebellum, and motor cortex) often seen by physical therapists. Prerequisite: Satisfactory standing in the DPT program.

DPT 610. Rural Business Models. 1 Hour.

This course prepares students for the business of physical therapy including management and finance. Students will develop skills in leadership, clinic administration, management of human resources, and understanding diagnostic coding and payer relationships. Emphasis will be placed on exploration of successful rural practice models and the application of business principles in rural settings. Students will develop a business plan for a rural physical therapy business/practice. Prerequisite: Satisfactory standing in the DPT program.

DPT 611. Rural Community Health Promotion and Wellness. 1 Hour.

This course explores barriers and opportunities for health promotion and wellness in rural communities at the individual level and within a healthcare setting. Areas of focus include population health, the role of nutrition in chronic health conditions, and teaching and learning strategies for individuals and community groups. Students will develop and implement a program to enhance health behaviors and outcomes in a rural community. Prerequisite: Satisfactory standing in the DPT program.

DPT 612. Interventions of the Movement System Lecture. 2 Hours.

This course covers the foundations and principles of exercise prescription used by physical therapists for healthy and clinical populations. Students will learn to address functional limitations related to range of motion, muscle strength, balance, coordination, and cardiopulmonary endurance. Emphasis will be placed on indications, contraindications, and progression of exercise through the rehabilitation spectrum across the lifespan. Gained knowledge will be applied during on-campus lab immersion experiences. Prerequisite: Satisfactory standing in the DPT program.

DPT 613. Clinical Medicine I. 2 Hours.

This course explores genetics, histology, diagnostic imaging, pharmacology, and pathophysiology of the human body with a focus on the musculoskeletal and nervous systems. Prerequisite: Satisfactory standing in the DPT program.

DPT 614. Clinical Diagnostics Lecture. 2 Hours.

This course develops student competence in patient interviewing, selection of tests and measures used across multiple settings, and documentation. During on-campus lab immersion experiences, students model professional behavior while performing range of motion, strength, and muscle length testing, along with neurologic screening exams, and other outcome measures. Prerequisite: Satisfactory standing in the DPT program.

DPT 615. Evidence-Based Practice II. 2 Hours.

This course builds on the content and knowledge from Evidence-based Practice I. This course develops knowledge of research methods, statistical analysis, and critical review of published literature relative to physical therapist practice. Students will learn to search, appraise, and synthesize findings related to diagnosis, treatment, and management of disorders commonly seen by physical therapists. The use of data informatics in the healthcare environment is introduced. Emphasis will be on application of evidence in clinical practice. Prerequisite: Satisfactory standing in the DPT program.

DPT 616. Cardiopulmonary Lecture. 2 Hours.

Application of previously acquired knowledge of cardiovascular/pulmonary anatomy and physiology. in evaluation and treatment of selected cardiopulmonary medical conditions. Screening examinations for the cardiovascular and pulmonary systems in patients with disorders involving other body systems also will be covered. as will the basics of ECG interpretation. Application of learned skills and knowledge will occur during on-campus immersion lab experiences, allowing students to master the skills for examination and treatment of the client with cardiovascular or pulmonary conditions. Prerequisite: Satisfactory standing in the DPT program.

DPT 641. Gross and Functional Anatomy I Lab. 1 Hour.

This is Part I of a two-part course in human gross anatomy and its relationship to impairments of the movement system. Embryology, histology, and gross anatomy of the head, neck, thorax, abdomen, pelvis, and perineum will be covered. Laboratory experiences will be provided using 3-dimensional anatomy software and anatomical models. Gained knowledge will be applied during the functional anatomy component of the course, where students will identify and palpate anatomical structures in a living human body during on-campus lab immersion experiences. Prerequisite: Acceptance into DPT program.

DPT 645. Human and Exercise Physiology Lab. 1 Hour.

This course explores human physiological systems and their response to acute and chronic exercise. Emphasis will be placed on the cardiovascular, neuromuscular, musculoskeletal, and pulmonary systems as well as the concepts of homeostasis, bioenergetics, and metabolism. Students will apply gained knowledge during on-campus lab immersion experiences and in the analysis of disorders of various physiologic systems. Prerequisite: Satisfactory standing in the DPT program.

DPT 646. Gross and Functional Anatomy II Lab. 1 Hour.

This is Part II of a two-part course in human gross anatomy and its relationship to impairments of the movement system. Gross anatomy of the upper and lower extremities will be covered. Laboratory experiences will be provided using 3-dimensional anatomy software and anatomical models. Gained knowledge will be applied during the functional anatomy component of the course, where students will identify and palpate anatomical structures in a living human body during on-campus lab immersion experiences. Prerequisite: Satisfactory standing in the DPT program.

DPT 647. Foundational Skills Lab. 1 Hour.

This course covers basic physical therapy care and procedures, including correct body mechanics, infection control, assessment of vital signs, use of assistive technologies, gait training, transfers, and application of passive and active assistive range of motion procedures. Emphasis will be placed on application of these procedures with patients in acute and intensive care settings. Students will learn to communicate effectively with patients, family members, the health care team, and others while maintaining cultural humility. Gained knowledge will be applied to patient scenarios during on-campus lab immersion experiences. Prerequisite: Satisfactory standing in the DPT program.

DPT 652. Interventions of the Movement System Lab. 1 Hour.

This course covers the foundations and principles of exercise prescription used by physical therapists for healthy and clinical populations. Students will learn to address functional limitations related to range of motion, muscle strength, balance, coordination, and cardiopulmonary endurance. Emphasis will be placed on indications, contraindications, and progression of exercise through the rehabilitation spectrum across the lifespan. Gained knowledge will be applied during on-campus lab immersion experiences. Prerequisite: Satisfactory standing in the DPT program.

DPT 654. Clinical Diagnostics Lab. 1 Hour.

This course develops student competence in patient interviewing, selection of tests and measures used across multiple settings, and documentation. During on-campus lab immersion experiences, students model professional behavior while performing range of motion, strength, and muscle length testing, along with neurologic screening exams, and other outcome measures. Prerequisite: Satisfactory standing in the DPT program.

DPT 658. Neuroscience LAB. 1 Hour.

This course explores the anatomy and function of the central, peripheral, and autonomous nervous systems and their relationship to physical therapy practice. Knowledge acquired during the online sessions will be reinforced by laboratory experiences with the use of 3-dimensional software and laboratory immersions where students will learn to assess neurologic functions using tests commonly used in clinical settings. Prerequisite: Satisfactory standing in the DPT program.

DPT 659. Movement Science Lab. 1 Hour.

This course covers the control and regulation of human movement by the nervous system and how movement is affected by neuropathology. Special attention will be given to common movement disorders (involving the spinal cord, basal ganglia, cerebellum, and motor cortex) often seen by physical therapists. Prerequisite: Satisfactory standing in the DPT program.

DPT 676. Cardiopulmonary Lab. 1 Hour.

Application of previously acquired knowledge of cardiovascular/pulmonary anatomy and physiology. in evaluation and treatment of selected cardiopulmonary medical conditions. Screening examinations for the cardiovascular and pulmonary systems in patients with disorders involving other body systems also will be covered as well the basics of ECG interpretation. Application of learned skills and knowledge will occur during on-campus immersion lab experiences, allowing students to master the skills for examination and treatment of the client with cardiovascular or pulmonary conditions. Prerequisite: Satisfactory standing in the DPT program.