

# PHYSICAL THERAPY- DOCTORATE (DPT)

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## **DPT 500. Foundations of Physical Therapy. (3 Credits)**

Foundations of Physical Therapy introduces students to issues related to the profession of Physical Therapy and to basic examination and patient care skills. It examines the legal aspects of practice, supervision of support personnel, and relationships with other health care professionals. Students are provided with laboratory opportunities that allow them to develop effective communication with patients, personal and patient safety, and basic mobility skills. Special emphasis is placed on learning the principles and techniques of measuring and documenting joint motion, muscle strength and posture. Pre-requisites: Admission to Concordia University's DPT program.

## **DPT 501. Human Anatomy I. (3 Credits)**

Human Anatomy I is an integrated approach to the gross anatomy of the human body, with particular emphasis on the muscles, bones, joints, vasculature, and nerves of the upper extremity. The laboratory portion of the course includes cadaveric dissection and examination of prosected human cadavers. Human anatomy is part of the professional Physical Therapy curriculum. As such, this course helps students develop their knowledge and understanding of the structure and function of the human body, and to prepare them for service as physical therapy professionals. Prerequisites: Admission to the CUW Doctor of Physical Therapy Program, or consent of instructor.

## **DPT 502. Human Anatomy II. (3 Credits)**

Human Anatomy II is an integrated approach to the gross anatomy of the human body, with particular emphasis on the muscles, bones, joints, vasculature, and nerves of the axial region (trunk, neck, skull, and face) and the lower extremity. Consideration will also be given to the study of cells, tissues, and organ systems. Concepts learned in Human Anatomy I will be incorporated throughout the course. The laboratory portion of the course includes cadaveric dissection and examination of prosected human cadavers. Human anatomy is part of the professional Physical Therapy curriculum. As such, this course helps students develop their knowledge and understanding of the structure and function of the human body, and to prepare them for service as physical therapy professionals. Course Prerequisites: Matriculation in the CUW Doctor of Physical Therapy Program and successful completion of Human Anatomy I, or consent of instructor.

## **DPT 505. Kinesiology. (5 Credits)**

Kinesiology is a foundation course that examines and analyzes human motion. Basic principles of osteokinematics, arthrokinematics, kinetics, levers, and moments are covered. Muscle mechanics and neural control of muscles and joints are also introduced. All joints of the extremities and the spine are then discussed with application of these principles. The concepts of joint dysfunction and muscle imbalance as related to clinical evaluation and treatment are introduced.

## **DPT 510. Evidence Based Practice I. (2 Credits)**

This course provides students with an opportunity to develop skills that are fundamental to making informed clinical decisions based upon the best available evidence. Students will learn the steps involved in making evidence-based decisions, use multiple resources to acquire published evidence, and develop the ability to understand basic statistics reported in the literature. Furthermore, basic concepts of measurement reliability and validity will be covered, including measurements made by observation of movement. Students will learn to make specific measurements germane to the practice of physical therapy and will understand concepts of reliability and validity as they apply to these measures.

## **DPT 535. Clinical Problem Solving Elective. (1-6 Credits)**

### **DPT 540. Clinical Decision Making. (2 Credits)**

This course provides an opportunity for students to practice the thought process used by physical therapists in making clinical decisions regarding patient care. The students will be given a framework by which to begin the clinical decision making process, including screening for medical referral and appropriateness of continuing with a physical therapy examination. This framework for decision making will be implemented into all courses within the curriculum. Students will gain additional experience with patient examination with emphasis on the subjective interview, evaluating examination data, developing a Physical Therapy diagnosis and prognosis, and practicing documentation of these findings within a SOAP note format. By the end of this course, students will be better able to demonstrate the ability to perform an effective subjective examination and identify patients that are appropriate either for continuation with a physical therapy examination or referral to another healthcare provider. Pre-requisites: Successful completion of Semesters 1 and 2 in the Concordia University Wisconsin DPT curriculum.

### **DPT 550. Pathophysiology/Pharmacology I. (4 Credits)**

Pathophysiology is the study of human physiologic function in disease. It examines the etiology, morphology and pathogenesis of human disease with correlations to clinical manifestations and treatment regimes. Pathological processes are addressed on both a structural and functional level. Sufficient review of basic scientific foundations is included to promote their application to pathophysiologic concepts. Special emphasis is placed on cellular and subcellular mechanisms which have broad applicability to pathophysiology of all organ systems, and specific organ systems including hematologic, cardiovascular and respiratory. Pediatric and aging concepts are also considered. Pharmacology will be introduced and drugs will subsequently be classified according to their approved therapeutic uses. Tutorial group sessions will be used for problem-based learning. This will include the use of acquired knowledge and skills to recognize, develop and demonstrate qualities required to assume the role of a health care provider, including responsibility to a team as well as communication and leadership skills, and to effectively promote the learning process. Prerequisites: Anatomy (BIO 550) Physiology (BIO 470)

### **DPT 555. Movement Analysis I. (1 Credit)**

Movement Analysis I provides students with fundamental knowledge and skill required to understand and perform functional, biomechanical, and observational analysis of normal human locomotion. Prerequisites: Good standing in CUW DPT program or consent of instructor.

### **DPT 560. Intro to Professional Practice. (2 Credits)**

This course introduces students to the profession of physical therapy, the role of the physical therapist within the healthcare team, relevant aspects of the practice environment and professional development.

**DPT 565. Therapeutic Exercise. (3 Credits)**

This course provides students with basic concepts and principles that guide the development of appropriate therapeutic exercise interventions for patients/clients across the lifespan. Pre-requisites: Successful completion of Foundations of Physical Therapy, Anatomy, Kinesiology, Pathology/Pharmacology I, and Clinical Decision Making.

**DPT 580. Management of Pediatric Disorders. (4 Credits)**

Management of Pediatric Disorders is the first course in a three-semester sequence addressing evaluation and treatment of clients with primary neurological diagnoses. Other common pediatric diagnoses managed by physical therapy will also be discussed. Students are provided opportunity to expand clinical decision-making skills within the context of physical therapy management of children with congenital and acquired impairments. The psychosocial aspects of disability will be addressed as they relate to the management of client support systems, environmental modification, and community integration/reintegration.

**DPT 584. Neuroscience I. (1 Credit)**

Introduction to Neuroscience is an integrated approach to neuroscience with an emphasis on cellular level anatomy and physiology. The course will incorporate an overview of the major regions and divisions of the nervous system, and will cover neurons and glial cells, information transmission including synaptic transmission, nervous system development, the ventricular system, meninges and connective tissues, neuroplasticity, and aging. The impact of injury or disease affecting these aspects of the nervous system will also be covered. The lab/discussion portion of the course includes activities designed to integrate the neurological concepts from the lectures and readings, including the examination of cadaveric dissections of the nervous system and meninges. This course helps students begin to develop their knowledge and understanding of the structure and function of the human nervous system and the impact of injury or illness on movement and function. Prerequisites: Admission into the CUW Doctor of Physical Therapy Program, or consent of instructor.

**DPT 585. Neuroscience II. (2 Credits)**

Neuroscience II is an integrated approach to the principles of human nervous system structure and function, with an emphasis on the peripheral and spinal regions. The anatomy of these regions and the vascular supply of the spinal cord, as well as spinal reflexes and circuits will be described. The course will include discussion of somatosensory and motor (somatic and autonomic) pathways of the limbs, trunk, and face, as well as spinal level circuits and reflexes, and their interactions. The impact of injury or disease affecting the peripheral and spinal regions will also be covered. Concepts learned in Neuroscience I will be incorporated throughout the course. The laboratory/discussion portion of the course includes gross examination of the human spinal cord, the surrounding connective tissues, and nerve roots; as well as activities designed to integrate neurological concepts of these regions. This course helps students develop their knowledge and understanding of the structure and function of the spinal and peripheral regions of the human nervous system and the impact of injury or illness on movement and function. Pre-requisites: Successful completion of previous course work in the DPT curriculum.

**DPT 586. Neuroscience III. (2 Credits)**

Neuroscience III is an integrated approach to the principles of human nervous system structure and function; with an emphasis on the brainstem, cerebellum, and cerebrum. The anatomy of these regions and their vascular supply, as well as their functional components will be described. The course will cover somatosensory, motor (somatic and autonomic), limbic, cognitive, vestibular, and special sensory systems and their interactions along with detailed discussion of the cranial nerves. The impact of injury or disease affecting these regions of the nervous system will also be covered. Concepts learned in Neuroscience I and Neuroscience II will be incorporated throughout the course. The laboratory/discussion portion of the course includes gross examination of the human brain and brainstem, its surrounding connective tissues and blood vessels, and cranial nerves; as well as activities designed to integrate neurological concepts. This course helps students develop their knowledge and understanding of the structure and function of the human nervous system and the impact of injury or illness on movement and function. Pre-requisites: Successful completion of previous coursework in DPT curriculum.

**DPT 602. Community Clinic I. (1 Credit)**

The Community Clinic course will provide the student with opportunities to integrate current professional and personal knowledge, attitudes and skills into service activities performed in various community settings and into inter-professional learning activities. The provision of service will focus on service which positively impacts the health and wellness of defined community populations. Sections of the course will occur in every fall and spring semester of the Physical Therapy curriculum beginning in the fall semester of year two.

**DPT 609. Exercise Science I. (3 Credits)**

Exercise Science provides students with the basic concepts and principles that guide the development of comprehensive physical therapy patient/client management. The course emphasizes adaptations brought on by acute and chronic exercise in both normal and abnormal physiological systems. Pre-requisites: The successful completion of previous coursework in the DPT curriculum.

**DPT 610. Management of Neuromuscular Disorders - Adult I. (3 Credits)**

Management of Neuromuscular Disorders I will introduce students to the basic concepts of neuro rehab that are not specific to specific medical diagnoses. This course will include the neuro exam, introduction to basic techniques like neural facilitation and inhibition, and common tests, measures, and interventions for postural control, reach and grasp, and mobility. Movement system diagnoses will be included and applied to cases.

**DPT 611. Management of Neuromuscular Disorders - Adult II. (3 Credits)**

The course presents therapeutic intervention from a human movement perspective, emphasizing principles introduced in DPT 615 (Movement Science) and DPT 610 (Management of Neuromuscular Disorders – Adult I). Students are provided with opportunities to expand clinical decision-making skills in the physical therapy management of adults with acquired central nervous system dysfunction.

**DPT 612. Community Clinic II. (1 Credit)**

The Community Clinic course will provide the student with opportunities to integrate current professional and personal knowledge, attitudes and skills into mentoring opportunities, service activities performed in various community settings including pro bono clinic, and inter-professional learning activities. The provision of service will focus on service which positively impacts the health and wellness of defined community populations. Sections of the course will occur in every fall and spring semester of the Physical Therapy curriculum beginning in the fall semester of year two.

**DPT 615. Movement Science. (4 Credits)**

Movement Science exposes students to current theory in motor control, motor learning, and motor development. The course reviews the processes and constraints that define acquisition, retention, and change of motor behavior across the lifespan. Students will be exposed to tools used to examine and describe movement in a clinical setting. The course is designed around four main topics: postural control, control of mobility, control of reach and grasp, and motor learning.

**DPT 625. Therapeutic Modalities. (4 Credits)**

This course teaches the use of biophysical agents / modalities in physical therapy practice from a physiological perspective. Students will learn to use modalities for inflammation control, tissue repair and healing, strengthening, motor control and pain management. Students will learn to incorporate the use of all categories of biophysical agents including thermal, mechanical, and electromagnetic (electromagnetic fields and electric currents) into a safe physical therapy plan of care and appropriately document their use. Prerequisites: Successful completion of the previous semesters of the DPT curriculum.

**DPT 628. Clinical Problem Solving I. (2 Credits)**

This 3-week clinical experience is the first in a three-course sequence of clinical decision making experiences completed in the clinical environment. This course expands upon the clinical decision making skills introduced in the academic setting in semester one. The teaching model for this experience is a structured model which may be collaborative (2 or 3 students with one clinical instructor). Pre-requisites: Limited to students in good standing in the Physical Therapy Program; participation in mandatory orientation sessions; successful completion of all courses in semester.

**DPT 630. Clinical Problem Solving II. (2 Credits)**

This 3-week clinical experience is the second in a three-course sequence of clinical decision making experiences, completed in pediatric clinical environments in the United States. Students are provided the opportunity to integrate academic course work in normal motor development and rehabilitation of children with developmental challenges with clinical practice. This clinical experience serves as an introduction to pediatric clinical practice.

**DPT 631. Clinical Problem Solving III. (6 Credits)**

This 10-week clinical experience is the final course in the integrated clinical experiences, and the first longer-length clinical exposure for the students. The course follows the two-course sequence in management of the client with neuromuscular dysfunction and the three-course sequence in management of the client with musculoskeletal dysfunction. It is designed to integrate academic coursework in rehabilitation of adults with neurological and/or musculoskeletal dysfunction with clinical practice. Pre-requisites: Limited to student in good standing in the Physical Therapy Program; participation in all mandatory orientation sessions.

**DPT 635. Evidence Based Practice II. (3 Credits)**

This course provides students with an opportunity to refine and expand upon what was learned in DPT 510 Evidence Based Practice I. Students will continue to gain knowledge and refine skills that are fundamental to making relevant clinical decisions based upon the best available evidence. Students will develop patient-specific foreground questions, acquire research articles, appraise the quality of the evidence, and make a clinical decision regarding the patient. Statistical concepts and principles essential for interpreting research evidence will be explored. Students will develop a searchable foreground question based upon a personal experience with a patient, acquire evidence to answer it, appraise the evidence, and articulate the answer to the question contrasting the relative strengths and limitations of the available evidence.

**DPT 650. Pathophysiology/Pharmacology II. (4 Credits)**

This course is the second in a two-course sequence that studies human physiologic functions in disease. It examines the etiology, morphology and pathogenesis of human disease with correlations to clinical manifestations and treatment regimes. Pathological processes are addressed on both a structural and functional level. Sufficient review of basic scientific foundations is included to promote their application to pathophysiological concepts. Special emphasis is placed on specific organ systems including integumentary, musculoskeletal, neurologic, endocrine, renal/urologic, and digestive. Pediatric and aging concepts are also considered. Pharmacology relevant to these systems will be discussed and drugs will subsequently be classified according to their approved therapeutic uses. Prerequisites: DPT 550.

**DPT 655. Movement Analysis II. (3 Credits)**

Movement Analysis II provides students with fundamental knowledge and skill required to understand and perform functional, biomechanical, and observational analysis of pathological human movement. The course develops student skill in observational analysis, integration of data into a physical therapy evaluation, and performing ergonomic assessments, and provides an understanding of the principles, prescription, and management of individuals requiring an UE or LE orthoses and prosthesis. Prerequisites: Good standing in CUW DPT program or consent of instructors.

**DPT 659. Introduction to Management of Musculoskeletal Disorders. (2 Credits)**

Management of Musculoskeletal Disorders develops the skills required to perform a musculoskeletal examination/evaluation, determine the movement dysfunction and formulate, implement and modify an intervention plan. The first semester of the sequence emphasizes examination/evaluation principles, systems review (medical screening), and the theories and techniques of mobilization. These principles will be incorporated into examination and intervention of the various joint complexes in the next two musculoskeletal courses. Students will be responsible for knowing muscle innervations, origins and insertions and components of a neurologic examination.

**DPT 660. Management of Musculoskeletal Disorders I. (4 Credits)**

Management of Musculoskeletal Disorders I develops the skills required to perform a musculoskeletal examination/evaluation, determine the movement dysfunction and formulate, implement and modify a treatment intervention plan for the lumbar spine, pelvis and lower extremities. The second semester of the sequence emphasizes examination techniques, soft tissue mobilization and exercise progression. The principles of examination/evaluation, systems review (medical screening), and the theories and techniques of mobilization and massage will be incorporated into examination/evaluation and treatment intervention for the lumbar spine, pelvis and lower extremity dysfunction. The student is expected to apply previous knowledge and skills. Each student will also be responsible for performing manual muscle testing and goniometry to the spine and extremities. A component of the course involves examination, evaluation and intervention of clients with lower quadrant musculoskeletal problems.

**DPT 661. Management of Musculoskeletal Disorders II. (4 Credits)**

Management of Musculoskeletal Disorders II develops the skills required to perform a musculoskeletal examination/evaluation, determine the movement dysfunction and formulate, implement and modify an intervention plan. The second semester of the sequence utilizes the principles of examination/evaluation, systems review (medical screening), and the theories and techniques of mobilization and massage which are incorporated into examination and intervention of the temporomandibular joint, cervical and thoracic spine, shoulder, elbow, wrist, and hand. You will be responsible for the previous knowledge of muscle innervations, origins and insertions, and components of a neurologic examination. You will also be responsible for performing manual muscle testing and goniometry to the spine and extremities. A component of the course involves examination, evaluation and intervention of clients with upper quadrant musculoskeletal problems.

**DPT 665. Management of Integumentary Disorders. (2 Credits)**

This course provides students with knowledge and skills required for physical therapy management of patients with disorders of the integumentary system. This course is being presented in a blended format where lectures will be available online and in-class learning activities will focus on hands-on LAB techniques, patient case applications, and discussions relevant to online content. Guest speakers will present their content in the form of lecture/LAB relevant to their specialty area. Students will learn the basic physiology of wound healing, how to perform comprehensive screens and examinations of the integumentary system, develop a plan of care, and acquire knowledge of specific types of wounds and burns. Universal precautions, wound prevention, and safety will be emphasized throughout the course. Students will be introduced to interventions that require additional post-professional training, including sharp debridement. Discussion will also take place in regards to physical therapy practice patterns when a patient should or should not be delegated to a physical therapist assistant or referred to another healthcare provider. Pre-requisites include successful completion of prior coursework in the DPT curriculum.

**DPT 675. Topics in Orthopedic Manual PT. (3 Credits)**

This course will expand on the application of entry level concepts, techniques, and motor skills required to perform safe and efficient musculoskeletal examinations and evidence-based manual therapy interventions for the lumbar, thoracic, and cervical spine, pelvis, and extremities. Participants will refine examination techniques and discuss best practice guidelines for the application of manual therapy interventions, exercise progressions, and pain neuroscience education principles. Participants will be required to demonstrate proficiency with essential skills in examination and intervention domains.

**DPT 676. Topics in Sports Medicine PT. (3 Credits)**

This lecture/ lab course is intended to expand the student understanding of higher-level movement disorders encountered in Orthopedic and Sports Physical Therapy. Movement disorders will be analyzed through a variety of evaluative methods. Sport-specific interventions will be discussed for prevention and return to sport.

**DPT 705. Medical Imaging. (3 Credits)**

Medical Imaging presents an overview of basic (plain film) radiographic imaging with an emphasis on the role of the Physical Therapist in clinical decision-making regarding the utilization and interpretation of diagnostic images. Advanced imaging studies will also be addressed with a focus on the strengths and weaknesses of each modality. The course will emphasize imaging of the adult musculoskeletal system, as well as identification of normal anatomy and abnormalities through a routine search pattern. This topic is presented within the current legal and ethical scope of physical therapist practice.

**DPT 709. Exercise Science II. (2 Credits)**

This seminar explores responses of the human body to exercise in the presence of pathological conditions. Students examine how common pathologies and exercise responses influence one another and learn precautions for certain medical diagnoses. Students independently explore and report on a topic of personal interest.

**DPT 723. Cardiopulmonary Systems/Acute Care. (4 Credits)**

Cardiopulmonary Systems/Acute Care will address the physiology of the cardiovascular and pulmonary systems in healthy and diseased states. Students will learn to evaluate and design appropriate treatment regimes that relate to improving a client's physical well-being. These regimes will cover the spectrum of rehabilitation from the acute care team approach to long-term fitness management. Prerequisites: Admission to Concordia University's DPT program and successful completion of prior coursework.

**DPT 736. Tissue/Biomechanics/Histology. (3 Credits)**

Tissue Biomechanics is an opportunity for students to continue their exploration of neuromusculoskeletal tissue. Biological tissues are examined from a structural and functional perspective. The histology and structure of bone, cartilage, dense connective tissue, peripheral nerves and skeletal muscle are described. Their response to loading, unloading, injury, immobilization and aging are investigated. In addition, fracture management, and the biomaterials used in surgical interventions are discussed. The influence of common prescription and over-the-counter medications observed in clinical practice is discussed as it relates to biological tissue stress. Prerequisites: successful completion of the first semester in the Physical Therapy program at CUW as a DPT student.

**DPT 738. Psychosocial Dimensions of Healthcare II. (1 Credit)**

This course is the second in a 3-course sequence that provides students with an opportunity to examine psychological and social factors that influence the client-clinician interaction. Concepts that are discussed through the full sequence are related to personal and professional values, client-clinician relationships, communication, collaborative treatment planning, cultural sensitivity, motivation, adherence, spirituality, response/adjustment to disability and chronic illness, abuse, loss, and grief. This second course focuses on issues of cultural sensitivity as they affect clients seen in clinical practice. The course is offered concurrently with a student clinical-practice experience, and assignments encourage application of course content to clinical practice. Prerequisite: DPT 737

**DPT 742. Psychosocial Dimensions of Rehabilitation I. (1 Credit)**

This course is the first in a 2-course sequence that provides students with an opportunity to examine psychological and social factors that influence the client-clinician interaction. Concepts that are discussed through the full sequence are related to personal and professional values, client-clinician relationships, communication, collaborative treatment planning, cultural sensitivity, motivation, adherence, spirituality, response/adjustment to disability and chronic illness, abuse, loss and grief. This first course focuses on issues of client-centered practice. The course is offered in relation to the student's previous clinical practice experiences and assignments encourage application of course content to clinical practice.

**DPT 743. Psychosocial Dimensions of Rehabilitation II. (1 Credit)**

This course is the second in a 2-course sequence that provides students with an opportunity to examine psychological and social factors that influence the client-clinician interaction. Concepts that are discussed through the full sequence are related to personal and professional values, client-clinician relationships, communication, collaborative treatment planning, cultural sensitivity, motivation, adherence, spirituality, response/adjustment to disability and chronic illness, abuse, loss and grief. This course focuses on issues of loss, grief, and coping as it affects clients seen in clinical practice. The course is offered concurrent with a student clinical-practice experience and assignments encourage application of course content to clinical practice.

Prerequisite: DPT 742.

**DPT 744. Practice Management. (2 Credits)**

Practice Management teaches students the leadership, administration, management and professionalism skills necessary for entry level Physical Therapy practice in the current health care system. The course focuses on the healthcare environment, the business of health care and professional development. Topics of study include characteristics of the US healthcare system, leadership, employment obligations, career planning, and professional development. Practice issues of documentation, billing/coding, case management, and legal/ethical considerations will be addressed. Business topics covered include strategic planning, payment/reimbursement, policies/procedures, risk management, outcomes, quality improvement, budgeting, and marketing. Prerequisites: Completion of coursework in the professional DPT program, year one and two.

**DPT 745. Health Promotion. (2 Credits)**

This course explores the role of the Physical Therapist in the areas of health promotion, disability prevention, and wellness, and provides students with applied knowledge in these areas. In addition, students will develop skills in performing community health screenings. Students will demonstrate appropriate application of theories of behavior change and health literacy as they develop programs of health promotion, prevention and wellness in a culturally competent manner to defined population groups. Opportunities for students to incorporate evidence-based practice, educate community groups, demonstrate professional behaviors, and participate in advocacy activities will be made available throughout the course.

**DPT 750. Selective Topics in Pediatric Physical Therapy. (3 Credits)**

This course will be appropriate for those students interested in working with pediatric clients. The class is designed to improve your ability to perform clinical and standardized evaluations; interpret and organize the data based on the ICF model and to develop evidence-based treatment plans and intervention strategies to address the impairments interfering with function and participation. The goal of this course is to expand and refine the clinical decision-making, observation, analysis and handling skills developed in previous courses. This will be accomplished through a variety of strategies including group discussion and problem solving, video analysis, task and movement analysis, and client practicum.

**DPT 751. Selective Topics in Adult Neurological and Geriatric Physical Therapy. (3 Credits)**

The Adult Neuro/Geriatrics elective is designed to improve students' ability to design and perform evaluations, data interpretation, and evidence-based treatment plans with implementation that addresses problems commonly seen in aging adults especially with neurological disorders. The course will expand and refine the clinical reasoning and treatment skills from previous courses. Learning strategies include lecture, group discussion and literature reviews, labs, guest speakers, field trips, and individual projects and presentations. Topics of focus will include normal and pathological changes in the geriatric client, psychosocial aspects of aging, cognitive changes and communication strategies, appropriate exercise prescriptions, falls prevention strategies, and health promotion for maintaining a high quality of life.

**DPT 760. Clinical Practice I. (6 Credits)**

Physical Therapy Clinical Practice I/II involve two 9-week full-time clinical education experiences or one full-time 18-week experience. They occur after all didactic coursework is complete and provide summative clinical practice opportunities for the students. The practice setting and patient population will be developed in conjunction with the student's academic advisor to meet student needs.

**DPT 761. Clinical Practice II. (6 Credits)**

Physical Therapy Clinical Practice I/II involve two 9-week full-time clinical education experiences or one full-time 18-week experience. They occur after all didactic coursework is complete and provide summative clinical practice opportunities for the students. The practice setting and patient population will be developed in conjunction with the student's academic advisor to meet student needs.

**DPT 786. Community Clinic III. (1 Credit)**

The Community Clinic course will provide the student with opportunities to integrate current professional and personal knowledge, attitudes and skills into service activities performed in various community settings and into inter-professional learning activities. The provision of service will focus on service which positively impacts the health and wellness of defined community populations. Sections of the course will occur in every fall and spring semester of the Physical Therapy curriculum beginning in the fall semester of year two.

**DPT 800. Medical Screening and Examination for the Orthopedic Resident. (1 Credit)**

This course is designed to include learning experiences through on-line lectures and independent acquisition of information. This information will prepare the resident for practicing collaboratively in a health care system and communicating effectively with other health care providers. In addition, the resident will acquire examination tools essential for the interpretation of all clinical examination data. This will enable them to identify clinical scenarios that require physician referral through a sound, efficient clinical decision-making process. Likewise, enhanced medical screening skills will help minimize risk to the patient and clinician. Content in the course will include: 1) screening for red flags in the spine and extremities; 2) reviewing medical images of the spine and extremities; 3) performing a quality subjective interview; 4) incorporating evidence-based practice; 5) understanding medication interactions and 6) examination and review of case studies. The delivery of content will primarily be through on-line instruction. Prerequisites: Acceptance into the CUW Orthopedic Residency Program

**DPT 801. Clinical Examination and Treatment of the Spine. (3 Credits)**

This course is designed to include traditional learning experiences through lecture, hands-on lab experiences and independent acquisition of information. The course will provide scientific knowledge associated with clinical practice of the spine. Content in the course will include: 1) examination and assessment of spine disorders; 2) conservative interventions to address spine pathologies; 3) use of external devices 4) in-depth review/ study of anatomy and kinesiology; 5) management of common post-operative spine conditions; and 6) incorporation of evidence-based practice; 7) examination and review of case studies. The delivery of content will include on-line and face-to-face instruction. The course is intended to not only expand the resident's understanding of orthopedic physical therapy of the spine, but also to guide orthopedic clinical practice related to common orthopedic spinal disorders.

**DPT 802. Clinical Examination and Treatment of the Upper Extremity. (1-3 Credits)**

This course is designed to include traditional learning experiences through lecture, hands-on lab experiences and independent acquisition of information associated with clinical practice in Physical Therapy. The course will provide scientific knowledge associated with the Upper Extremity (UE). This will include information on the following: 1) examination and assessment of UE disorders; 2) interventions to address UE disorders; 3) use of external devices 4) in-depth review/ study of anatomy and kinesiology; 5) video movement analysis; 6) management of common post-operative conditions; and 7) incorporation of evidence-based practice; 8) review of case studies. The delivery of content will include on-line and face-to-face instruction.

**DPT 803. Clinical Examination and Treatment of the Lower Extremity. (3 Credits)**

This course is designed to include traditional learning experiences through lecture, hands-on lab experiences and independent acquisition of information associated with clinical practice in Physical Therapy. The course will provide scientific knowledge associated with the Lower Extremity (LE). This will include information on the following: 1) examination and assessment of UE disorders; 2) interventions to address UE disorders; 3) use of external devices 4) in-depth review/ study of anatomy and kinesiology; 5) video movement analysis; 6) management of common post-operative conditions; and 7) incorporation of evidence-based practice; 8) review of case studies. The delivery of content will include on-line and face-to-face instruction.

**DPT 804. Motor Control for the Orthopedic Resident. (1 Credit)**

This course is an advanced Physical Therapy Orthopedic practice experience. This course will incorporate movement analysis for common orthopedic dysfunctions of the UE, LE or spine. The primary role of this course is to develop movement-appropriate intervention techniques with differentiation of deep stabilizing muscles using feed forward activation. The movement strategies acquired in this course can be used as complimentary interventions for general strengthening and/ or manual therapy interventions.

**DPT 805. Clinical Mentoring for the Orthopedic Resident. (1-5 Credits)**

This course is an advanced Physical Therapy Orthopedic practice experience. The course is designed to include live clinic learning experiences through one-on-one, face-to-face observation and instruction between an approved clinical mentor and the orthopedic resident. The clinical mentoring begins immediately following enrollment into the Concordia University Orthopedic Residency Program and will last for the 12 month duration of the residency program. The resident will receive guidance from the mentor. However, the resident will also receive learning opportunities based on their own reflection of their clinical performance. The resident will also utilize patient outcomes to analyze their performance. Advanced clinical decision making using best available evidence will be accentuated throughout the mentoring process.

**DPT 806. Orthopedic Clinical Specialist Preparatory Course. (1 Credit)**

This course is designed to prepare the resident for the OCS exam for advanced certification through the American Board of Physical Therapy Specialties (ABPTS). This is a self-paced, independent study course with various learning guides throughout the course. This is the final course in the Residency curriculum.

**DPT 807. Clinical Research for the Orthopedic Resident. (0.5-1 Credits)**

This self-paced course allows the Resident to design a clinical research study or case study including development of a research proposal for IRB approval. The Resident will be guided through the data collection process. Dissemination of research findings will be the culminating activity for the course.

**DPT 5221. Introduction to Professional Formation. (3 Credits)**

Students explore the foundational principles related to becoming a professional, an overview of the professional curriculum, learning sciences, reflective practice, relational coordination, communication, evidence-based culture, and ambiguity in practice. Students use knowledge of emotional intelligence to recognize personal emotional reactions during communication. Students begin their portfolio documenting professional growth and reflection on experiences.

**DPT 5331. Health Literacy, Patient Education, and Prevention. (2 Credits)**

The principles of teaching/learning, health literacy, and barriers/facilitators of learning are explored and applied to self and others. Students learn a patient-centered approach to patient education, including assessing readiness for learning, adapting instruction to the learner's needs, and evaluating learning outcomes. Students compare/contrast behavior change theories/models as they apply to individual patients or communities. Historical examples of prevention campaigns (seat belts, helmets, infant sleeping positions, masks) are evaluated. Legal/ethical issues surrounding patient education and physical therapist scope of practice is analyzed as related to screening, health promotion, prevention, and wellness services. Appropriate referral to community resources (smoking cessation, AA, exercise programs) is discussed through case vignettes and/or community experiences.

**DPT 5431. Foundations of Patient Management. (3 Credits)**

This course introduces frameworks to help students create a schema for physical therapist practice and clinical reasoning, including the International Classification of Functioning, Disability, and Health Framework (ICF), Guide to Physical Therapist Practice (Guide), Patient/Client Management Model, Patient-centered Care, Lifespan Perspectives, Interprofessional Collaborative Practice, and the Movement System framework. Relational coordination as applied to healthcare systems are also discussed. Principles of pharmacology and imaging are also introduced, as are the categories of tests/measures and interventions described in the Guide to PT Practice. Students learn the fundamentals of documentation as a legal record of patient care.

**DPT 5432. Patient Encounter. (4 Credits)**

Students engage as a novice in patient management, including physical therapy exam (history, systems review, and tests/measures of body structure/function, activity (gait speed, TUG, chair rise, 6MWT), and participation (i.e. quality of life measures, impact scales), evaluation (including prognosis and diagnosis), and interventions. Using a patient-centered and movement-oriented approach helps students integrate all domains of learning (cognitive, affective, psychomotor). Students learn the fundamentals of documentation of a patient encounter.

**DPT 5551. Foundational Science I: Anatomy and Palpation. (6 Credits)**

This course consists of an in-depth study of the musculoskeletal and nervous system of the human body as it relates to structure and function. The major body systems are discussed in a regional presentation. Surface anatomy is incorporated throughout the course. Students practice palpating key musculoskeletal landmarks. Palpation skills are then enhanced during dynamic interactive lab sessions with immediate feedback.

**DPT 5561. Mobility Training. (2 Credits)**

Students integrate principles of motor control and motor learning to the instruction of psychomotor skills to patients. This course focuses on mobility training, including gait training with/without assistive devices and with/without orthotics, and instruction of transitional movements including transfers, sit to stand, stand to sit, bed mobility, and wheelchair navigation. Students learn to document mobility interventions in a manner that demonstrates skilled intervention.

**DPT 7222. PTs as Moral Agents and Influencers. (3 Credits)**

Moral agents are responsible to act on the behalf of others and to protect society's most vulnerable populations. Students learn to deeply value their professional obligation to become a moral agent, reflected in the profession's code of ethics, core values, standards of practice, practice acts, and the impact of professional misconduct on the profession and society. Case studies and ethical scenarios are used to stimulate curiosity, analysis, and deep learning about the process of becoming a moral agent and advocating for elimination of policies that perpetuate systemic racism and unequal access to healthcare for underrepresented minorities. Vignettes and active learning assignments stimulate students to enhance relational coordination skills and understand their role as an influencer in health care, policies, and in society. An evidence-based culture is introduced through exploration of evidence search strategies, research ethics, principles of measurement, and statistical analysis.

**DPT 7223. PTs as Coach and Collaborators. (3 Credits)**

Students expand their ability to collaborate with others to provide patient-centered care, in addition, students practice relational coordination skills with co-workers, teams, and patients/families to co-produce patient outcomes. Students gain skills related to patient/client instruction, motivational interviewing, and coaching behavior change with individuals and communities. Students learn to apply principles of negotiation, conflict resolution, and relational leadership with patients, families, teams, and communities. Systems theory as applied to families and organizations provides a framework for navigating conflict and advocating for change. Class discussions and journal clubs guide students through the process of appraising diagnostic and prognostic evidence, comparing research methodologies, and interpreting systematic reviews, clinical practice guidelines (CPGs) and clinical prediction rules.

**DPT 7332. Health, Disease and Society. (3 Credits)**

Students begin exploring biopsychosocial aspects of health, disease, and society through a personal assessment of their physical (physical activity, exercise, nutrition, social habits), mental (mindfulness, stress, anxiety), emotional, and spiritual health in order to identify priorities for personal change. Evidence-informed strategies for enhancing mindfulness and managing stress and anxiety are discussed. Societal issues and current resources related to illness and death, suicide, addiction, violence, and aging are explored. Students analyze US and global models of healthcare delivery, population health, and begin recognizing social determinants of health. Assignments and discussions facilitate deep understanding of the quadruple aim of healthcare, the economic burden of chronic disease, and the role of physical therapists in optimizing movement to transform the human condition is integrated throughout the course.

**DPT 7333. Healthcare Systems, Policy, Social Determinants. (3 Credits)**

Students explore a variety of topics related to public health infrastructure, healthcare systems, accessibility to healthcare services, payment/insurance systems, value-based care, and growing movement towards preventive health. Social Determinants of Health (SDOH) are examined in context to the health of society and the provision of PT services, including the role of physical therapists to recognize and address the impact of structural racism on health and access to services. Students investigate and reflect on the impact of poverty, race, genetics, lifestyle, behavior, and the environment (air quality, global warming, water quality, pesticides, etc) on health and chronic disease. Students analyze the impact of health policies on the health of communities and populations, including rural, urban, and other entities (reservations, VA). Social justice and policy issues related to managing the health of people with chronic conditions across the lifespan are considered.

**DPT 7443. Musculoskeletal Upper Quarter I. (3 Credits)**

This course first introduces students to patient management principles for individuals with musculoskeletal dysfunction. A focus on anatomy, biomechanics, movement dysfunction, and common conditions of the cervical and thoracic spine, craniofacial, and shoulder regions. Diagnostic testing, imaging, and pharmacological / surgical management are integrated with physical therapy patient management, including screening, examination, evaluation, diagnosis and prognosis, plan of care, and interventions. Students gain skills in clinical reasoning and psychomotor skills as applied to patient management across acute, sub-acute, and chronic stages of injury and healing.

**DPT 7444. Musculoskeletal Upper Quarter II. (3 Credits)**

This course focuses on anatomy, biomechanics, movement dysfunction, and common conditions of the elbow, wrist, and hand regions. Diagnostic testing, imaging, and pharmacological / surgical management are integrated with patient management, including screening, examination, evaluation, diagnosis and prognosis, plan of care, and interventions. Students gain skills in clinical reasoning and psychomotor skills as applied to patient management across acute, sub-acute, and chronic stages of injury and healing. Lifespan perspectives unique to management of pediatric and geriatric patients are presented. The course concludes with a series of cases that tie together all aspects of patient management for the entire upper quarter.

**DPT 7445. Musculoskeletal Lower Quarter I. (3 Credits)**

A focus on anatomy, biomechanics, movement dysfunction, and common conditions of the thoracic, lumbar, and sacral spine along with pelvic floor and hip regions. Diagnostic testing, imaging, and pharmacological / surgical management are integrated with physical therapy patient management, including screening, examination, evaluation, diagnosis and prognosis, plan of care, and interventions. Students gain skills in clinical reasoning and psychomotor skills as applied to patient management across acute, sub-acute, and chronic stages of injury and healing.

**DPT 7552. Foundation Science II: Pathophysiology. (2 Credits)**

Students analyze the impact of immobility on all body structures and physiological systems and explore the growing body of knowledge of exercise and genetics. Pain science theory is introduced through the foundations of neuroscience.

**DPT 7562. Exercise and Movement Science. (3 Credits)**

Students gain knowledge and application of exercise as a critical PT intervention to enhance movement and function. This course focuses on addressing cardiovascular and pulmonary endurance, muscle endurance, strength / power training across the lifespan. Students learn to assess cardiovascular risk factors and to monitor physiological responses of the cardiovascular and pulmonary systems to exercise. Movement science principles applied to analyze movement and hypothesize impairments and restrictions in activities and participation.

**DPT 7563. Treating Impairments of Body Structure/Function. (2 Credits)**

This course builds skills needed to select and perform interventions addressing pain, weakness, and loss of joint/muscle mobility across the lifespan. Interventions include strengthening, joint mobilization, stretching, and physical agents across the lifespan.

**DPT 7564. Treating Activity Restrictions. (2 Credits)**

This course builds skills needed to select and perform interventions addressing activity restrictions related to bed mobility, sit-stand and transfers, gait, ADL's, and IADL's. Emphasis is on principles of motor learning including task-specific practice, types of instruction, practice schedules, variability of practice, and the use of auditory, visual, and tactile feedback.

**DPT 7800. Clinical Education I. (4 Credits)**

This is a full-time, eight-week clinical education experience supervised by a licensed physical therapist in a clinical setting which focuses on the basic musculoskeletal, cardiopulmonary, and integumentary diagnoses and practice patterns. Clinical interpretation and analysis of the interprofessional healthcare team are explored. Students gain experience in all aspects of patient management including examination, evaluation, diagnosis, prognoses and plan of care. Students are expected to practice with integrity, compassion and demonstrating moral agency in all areas of practice.

**DPT 8224. Leadership of Self, Teams, and Organizations. (3 Credits)**

To begin their journey of leadership development, students navigate presentations, self-assessment tools, and engage in interactive sessions with peers and faculty to identify their personal leadership style and personal leadership plan. Activities include promoting mindfulness needed to support resilience and change. Students are challenged to seek feedback from others and to identify implicit biases and motivators impacting professional growth. Leadership skills needed to lead teams, organizations, and collaborate across organizations requires advanced skills and self-reflection. Students apply leadership principles to team and organizational behavior and policy analysis with an emphasis on influencing change and facilitating social justice. Unique skills sets required for rural, urban, and other distinct communities are discussed.

**DPT 8225. Leadership in Practice Management. (3 Credits)**

Leadership, practice management, and continuous quality improvement are addressed through case scenarios, directed readings, and active learning assignments related to human resource and operations management, fiscal management and accountability, billing, coding, payer systems, project management, marketing management, and information technology management. Students gain leadership skills needed to address social inequalities and to become change agents in the community, profession, and society.

**DPT 8334. Community Needs Assessment and Program Planning. (3 Credits)**

Students explore community health assessment and project planning, including the role of physical therapists in increasing physical activity/ exercise, decreasing obesity, minimizing work-related injury, and fall prevention. Through dynamic presentations and active learning assignments, students learn the steps of a thorough needs assessment prior to planning health programs and interventions. Student groups identify a community health issue related to a primary, secondary, or tertiary prevention problem, conduct a basic needs assessment, and based on the findings of the need's assessment develop a community program along with the plan for program evaluation.

**DPT 8446. Musculoskeletal Lower Quarter II. (3 Credits)**

This course focuses on anatomy, biomechanics, movement dysfunction and common conditions of the knee, ankle, and foot regions. Diagnostic testing, imaging, and pharmacological / surgical management are integrated with patient management, including screening, examination, evaluation, diagnosis and prognosis, plan of care, and interventions. Students gain skills in clinical reasoning and psychomotor skills as applied to patient management across acute, sub-acute, and chronic stages of injury and healing. Lifespan perspectives unique to management of pediatric and geriatric patients are presented. The course concludes with a series of cases that tie together all aspects of patient management for the entire lower quarter.

**DPT 8451. Cardiovascular and Pulmonary I. (3 Credits)**

Students relate the anatomical structure and physiological function of the cardiovascular and pulmonary systems to common cardiovascular and pulmonary disorders and their impact on human movement across the lifespan. Related cardiovascular and pulmonary diagnostic testing, imaging, and pharmacological/ surgical management across the lifespan are discussed. Students learn both clinical reasoning and psychomotor skills related to cardiovascular and pulmonary screening, history and review of systems; assessment of HR, BP, RR, breath sounds, hearts sounds, as well as the ability to differentiate normal from abnormal EKGs. Students explore continuum of acute to chronic disease, healthcare settings, and the spectrum of practice from health through palliative care related to cardiovascular and pulmonary systems.

**DPT 8452. Cardiovascular and Pulmonary II. (3 Credits)**

Students advance their clinical reasoning and clinical skills in managing patients with cardiovascular and pulmonary dysfunction. Students focus on PT examination, evaluation (diagnosis and prognosis), interventions, and outcomes for patients with cardiovascular and pulmonary disorders across the lifespan and health-care settings. Students consider the range of practice from prevention through palliative care, from acute to chronic care, and relevant fiscal and regulatory resources or constraints. Cardiopulmonary clinical practice guidelines, available evidence, and interprofessional practice opportunities are incorporated.



**DPT 8453. Integumentary, Lymphatic, and Post Amputation. (4 Credits)**

Students relate anatomical structure and physiological function of the integumentary, lymphatic, and endocrine systems to their impact on human movement and function. Etiology of limb length (amputation) disorders and resulting changes to biomechanics/kinesiology and function are also addressed. Students apply clinical reasoning and psychomotor skills to engage in patient management of complex system involvement, including patient history, review of systems, examination, evaluation, interventions, and outcomes of patient management. Relevant diagnostic testing, imaging, and pharmacological/ surgical management, and prevention are discussed. Considerations for managing patients across the lifespan as well as across the spectrum of health care settings, acute-chronic conditions, and simple to complex (multi-system) involvement utilizing clinical practice guidelines and emerging evidence is applied to patient management decision making.

**DPT 8462. Neuromuscular I. (4 Credits)**

Students relate neuroanatomy and neurophysiology to existing knowledge on normal human movement, development, and function. Using patient cases across the lifespan, students explore the impact of peripheral and central nervous system disorders on motor control and function and on neuromotor development. Related diagnostic testing, imaging, and pharmacological/ surgical management are discussed. Students engage in movement analysis of patients with a variety of neurologic disorders to hypothesize underlying impairments, activity restrictions and participation restrictions across the lifespan.

**DPT 8463. Neuromuscular II. (4 Credits)**

Students learn clinical reasoning, practice guidelines, and psychomotor skills related to patients with neuromuscular dysfunction, including history and review of systems, examination, evaluation, interventions, and outcomes. This course is organized by types of movement problems, including impaired strength and motor control, impaired balance and coordination, abnormal functional mobility and gait, and loss of life roles needed for self-care, play, and work. Progression across the continuum of care and managing varying levels of acuity is emphasized, as is practice across healthcare settings. Lab sessions include coordination and collaboration with interprofessional teams and working with assistive/ adaptive/orthotic devices. Clinical practice guidelines and emerging evidence in neurologic rehab is applied to patient management decision making.

**DPT 8572. Participation in Life Roles & Sport. (2 Credits)**

Students select appropriate participation standardized tests and interventions, including modifying activities or environments to assess and treat patient/client's ability to participate in life roles (work, play, sport, domestic, education, and social). Students use reasoning skills to write a letter of advocate for patients requiring specific equipment or services as well as to progress a plan of care in order to return a patient to sport using evidence-based interventions and a collaborative team approach.

**DPT 8573. Rehab and Cancer. (2 Credits)**

Students explore patient/management of persons with cancer, including unique nutritional and exercise needs, precautions and contraindications, as well as the value of interprofessional teams collaborating to enhance function and quality of life for persons with cancer across the lifespan.

**DPT 8574. Progression of Care. (3 Credits)**

Patient cases across multiple settings drive student learning regarding providing PT services across all healthcare settings, including the ICU, acute care, sub-acute and rehabilitation hospitals, skilled nursing and assisted living facilities, and home care as well as the use of telehealth. Students use clinical reasoning to adapt patient care skills to different settings and with patients across the lifespan and with varying degrees of mobility and independence, as well as progression in documentation skills using electronic medical records. Students apply interventions from Cardio-Pulmonary I-II in context of various settings and with a variety of teams.

**DPT 8575. Managing Complex Patients. (2 Credits)**

Students apply clinical reasoning, patient management skills, delegation/ supervision skills, time management, and interprofessional practice skills to work with patients with highly complex medical conditions. Emphasis is also on accurate, thorough, and concise documentation of patient care regardless of patient complexity, setting, and patient age. Students investigate community resources designed to support the management of complex cases at home or in residential living centers across the lifespan and diagnostic conditions.

**DPT 8880. Clinical Education II. (4 Credits)**

This is a full-time, eight-week clinical education experience supervised by a licensed physical therapist in a setting appropriate to allow synthesis of the musculoskeletal, cardiopulmonary, and integumentary practice patterns. Experience with patient/client education, neuromuscular practice patterns, and practice management are also explored. Students participate in all aspects of patient management including examination, evaluation, diagnosis, prognoses and plan of care, as well as interventions and outcome assessment. Students utilize electronic documentation, improve time management, engage in delegation/ supervision, and demonstrate the ability to work as a member of an interprofessional teams. Students are expected to practice with integrity, compassion and demonstrating moral agency in all areas of practice.

**DPT 8890. Clinical Experience III. (8 Credits)**

This is a full-time, sixteen-week clinical education experience supervised by a licensed physical therapist in a setting appropriate to allow synthesis of the neuromuscular, musculoskeletal, cardiopulmonary, and integumentary practice patterns. Experiences across a variety of health care settings including in-patient environments (acute, sub-acute, rehab, or skilled nursing) and out-patient settings (hospital out-patient, free-standing, and specialty clinics) and/or home health. Students are expected to become more independent with complex cases (management including examination, evaluation, diagnosis, prognoses and plan of care, as well as interventions and outcome assessment), document effectively, demonstrate accountability and effective time management, engage in delegation/supervision, and demonstrate the ability to work effectively with interprofessional teams. Students are expected to practice with integrity, internalizing the core values of the profession and demonstrating moral agency in all areas of practice. During clinical experiences, students apply their knowledge of management, finance, payer systems, regulatory requirements, and quality management to real-world scenarios in a variety of settings. As master adaptive learners, students will continually reassess their gaps in knowledge and seek ways to address the gaps.