PTH—PHYSICAL THERAPY

BOUVÉ COLLEGE OF HEALTH SCIENCES

PTH G215 Assistive Technology 3 SH
Studies theory and current practice in the use of prosthetics, orthotics, and assisted-living devices. Coreq. PTH G216. Prereq. PTH U505 or PTH G205.

PTH G216 Lab for PTH G215 1 SH
Accompanies PTH G215. Covers topics from the course through various experiments. Coreq. PTH G215.

PTH G219 Physical Therapy Administration 4 SH
Explores concepts in administration and management applied to physical therapy. Involves seminar and discussion groups. Prereq. BHS U450 or BHS G050.

PTH G221 Neurological Management 4 SH
Focuses on assessing problems of and setting goals for adults with aging-related disorders and/or neurological deficits. Examines the etiology, pathology, clinical signs, and medical management of adults presenting with aging-related disorders and/or neurological disease or trauma. Coreq. PTH G222. Prereq. PTH U517 or PTH G209.

PTH G222 Lab for PTH G221 1 SH
Accompanies PTH G221. Covers topics from the course through various experiments. Coreq. PTH G221.

PTH G223 Musculoskeletal Management 4 SH
Provides an in-depth analysis of musculoskeletal management. Compares intervention protocols as an integral component of this course. Allows, in the lab component, for practical application of spinal joint mobilization, modalities, ergonomic assessment, functional training, and therapeutic exercise. Uses case-based learning to promote synthesis of the material. Coreq. PTH G224. Prereq. PTH U505 or PTH G205.

PTH G224 Lab for PTH G223 1 SH
Accompanies PTH G223. Covers topics from the course through various experiments. Coreq. PTH G223.

PTH G231 Advanced Physical Therapy Topics in Pediatrics 2 SH
Provides students with an opportunity to obtain in-depth knowledge in pediatrics and physical therapy. Course topics vary each semester offered. Topics are determined by significant events and changes in the field. This course may be taken more than once, as long as topics are different. Prereq. PTH G223.

PTH G232 Advanced Physical Therapy Topics in Spine 2 SH
Provides students with an opportunity to obtain in-depth knowledge in spine and physical therapy. Course topics vary each semester offered. Topics are determined by significant events and changes in the field. This course may be taken more than once, as long as topics are different. Prereq. PTH G223.

PTH G233 Advanced Physical Therapy Topics in Orthopedics 2 SH
Provides students with an opportunity to obtain in-depth knowledge in orthopedics and physical therapy. Course topics vary each semester offered. Topics are determined by significant events and changes in the field. This course may be taken more than once, as long as topics are different. Prereq. PTH G223.

PTH G234 Advanced Physical Therapy Topics in Alternative Medicine 2 SH
Provides students with an opportunity to obtain in-depth knowledge in alternative medicine and physical therapy. Course topics vary each semester offered. Topics are determined by significant events and changes in the field. This course may be taken more than once, as long as topics are different. Prereq. PTH U531 or PTH G228.

PTH G235 Advanced Physical Therapy Topics in Geriatrics 2 SH
Provides students with an opportunity to obtain in-depth knowledge in geriatrics and physical therapy. Course topics vary each semester offered. Topics are determined by significant events and changes in the field. This course may be taken more than once, as long as topics are different. Prereq. PTH G221 and PTH G223.

PTH G236 Advanced Physical Therapy Topics in Cardiovascular/Pulmonary 2 SH
Provides students with an opportunity to obtain in-depth knowledge in cardiovascular/pulmonary physical therapy. Course topics vary each semester offered. Topics are determined by significant events and changes in the field. This course may be taken more than once, as long as topics are different. Prereq. PTH U503 or PTH G203.

PTH G237 Advanced Special Topics in Physical Therapy 2 SH
Provides students with an opportunity to obtain in-depth knowledge in a specific physical therapy topic area. Course topics vary each semester offered. Topics are determined by significant events and changes in the field. This course may be taken more than once, as long as topics are different. Prereq. PTH U531 or PTH G228.
Course Descriptions

**NORTHEASTERN UNIVERSITY**

**PTH G240 Differential Diagnosis in Physical Therapy** 3 SH
Teaches physical therapy students how to conduct comprehensive physical therapy evaluations on a variety of patient populations across the life span, in order to determine the need for further medical consultation and/or to develop an accurate physical therapy diagnosis. Emphasizes developing efficiency through skillful sequencing of examination techniques along with providing rationale during the diagnostic process. Prereq. PTH G441.

**PTH G243 Health Assessment and Wellness** 3 SH
Provides an opportunity to promote health and quality of life by providing information on health promotion, wellness, disease, impairment, functional limitations, disability, and health risks. Also provides students with an opportunity to explore their consultative role to business, schools, government agencies, and other organizations. Coreq. PTH G244, Prereq. BHS U450 or BHS G050.

**PTH G244 Recitation for PTH G243** 0 SH
Provides small-group discussion format to cover material in PTH G243. Coreq. PTH G243.

**PTH G251 Diagnostic Imaging** 3 SH
Designed to integrate diagnostic imaging principles and techniques relevant to physical therapy practice. Reviews commonly used diagnostic imaging techniques and discusses clinical case studies in a case-based online course. Prereq. PTH G221 and PTH G223.

**PTH G301 Research Seminar** 1 SH
Offers a review of professional journal articles chosen by students and discussed under the guidance of departmental faculty. Focuses on articles representing various aspects of physical therapy practice. Integrates evidence to support clinical practice. Prereq. PTH G221, PTH G223, and a prior research course.

**PTH G401 Directed Study** 1 SH
**PTH G402 Directed Study** 2 SH
**PTH G403 Directed Study** 3 SH
**PTH G404 Directed Study** 4 SH
Offers independent work under the direction of members of the department on a chosen topic. Course content depends on instructor. Prereq. Permission of instructor.

**PTH G441 Clinical Education 1** 6 SH
Provides students with opportunities to practice examination, evaluation, and intervention skills previously learned in the classroom and on co-op. Students work under the supervision and guidance of a licensed physical therapist. Prereq. PTH U510 or PTH G226.

**PTH G442 Clinical Education 2** 6 SH
Continues PTH G441. Provides students with additional opportunities to practice examination, evaluation, and intervention skills learned in the classroom and during the previous course. Students are expected to function at a higher level requiring less supervision and guidance from a licensed physical therapist than was needed during their first clinical education experience. Prereq. PTH G441.

**PTH G443 Clinical Education 3** 6 SH
Continues PTH G442. Provides students with the opportunity to meet entry-level requirements to practice as a physical therapist. Students continue to practice examination, evaluation, intervention, documentation, and administrative skills under the supervision and guidance of a licensed physical therapist. Students are expected to function at the level of a new graduate by the completion of this experience. Prereq. PTH G442.

**PTH G444 Clinical Education Integration Seminar 2 SH**
Designed for students to develop case studies to integrate clinical experiences during affiliations. Prereq. PTH G441 or taken concurrently.

**PTH G448 Clinical Education 3** 9 SH
Designed to provide students with the opportunity to meet entry-level requirements to practice as physical therapists. Supervised and guided by a licensed physical therapist, students practice examination, evaluation, intervention, documentation, and administrative skills and are expected to function at the level of a new graduate by the completion of this experience. Includes a written assignment. Helps students, through reflection of what they have learned, identify who they are as professionals, establish early career goals, and provide insight for the need to be a lifelong learner. Prereq. PTH G442.

**PTH U201 Foundation of Physical Therapy** 3 SH
Introduces basic patient-care procedures and professional behaviors used in physical therapy practice. Prepares students for co-op education experiences and discusses implications for career planning. Coreq. PTH U202. Prereq. PTH students only.

**PTH U202 Lab for PTH U201** 1 SH
Accompanies PTH U201. Covers topics from the course through various experiments. Coreq. PTH U201.

**PTH U203 Human Skills Development** 2 SH
Examines typical skill development and maturation from intrauterine life through old age (senescence). The interaction of system development on acquisition of and changes in skill development are considered. Students apply developmental concepts to case studies and hypothetical clinical situations. Emphasizes childhood and early adult development as a foundation to the changes that occur later in adulthood and senescence. Prereq. PTH students only.
PTH U204 Therapeutic Modalities 1 SH
Provides application of physical agents to treat a variety of impairments found during a physical therapy examination. The theory, rationale, and application of thermal, electrical, light, and mechanical agents are covered. Coreq. PTH U205. Prereq. PTH students only.

PTH U205 Lab for PTH U204 1 SH
Accompanies PTH U204. Covers topics from the course through various experiments. Coreq. PTH U204.

PTH U301 Gross Anatomy 4 SH
Covers the structure and function of the human body with particular emphasis on the skeletal, muscular, nervous, and cardiovascular systems and clinical application to these systems. Considers basic abnormalities of structure and function. Involves lectures, cadaver prosection, osteology, and surface anatomy labs. Coreq. PTH U302. Prereq. BIO U119; PTH students only.

PTH U302 Lab for PTH U301 1 SH
Accompanies PTH U301. Covers topics from the course through various activities. Coreq. PTH U301.

PTH U303 Kinesiology 3 SH
Involves the study of movement through analysis of joint and muscle function. Covers basic kinesiology concepts as well as concepts related to pathological motions and/or postures. Such pathological concepts include gait analysis, soft tissue pathologies, overuse syndromes, and neurologic disorders. Emphasis is on detailed analysis of the various motions and postures encountered in the clinical setting. Offers students an opportunity to learn to describe the etiology and treatment of normal and abnormal movements and postures. Coreq. PTH U304. Prereq. BIO U119; PTH students only.

PTH U304 Lab for PTH U303 1 SH
Accompanies PTH U303. Covers topics from the course through various activities. Coreq. PTH U303.

PTH U305 Physical Therapy Professional Seminar 1 2 SH
Examines professional behavior concepts including consideration of ethical and legal issues. Promotes an understanding of personal values, beliefs, and attitudes as they impact on the interpersonal relationships in the professional environment. Includes reflections and cooperative education experiences. Prereq. PTH U201.

PTH U308 Neuroscience 4 SH
Covers the structure and physiological function of the human nervous system with emphasis on the clinical aspects of motor and somatosensory systems. The anatomy of the brain, brain stem, and spinal cord are studied in specimens and on slides and integrated with the basic physiology of motor and sensory systems. The application of neuroscience to clinical neurological cases is a foundation of this course. Coreq. PTH U309. Prereq. PTH U301.

PTH U309 Lab for PTH U308 1 SH
Accompanies PTH U308. Covers topics from the course through various experiments. Coreq. PTH U308.

PTH U310 Pathology 4 SH
Covers general medicine, lab medicine, and pathology as related to conditions commonly treated by health-care professionals. Provides the foundation for PTH G240. Coreq. PTH U311. Prereq. PTH U301.

PTH U311 Recitation for PTH U310 0 SH
Provides small-group discussion format to cover material in PTH U310. Coreq. PTH U310.

PTH U351 Physical Therapy Business Management 2 SH
Introduces students to the strategy and business-planning principles, tools, and resources related to developing a new business, service, or product relevant to the physical therapy profession. The goal is for students to develop a business, implementation, and a marketing plan. Topics covered include issues related to business, finance, law, regulations, licensure, real estate, and marketing. Prereq. ENG U306 and MTH U280; PTH students only.

PTH U400 Motor Control 3 SH
Focuses on the theories and models of neuromuscular control and learning of human movement. Students examine the relationship between theory and practice and how motor function may be altered by a variety of factors. Coreq. PTH U402. Prereq. PTH U301 and PTH U303.

PTH U402 Lab for PTH U400 1 SH
Accompanies PTH U400. Covers topics from the course through various experiments. Coreq. PTH U400.

PTH U404 Psychosocial Management 2 SH
Examines the diverse and cultural variations on patients/clients’ responses to disability and illness. Offers students the opportunity to reflect on the provider’s behavior in relation to clients’ behaviors. Prereq. PSY U404; PTH students only.
PTH U503 Cardiovascular and Pulmonary Management 4 SH
Discusses physical therapy examination, interventions, and outcome assessment of common cardiac and pulmonary dysfunctions. Etiology and pathology of common cardiac and pulmonary disorders are discussed. Case-based learning is used to promote synthesis of the material. Coreq. PTH U504. Prereq. PTH U310.

PTH U504 Lab for PTH U503 1 SH
Accompanies PTH U503. Covers topics from the course through various experiments. Coreq. PTH U503.

PTH U505 Musculoskeletal Management 1 4 SH
Discusses physical therapy examination, interventions, and outcome assessment of common musculoskeletal dysfunctions. Case-based learning is used to promote synthesis of the material. Coreq. PTH U506. Prereq. PTH U303.

PTH U505 Lab for PTH U505 1 SH
Accompanies PTH U505. Allows for practice of tests and measures, joint mobilization, and therapeutic exercise. Coreq. PTH U505.

PTH U510 Physical Therapy Professional Seminar 2 2 SH
Continues PTH U305 and builds on concepts introduced in the earlier course. Students are given the opportunity to reflect on issues in experiential education and prepare for future experiential learning. Prereq. PTH U305.

PTH U512 Physical Therapy Project 1 3 SH
Provides students with the opportunity to conduct an independent project under the mentorship of physical therapy faculty in areas such as research, education, clinical practice, administration, or service learning. Prereq. BHS U450 and PTH U520.

PTH U515 Integumentary System and Advanced Modalities 2 SH
Applies anatomy, physiology, epidemiology, and pathology in exploring the issues of medical, surgical, pharmacological, and psychological and physical therapy management of individuals throughout the life span with integumentary system impairments. Develops examination skills to derive diagnoses, prognoses, evaluations, and effective physical therapy interventions based on relevant evidence. Information from PTH U204 is built upon to include electrophysiological testing and interpretation. Case studies used to integrate the information learned in class. Coreq. PTH U516. Prereq. PTH U204, PTH U301, PTH U503, and PTH U505.

PTH U516 Lab for PTH U515 1 SH
Accompanies PTH U515. Covers topics from the course through various experiments. Coreq. PTH U515.

PTH U517 Neurological Management 1 4 SH
Covers the foundations of the physical therapy examination, evaluation, and intervention with patients with neurological deficits. Includes the etiology, pathology, and medical management of common neurological disorders affecting the pediatric and adult population. Coreq. PTH U518. Prereq. PTH U400.

PTH U518 Lab for PTH U517 1 SH
Accompanies PTH U517. Covers topics from the course through various experiments. Coreq. PTH U517.

PTH U520 Clinical Integration 1: Evidence and Practice 2 SH
Prepares physical therapy students to safely manage patients in all inpatient settings such as the acute- and critical-care settings and the acute rehabilitation and skilled nursing home settings. Focuses on integrative analysis of multiple disease processes (spanning all practice patterns of musculoskeletal, neuromuscular, cardiovascular, pulmonary, and integumentary) and their respective medical and surgical management that is relevant to physical therapy management encountered in these settings. Enhances the student’s understanding of the scientific basis of physical therapy through a review of current scientific research, thereby helping the student to develop a foundation for evidence-based practice in these inpatient settings. Coreq. PTH U521. Prereq. PTH U503 and PTH U505.

PTH U521 Case Studies for PTH U520 1 SH
Discusses case studies relevant to the topics of PTH U520. Coreq. PTH U520.

PTH U531 Integrative Physical Therapy Practice 2 SH
Incorporates analysis and comparison of methods of physical therapy evaluation and intervention in home care and outpatient settings. Focuses on providing evidenced-based rationale for prescribed interventions and selection of intervention alternatives for medically complex patients. Implements evaluation and treatment that reflect core professional values. Discusses topics of prevention and wellness in various patient populations. Prereq. PTH U517 and PTH U520.

PTH U533 Physical Therapy Project 2 2 SH
Provides students with a continued opportunity to work with individual faculty on scholarship activities to create a scholarly work in partial fulfillment of the requirement for a Doctor of Physical Therapy degree. Provides students with the opportunity to complete the research or education project that was initiated in PTH U512 during the prior semester. Guides students as necessary to enable them to complete their capstone project. Prereq. PTH U512.
PTH U921 Directed Study 1 SH
PTH U922 Directed Study 2 SH
PTH U923 Directed Study 3 SH
PTH U924 Directed Study 4 SH

Offers independent work under the direction of members of the department on a chosen topic. Course content depends on instructor. *Prereq. Permission of instructor.*