

# PT - PHYSICAL THERAPY

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## **PT 5010 Clinical Applications I Cr. 1**

First part-time integrated clinical experience for physical therapy students. Orientation to clinical education and PT practice to develop professional behaviors, observation skills, fundamentals of written and verbal communication and basic examination and intervention skills in a clinical setting. Offered Winter.

**Fees:** \$20

## **PT 5020 Foundations of Physical Therapy Cr. 2**

**Satisfies General Education Requirement:** Writing Intensive Competency Sociological and historical background of the PT profession. Professional behavior, patient care interaction and medical terminology. Basic physical therapy care procedures, documentation, patient education, care in medical emergencies. Offered Fall.

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$90

## **PT 5030 Basic Patient Care in Physical Therapy Cr. 2**

Introduction to the basic skills necessary for patient care and provide a foundation to the theory and practice of basic patient care procedures for the Physical Therapist. Offered Fall.

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in a Doctor of Physical Therapy degree; enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$25

## **PT 5070 Clinical Applications II Cr. 2**

Second part-time integrated clinical experience for physical therapy students. This clinical education course includes and orientation to basic and intermediate examination and intervention skills, professional behavior, communication, documentation, inter-professional collaboration and team work. Offered Fall.

**Prerequisite:** PT 5010 (may be taken concurrently)

**Fees:** \$30

## **PT 5100 Therapeutic Exercise I Cr. 3**

Foundational course designed to focus on the principles and techniques of therapeutic exercise for patients with pathological conditions to the neuromusculoskeletal system. Students will develop and administer treatment plans for specific patient problems and progress treatment plans based on patient condition and response to treatment. Offered Fall.

**Prerequisite:** PT 5430 and PT 5500

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$100

## **PT 5120 Human Growth and Development Cr. 2**

Theories and basic principles in prenatal, physical, sensorimotor, perceptual, cognitive, social, emotional and language growth and development. Implications for physical therapy evaluation and treatment of children with developmental disabilities. Offered Spring/Summer.

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$10

## **PT 5300 Surface Anatomy Cr. 2**

Laboratory-based course teaching skills for soft tissue palpation, identification of surface anatomy landmarks, soft tissue mobilization and massage. Offered Fall.

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

## **PT 5320 Basic Examination and Evaluation Procedures Cr. 3**

Lecture and laboratory experience focusing on principles and procedures of foundational medical screening, physical therapy differentiation, and clinical reasoning and decision-making skills; basic principles and techniques for posture, integumentary, neurological, range of motion, and strength examination and evaluation, documenting progress and outcome, and the continued development of patient care skills. Offered Winter.

**Prerequisite:** PT 5030 and PT 5300 and PT 5505

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$10

## **PT 5400 Neurosciences for Health Care Professionals Cr. 3**

Study of the human central nervous system; emphasis on sensory and motor systems and structures that contribute to normal movement. Offered Fall.

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$50

**Equivalent:** OT 5400

## **PT 5410 Clinical Medicine I Cr. 3**

Designed to provide specific information needed by the physical therapist treating patients with a variety of diseases. Pathology, etiology, clinical signs and symptoms, prognosis, and treatment of a variety of illnesses and conditions relevant to physical therapy treatment are covered. The role of other health care specialists including physician, occupational therapist, speech pathologist, nurses and psychologists is explored. Offered Winter.

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy.

## **PT 5430 Clinical Medicine II Cr. 1**

Disease processes, and medical and surgical interventions. Role of physical therapy as part of comprehensive multi-disciplinary health care team. Offered Spring/Summer.

**Prerequisite:** PT 5410

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy.

## **PT 5500 Kinesiology and Biomechanics Cr. 3**

Normal movement and biomechanics applied to the human body. Offered Winter.

**Prerequisite:** PT 5505 and PT 5510 and PT 5400

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$20

## **PT 5505 Clinical Applications of Human Anatomy Cr. 3**

Knowledge of basic human anatomy for students in health science professional programs; foundation for further study in clinical sciences. Offered Fall.

**Restriction(s):** Enrollment is limited to students with a major, minor, or concentration in Occupational Therapy or Physical Therapy.

**Equivalent:** OT 5505

## **PT 5510 Clinical Applications of Human Anatomy: Laboratory Cr. 1**

Examination of dissections, dissection of human cadavers; didactic study. Offered Yearly.

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$220

**Equivalent:** OT 5510

**PT 5650 Pathophysiology for Health Sciences Cr. 3**

Fundamental knowledge of the nature of disease for the health sciences student; physiologic and morphologic changes accompanying disease processes; mechanisms of repair and recovery. Offered Fall.

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**Equivalent:** OT 5650, RT 5650

**PT 5660 Pathokinesiology Cr. 2**

A continuation of PT 5500 (Kinesiology and Biomechanics), this course is designed to teach: foundational principles regarding biomaterials, key biomechanical and kinesiological principles of human movement as related to anatomy and physiology, and application of this information to clinical situations that involve alterations in movement. Analyses of pathological motion and pathokinesiology of selected joints will be included. Offered Spring/Summer.

**Prerequisite:** PT 5500

**Corequisite:** PT 5670

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$10

**PT 5670 Special Test in Physical Therapy Cr. 1**

A continuation of PT 5300 (Basic Evaluation), this course is designed to teach Special Test as part of a physical therapy examination. Student will relate the special tests to appropriate pathologies, perform and interpret the results of special tests and discuss hypotheses in light of evidence-based knowledge. Offered Spring/Summer.

**Prerequisite:** PT 5300

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**PT 5800 Clinical Education I Cr. 3**

First of a four-course clinical education series. Six weeks of full-time supervised clinical experience for physical therapy students. Offered Yearly.

**Fees:** \$20

**PT 5820 Clinical Education II Cr. 3**

Second of a four-course clinical education series. Six-week of full-time supervised clinical experience for physical therapy students. Offered Spring/Summer.

**Restriction(s):** Enrollment limited to students in the Doctor of Physical Therapy program.

**Fees:** \$45

**PT 5990 Directed Study Cr. 1-4**

The remediation directed study has been designed to help students remediate for academic or clinical competency standards in the Physical Therapy program. The student will identify, based on performance areas of weakness on course content or clinical skills. Once identified a faculty mentor will assist the student in developing a plan to develop mastery of the content or clinical skills needed to be deemed competent in deficient areas and continue in the PT program. The remediation plan will then be implemented by the student. Offered Every Term.

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**Repeatable for 8 Credits**

**PT 6100 Therapeutic Exercise II Cr. 3**

Advanced application of principles and techniques of therapeutic exercise; evaluation and modification of therapeutic exercise plan of care, based on physical and functional responses and characteristics of patients or clients. Offered Fall.

**Prerequisite:** PT 5100

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$15

**PT 6300 Research I: Critical Thinking Cr. 2**

Introduction to evidence-based practice and clinical reasoning and decision making. Identification, location, critique and analysis of evidence. Offered Fall, Winter.

**Restriction(s):** Enrollment limited to students in the Doctor of Physical Therapy program.

**PT 6310 Advanced Exercise Physiology Cr. 2**

Metabolic, neuromuscular, cardiovascular, and respiratory adjustments to acute and chronic exercise in health and disease, including body composition and weight control, nutritional considerations, and the effects of different environments on exercise performance. Offered Fall.

**Equivalent:** KIN 6310, PSL 6010

**PT 6410 Special Topics in Physical Therapy I Cr. 2**

This course will cover the topics of teaching and learning, professionalism, cultural sensitivity and being successful as a physical therapy graduate student. Offered Spring/Summer.

**PT 6420 Special Topics in Physical Therapy II Cr. 2**

This course will cover the topics as related to the Physical Therapy including, Legal and Ethical Issues, Mental Health Considerations, and Complementary Therapies in Rehab. Offered Spring/Summer.

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy.

**PT 6430 Special Topics in Physical Therapy III Cr. 2**

This course will cover advance topics as related to the Physical Therapy including, Diversity and Implicit Bias, Oncology, and professional and individual aspects related to the transition from student to clinician. Offered Winter.

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy.

**PT 6500 Pharmacology Cr. 2**

Effects of drug distribution, absorption and excretion as pertaining to physical therapy. Major drug categories, OTC, and nutritional supplements, pertinent to acute and chronic responses to physical therapy; indications, mechanisms, effects. Offered Fall.

**Prerequisite:** PT 5430 and PT 5650

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**PT 6700 Motor Learning and Motor Control Cr. 2-3**

Current theories and concepts in processes of motor skill acquisition and performance, from a behavioral objective. Additional evidence-based case reports required if elected for three credits. Offered Winter.

**Prerequisite:** PT 5400 with a minimum grade of C-

**Restriction(s):** Enrollment limited to students in the Pharmacy and Health Sciences.

**PT 7000 Therapeutic Modalities Cr. 3**

Lecture and laboratory experiences focusing on principles and procedures for using physical agents and spinal traction. Tissue inflammation and repair, pain, superficial and deep heat, cryotherapy, electrotherapy, and spinal traction included. Integumentary evaluation and wound management. Offered Fall.

**Prerequisite:** PT 5430 and PT 5660

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$30

**PT 7100 Management of Patients with Orthopedic Conditions I Cr. 4**

Lecture and laboratory experience focusing on knowledge, principles, clinical reasoning and decision making skills, examination and evaluation procedures, and interventions required for managing patients with impairments, functional limitations, and disabilities due to musculoskeletal pathologies of the extremity joints across the life span, and the continued development of patient care skills. Offered Fall.

**Prerequisite:** PT 5300 with a minimum grade of C and PT 5320 with a minimum grade of C and PT 5500 with a minimum grade of C

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy; enrollment is limited to Graduate level students.

**Fees:** \$25

**PT 7120 Management of Patients with Orthopedic Conditions II Cr. 3**

Lecture and laboratory experience focusing on knowledge, principles, clinical reasoning and decision making skills, examination and evaluation procedures, and interventions required for managing patients with impairments, functional limitations, and disabilities due to musculoskeletal pathologies of the spinal column and extremity joints across the life span, and the continued development of patient care skills. Offered Winter.

**Prerequisite:** PT 7100

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$25

**PT 7200 Management of Patients with Neurological Disorders I Cr. 3**

Basic principles and techniques of assessing problems associated with neurological disorders including postural tone, sensation, superficial and developmental reflexes, quality of movement, perceptual-motor skills and functional mobility. Offered Yearly.

**Prerequisite:** PT 5400 and PT 6700

**Restriction(s):** Enrollment is limited to Graduate level students.

**Fees:** \$114

**PT 7220 Management of Patients with Neurological Disorders II Cr. 3**

Theory, principles and application of the neurophysiological approach to evaluation and treatment. Proprioceptive neuromuscular facilitation, neuro development treatment, sensory integration, and sensory-motor approaches. Offered Winter.

**Prerequisite:** PT 7200

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$35

**PT 7300 Orthotics and Prosthetics Cr. 3**

Principles and techniques of prosthetic and orthotic function, component selection and application, use and training. Upper and lower extremity devices, and spinal devices, wheelchairs, ambulatory aids, assistive devices and environmental control systems. Advanced gait and movement biomechanics and evaluation. Offered Fall.

**Prerequisite:** PT 5500 and PT 5660 and PT 7200

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy; enrollment is limited to Graduate level students.

**Fees:** \$25

**PT 7320 Rehabilitation Procedures Cr. 3**

Theoretical issues and treatment of patients with spinal cord injury, traumatic brain injury, problems of aging, and chronic neuromuscular conditions. Offered Fall.

**Prerequisite:** PT 7200 and PT 7220

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy; enrollment is limited to Graduate level students.

**Fees:** \$20

**PT 7400 Cardiopulmonary Rehabilitation Cr. 4**

Physiology and pathophysiology of disorders of the cardiac and pulmonary systems. Evaluation and treatment of cardiopulmonary disorders. Offered Winter.

**Prerequisite:** PT 5100 and PT 5430 and PT 6310

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$20

**PT 7600 Physical Therapy for Medical and Surgical Conditions Cr. 3**

Management of patients with complex problems including medical and surgical conditions seen in acute care hospital settings. Offered Winter.

**Prerequisite:** PT 5650 and PT 5430

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**Fees:** \$25

**PT 7700 Research II: Design & Methodology Cr. 2**

Introduction to basic principles of research theory, design, and methodology for physical therapy. Biostatistics and analysis of scientific literature relevant to physical therapy. Offered Fall.

**Prerequisite:** PT 6300

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**PT 7720 Research III: Data Analysis and Interpretation Cr. 2**

Basic principles of research design as it relates to the theory and practice of physical therapy. Students will analyze relevant scientific literature, design, develop and implement a research project, and learn basic computer skills in utilizing a statistical analysis program. Offered Fall.

**Prerequisite:** PT 7700 with a minimum grade of C

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy; enrollment is limited to Graduate level students.

**Fees:** \$20

**PT 7740 Research IV: Research Practicum Cr. 1**

Basic principles of research design as it relates to the theory and practice of physical therapy. Students will develop and implement a research project and present the results in several formats. Offered Fall.

**Prerequisites:** PT 6300, PT 7700, and PT 7720

**Restriction(s):** Enrollment is limited to Graduate level students.

**PT 7990 Directed Study Cr. 1-4**

Independent study: critical analysis or review of new or unique topics in health care; or physical therapy role, approach, methodology, techniques or scientific rationale for professional practice. Oral and written presentation required. Elective. Offered Yearly.

**Prerequisite:** PT 5100

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**PT 8000 Therapeutic Management of Pediatric Populations Cr. 3**

Principles and application of the elements of physical therapy practice in the management of pediatric populations. Offered Fall.

**Prerequisite:** PT 5120 with a minimum grade of C and PT 6700 with a minimum grade of C and PT 7220 with a minimum grade of C

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy; enrollment is limited to Graduate level students.

**Fees:** \$15

**PT 8110 Geriatrics Cr. 2**

Theories and basic principles of physical, sensorimotor, perceptual, cognitive, social, emotional, and language changes during the aging process. Emphasis is placed on the how the aging process impacts functional independence and contributions from all body systems. Implications for physical therapy evaluation and treatment for the aging population are examined. Offered Winter.

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy; enrollment is limited to Graduate level students.

**Fees:** \$50

**PT 8170 Professional Development and Reflective Practice Cr. 3**

Exploration of novice vs. expert practice in physical therapy; role of reflection in developing professional skills and behaviors. Current professional and legal issues in provision of physical therapy services. Web-based course. Offered Every Term.

**Restriction(s):** Enrollment limited to students in the Doctor of Physical Therapy program; enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**PT 8200 Management in Physical Therapy Practice Cr. 2**

Overview of health care systems; financing and administration of physical therapy services within various health care systems. Offered Fall.

**Restriction(s):** Enrollment limited to students in the Doctor of Physical Therapy program; enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**PT 8300 Differential Diagnosis for Health Sciences Cr. 3**

Principles and procedures designed to facilitate the integration of previously-introduced examination and evaluation skills, in order to perform differential diagnosis for primary care practice. Offered Every Term.

**Restriction(s):** Enrollment limited to students in the Doctor of Physical Therapy program; enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**PT 8400 Diagnostic Procedures for Health Sciences Cr. 2-3**

Medical diagnostic procedures and application of results as related to provision of physical therapy health services, including diagnostic imaging and laboratory tests. Additional project required if elected for three credits. Offered Every Term.

**Prerequisite:** PT 5650 with a minimum grade of C and PT 5430 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**PT 8500 Clinical Decision Making Cr. 3**

Integration of didactic and clinical knowledge in development of diagnostic prognostic skills in physical therapy; focus on refining competencies in peer referral across health care disciplines; development of strategies for clinical decision making. Offered Yearly.

**Prerequisite:** PT 6100 with a minimum grade of C and PT 7120 with a minimum grade of C and PT 7220 with a minimum grade of C and PT 7400 with a minimum grade of C

**Restriction(s):** Enrollment limited to students in the Doctor of Physical Therapy program; enrollment is limited to Graduate level students.

**Fees:** \$95

**PT 8600 Health Promotion and Wellness Cr. 2**

Dimensions of health promotion and wellness, including implementation strategies for different populations. Analysis of physical, emotional and cost benefits. Identification of needs and development of practice plan for groups and individuals. Offered Winter.

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy; enrollment is limited to Graduate level students.

**PT 8800 Clinical Education III Cr. 4**

Third in a four-course clinical education series. Twelve weeks of full-time supervised terminal clinical experience for physical therapy students with emphasis on progression to entry-level clinician. Offered Yearly.

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy; enrollment is limited to Graduate level students.

**Fees:** \$70

**Repeatable for 8 Credits**

**PT 8820 Clinical Education IV Cr. 8**

Fourth in a four-course clinical education series. Final full-time supervised terminal clinical experience for physical therapy students.

Twelve week full time experience with emphasis on progression to entry-level clinician. Offered Yearly.

**Restriction(s):** Enrollment is limited to students with a major in Physical Therapy; enrollment is limited to Graduate level students.

**Fees:** \$30

**PT 8850 Clinical Practicum Cr. 3**

Monitored clinical practice in a focused area of physical therapy practice.

Focus may include: administration and management, cardiopulmonary, neurology, orthopedics, integumentary care, pediatrics, and teaching. Offered Every Term.

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.