

## **Course List**

### Summer I

DPTE 701 Functional Anatomy  
DPTE 710 Foundational Concepts of the PT Profession  
DPTE 785 Gross Anatomy

### Fall I

DPTE 702 Biomechanics  
DPTE 705 Research I: Foundations of Clinical Research  
DPTE 715 Neuroscience  
DPTE 725 Pharmacology & Physiology  
DPTE 735 Examination Skills for PTs

### Spring I

DPTE 716 Motor Control, Learning, & Planning  
DPTE 720 Patient Care I  
DPTE 730 Health Promotion & Human Performance  
DPTE 740 Growth & Development  
DPTE 801 Orthopedic PT I  
DPTE 815 Neurorehab Across the Lifespan I

### Summer II

DPTE 830 Therapeutic Interventions  
DPTE 845 Biophysical Agents  
DPTE 855 Geriatrics  
DPTE 860 Disabilities Management  
DPTE 875 Differential Diagnosis I

### Fall II

DPTE 901 Orthopedic PT II  
DPTE 915 Neurorehab Across the Lifespan II  
DPTE 870 Service Learning  
DPTE 805 Research II: Research Techniques  
HCMT 621 Navigating the Health Care System

### Spring II

DPTE 820 Patient Care II  
XXXX Electives (students must enroll in 1 course)  
DPTE 880 Advanced Concepts in Spine and Manual Therapy  
HCMT 625 Healthcare Project Management  
DPTE 905 Research III  
DPTE 975 Differential Diagnosis II  
DPTE 865 Cardiopulmonary PT  
DPTE 890 Pain Mechanisms and Management

### Summer III

DPTE 950 Clinical Experience in PT I  
DPTE 951 Clinical Experience in PT II

### Fall III

DPTE 952 Clinical Experience in PT III  
DPTE 995 Diakonia: Commission for Service

## **Course Descriptions**

### *HCMT 621 Navigating the Healthcare System*

(3 hours) Prerequisites: None. This course includes a review of the current healthcare system and how it relates to management and administration. Students will learn about various healthcare topics including healthcare structure, health insurance, comparative healthcare systems, and the future of healthcare.

### *HCMT 625 Healthcare Project Management (elective)*

(3 hours) Prerequisites: None. The course explores project management principles utilized in the healthcare system. Students will learn and apply the planning, implementation, and management processes of healthcare projects. Additional topics include marketing of healthcare projects and the role of a project manager.

### *DPTE 701 Functional Anatomy*

(3 hours) Prerequisites: Enrolled in the Charleston Southern University DPT Program. This course serves as an introductory course for analysis of anatomy as it relates to the physical therapy profession. Content learned in this course will contribute to a physical therapy student's mastery and application of anatomical concepts in analyzing human movement. This course is designed to be taught concurrently with Gross Anatomy and serve as the applied complement of anatomy. Topics that will be covered include physical examination and assessment including but not limited to palpation, range of motion, gait, functional movements, arthrokinematics, osteokinematics, and muscle mechanics.

### *DPTE 702 Biomechanics*

(3 hours) Prerequisites: Successful completion of previous Summer term, Year I, CSU PT classes. This course is an overview of biomechanics from a clinical perspective. The principles and theories of the biomechanics of human motion are presented to develop analytical skills necessary to assess normal and abnormal movement. Introductory laboratory activities are used to develop these skills and provide clinical applications of the didactic course content.

### *DPTE 705 Research I: Foundations of Clinical Research*

(3 hours) Prerequisites: Successful completion of previous Summer term, Year I, CSU PT classes. This foundations course is intended to provide the learner the opportunity to develop skills and knowledge related to scientific methods, research design, and basic statistics that are pervasive in physical therapy literature. The course is also intended to prepare DPT students with the skills to obtain, analyze, synthesize and integrate trustworthy evidence into clinical practice as educated consumers. Emphasis will be placed on instruction in these research and appraisal skills in the context of contemporary physical therapy literature. The interrelationship of best available research findings with evidence-based practice strategies will be emphasized.

### *DPTE 710 Foundational Concepts of the PT Profession*

(3 hours) Prerequisites: Enrolled in the Charleston Southern University DPT Program. This course provides students with foundational information and skills essential to the practice of physical therapy. Three major themes are covered: 1) Program, institutional, and healthcare policies and procedures including professionalism, emergency procedures, and HIPAA regulations; 2) Concepts inherent to the profession including its history, APTA core values, and Code of Ethics; and 3) The relationship of how cultural competency and psychosocial patient characteristics impact the practice of physical therapy. CPR will be taught as a requisite for this course. Strategies for effective learning, interpersonal communication, and team building are covered throughout the term.

*DPTE 715 Neuroscience*

(4 hours) Prerequisites: Successful completion of previous Summer term, Year I, CSU PT classes. This course is designed to prepare the physical therapy student to apply basic neuroanatomy and neurophysiology principles to patient populations. Emphasis will be placed on the structural and functional organization of the nervous system, particularly that of the central nervous system. From this understanding, theories of motor control and movement science will be addressed. Clinical correlations relevant to the practice of physical therapy will be emphasized.

*DPTE 716 Motor Control, Learning, & Planning*

(2 hours) Prerequisites: Successful completion of previous Fall term, Year I, CSU PT classes. The student learns motor control, motor learning, motor planning, and neuroplasticity and links them to fundamental core concepts of neuroanatomy from Neuroscience DPTE 715. The course provides experiences in clinical applications of these concepts that explains how contributing neuroanatomical systems communicate via the central and peripheral nervous system to produce and control of human movement.

*DPTE 720 Patient Care I*

(3 hours) Prerequisites: Successful completion of previous Fall term, Year I, CSU PT classes. This course is the first of two preparatory courses to prepare students to begin their clinical coursework and facilitate understanding of the physical therapy profession and its integration into the current health care system. Students will be exposed to some foundational elements of physical therapy in the acute care setting, documentation and communication standards for the physical therapy professional, and learn practical skills and applications related to manual soft tissue techniques and concepts. Finally, as part of the curriculum's Integrated Clinical Experiences, students will observe and participate in patient care in variety of settings across multiple disciplines.

*DPTE 725 Pharmacology & Physiology*

(3 hours) Prerequisites: Successful completion of previous Summer term, Year I, CSU PT classes. This course will introduce the biological underpinnings of human disease from the molecular, cellular, tissue, and organ-system perspectives. Both the structural and functional changes that cause or/are caused by disease processes will be emphasized. Additionally, students will be introduced to principles of pharmacology, including pharmacokinetics, pharmacodynamics, and classifications of drugs used in the treatment of disease and. Implications of pharmacological interventions will be addressed, including recognition of adverse drug effects in patients. Clinical correlations relevant to the practice of physical therapy will be emphasized.

*DPTE 730 Health Promotion & Human Performance*

(4 hours) Prerequisites: Successful completion of previous Fall term, Year I, CSU PT classes. This course will prepare the student to perform a health risk assessment, fitness and exercise evaluation, and body composition analysis and interpret the results for the well individual and special populations with and without impairments. This course will involve the student in prevention; in promoting health, wellness, and fitness; and in performing screening activities with young and elderly individuals. Basic nutrition needs for health and wellness will be addressed.

### *DPTE 735 Examination Skills for PTs*

(3 hours) Prerequisites: Successful completion of previous Summer term, Year I, CSU PT classes. This course is designed to teach students examination skills frequently used by physical therapists. The content includes education in obtaining a subjective patient/client history, administering outcome questionnaires, assessing balance and posture, and performing upper and lower quarter screening examinations. The course concludes with analyzing and educating the patient/client on positioning, transfers, and ambulation with an appropriate assistive device.

### *DPTE 740 Growth & Development*

(2 hours) Prerequisites: Successful completion of previous Fall term, Year I, CSU PT classes. This course is designed so that upon completion the students can practically implement the APTA's Mission, Vision, Core Values and Code of Ethics as well as the ICF framework and patient management model to care for pediatric patients. Upon completion of this course the students will be able to assess a child for normal/abnormal development, utilize pediatric outcome measures and create components of a treatment plan to address impairments and functional limitations associated with conditions frequently encountered by physical therapists. Upon completion of this course students will demonstrate competency in age-appropriate, family-centered evaluation and interventions techniques for pediatric patients.

### *DPTE 785 Gross Anatomy*

(4 hours) Prerequisites: Enrolled in the Charleston Southern University DPT Program. This course provides an overview of human anatomy through guided human cadaver dissection of the musculoskeletal and peripheral nervous system to students in the Physical Therapy Program. Permission of course director and program director required.

### *DPTE 801 Orthopedic PT I*

(4 hours) Prerequisites: Successful completion of previous Fall term, Year I, CSU PT classes. This course serves to introduce and expand musculoskeletal topics for first year DPT students. These topics will predominantly focus on screening, examination, evaluation, and clinical decision making in patients with musculoskeletal impairments. Additional topics include musculoskeletal impairments associated with common orthopedic pathologies, functional outcome measures, and patient centered goals. This course utilizes foundational concepts from both gross and functional anatomy and student mastery of previous coursework is expected.

### *DPTE 805 Research II: Research Techniques*

(3 hours) Prerequisites: Successful completion of previous Summer term, Year II, CSU PT classes. Participation in experiences intended to assist the student develop a greater understanding of the process used to formulate evidence supporting physical therapy practice. Students will search and critique the literature concerning a research problem, identify and practice methodology suitable to conduct an experiment or gather information to address the research problem, and consider translation of the results to clinical practice under supervision of the faculty primary investigator.

### *DPTE 815 Neurorehab Across the Lifespan I*

(4 hours) Prerequisites: Successful completion of previous Fall term, Year I, CSU PT classes. **Didactic:** Application and integration of knowledge acquired in neuroscience and motor control, learning and planning as well as of neuroplasticity will be synthesized to determine how pathophysiology contributes to subsequent impairment resulting in movement dysfunction. This

course will include acquired brain injury diagnoses predominantly seen throughout the lifespan that are not chronic or degenerative in nature. *Laboratory Component:* The student learns how to evaluate, treat and manage individuals with neurologic impairment from pediatrics to adult as a result of acquired brain injury that is not primarily degenerative in nature. A systems approach using motor development theory, task analysis and evidence-based practice will be the foundations for developing proficiency in executing evaluation, treatment and management of impairments. Various treatment interventions previously learned will be modified and applied to this diagnostic group of acquired brain injury based on impairment. A case-study format using ICF and patient management models will be the educational tools to deliver course content. Assessment of skill proficiency will be determined by practical experiences.

#### *DPTE 820 Patient Care II*

(3 hours) Prerequisites: Successful completion of previous Fall term, Year II, CSU PT classes. This course is the second of two preparatory courses to prepare students to begin full-time clinical work and facilitate their understanding of the physical therapy profession and its integration into the current health care system. Through participation in an integrated clinical experience, students will work in an outpatient clinical setting under the supervision of a licensed physical therapist as their clinical instructor. Students will also have the opportunity to collaborate with PTA students to progress their ability to integrate into a physical therapy care team, reflect on current legal issues facing the field of physical therapy today, and be exposed to some foundational elements of physical therapy as it pertains to wound care principles and the integration of health informatics into clinical practice.

#### *DPTE 830 Therapeutic Interventions*

(3 hours) Prerequisites: Successful completion of previous Spring term, Year I, CSU PT classes. This course is designed to introduce and expand a wide array of therapeutic interventions including targeted exercises, rehabilitation procedures, gait retraining, post-surgical protocols, and joint mobilizations. This course is a continuation of the musculoskeletal curriculum building on the foundations of Functional Anatomy and Musculoskeletal Physical Therapy I. Additionally, this course will incorporate neurological concepts of rehabilitation by building on Neuroscience, Motor Control and Neurological Conditions across the Lifespan courses. Topics covered in this class will predominantly be focused on providing safe and effective interventions in patients with musculoskeletal and neurological impairments. Students will be expected to synthesize previous mastered examination concepts to design, implement and teach a variety of rehabilitation protocols to improve limitations and activities in patients.

#### *DPTE 845 Biophysical Agents*

(3 hours) Prerequisites: Successful completion of previous Spring term, Year I, CSU PT classes. This course provides instruction on the physiological effects, mechanical operation, and appropriate application of superficial and deep thermal agents; hydrotherapy; compression; traction; electrical stimulation; biofeedback; and other emerging technologies.

*DPTE 855 Geriatrics*

(3 hours) Prerequisites: Successful completion of previous Spring term, Year I, CSU PT classes. This course will allow the student to understand the principles for physical therapy management when treating older adults. Fundamentals associated with biological, psychosocial, and emotional, and changes that occur with aging, as well as cultural and socioeconomic influences on the older adult population. This course will prepare students to apply the unique aspects of geriatric care in various clinical settings.

*DPTE 860 Disabilities Management*

(2 hours) Prerequisites: Successful completion of previous Spring term, Year I, CSU PT classes. The student learns how to prescribe, recommend, and manage functional support systems that enhances client independence with functional mobility. Using a systems approach, the student identifies and prioritizes impairments, takes into consideration client goals and social determinants of health and utilizes evidence-based practice to assure that the optimal functional support system meets the needs of the client. Interprofessional collaboration will be introduced. Course content will cover rehabilitative functional supports for clients with various neurological, genetic and/or orthopedic disorders. In addition, students will be introduced to concepts related to accessibility and ergonomic modifications. Topics covered regarding orthotic, prosthetic, assistive and mobility interventions will require application of previous acquired knowledge in related content areas of pediatric and adults.

*DPTE 865 Cardiopulmonary PT*

(4 hours) Prerequisites: Successful completion of previous Fall term, Year II, CSU PT classes. This course will prepare the student to perform specialized evaluation procedures, including vital signs, auscultation, and cardiovascular and pulmonary assessments, as appropriate for program planning in physical therapy. This course will prepare the student to treat the pediatric, adult, and geriatric patient with cardiovascular and/or pulmonary dysfunction in all settings ranging from acute care, to rehab, to home health, to long term care.

*DPTE 870 Service Learning*

(2 hours) Prerequisites: Successful completion of previous Summer term, Year II, CSU PT classes. This course is an overview of service-learning theory as presented through the eight core values set forth by the American Physical Therapy Association (APTA) and the principles of strategic planning and management. This course will ultimately examine topics through the lens of a Christian worldview as students explore ways to apply their skills and callings to the service of others. During this course students will collaborate in the planning of a service project involving skills and training within the scope of physical therapy practice for the health, wellness, and/or betterment of individuals, groups, and communities, particularly among underserved populations. This course will culminate in the selection of one project to be completed by the CSU DPT program and its students, faculty, and staff prior to the current cohort beginning full time clinical experiences, with the organization and implementation of this project being led by students in the current cohort.

*DPTE 875 Differential Diagnosis I*

(2 hours) Prerequisites: Successful completion of previous Spring term, Year I, CSU PT classes. This course is designed to assess student comprehension of all materials covered during the first year of the DPT curriculum. This first course, in a two-part series, provides strategies to identify a physical therapy diagnosis and determine whether the client needs to be referred to another healthcare provider for further consultation. Students will integrate previous course content and contemporary evidence to effectively examine patients across the lifespan commonly seen in physical therapy practice. The course concludes with a comprehensive written and practical examination, each including concepts spanning the entire first year of the curriculum.

*DPTE 880 Advanced Concepts in Spine and Manual Therapy (elective)*

(3 hours) Prerequisites: Successful completion of previous Fall term, Year II, CSU PT classes. Theories and techniques of spinal and extremity mobilizations, high velocity thrusts, and functional exercise interventions. Evidence-based emphasis on spinal impairments and temporomandibular dysfunction.

*DPTE 890 Pain Mechanisms and Management*

(2 hours) Prerequisites: Successful completion of previous Fall term, Year II, CSU PT classes. This course will emphasize the advances in pain science and therapeutic interventions for pain. The information presented will cover the multidimensional nature of pain, pain assessments and screening tools, psychosocial risk factors, and multidisciplinary management of pain. Course will use interprofessional learning experiences through panel discussions, to understand and explore unique contributions of the interprofessional team in pain management. Case studies and laboratory exercises relevant to treatment of patients with pain conditions will be emphasized.

*DPTE 901 Orthopedic PT II*

(5 hours) Prerequisites: Successful completion of previous Summer term, Year II, CSU PT classes. This course is a continuation of the musculoskeletal curriculum building on the foundations of Functional Anatomy, Musculoskeletal Physical Therapy I, and Therapeutic Interventions. This course is designed to emphasize clinical reasoning skills to enhance physical therapy practice based on current best practice knowledge. Students will be expected differentially diagnose a variety of musculoskeletal pathologies and create a full plan of care for targeted rehabilitation in the physical therapy setting and create plans of care that transition beyond the clinical setting. Students will be expected to expand musculoskeletal interventions to include manipulation, high-velocity low-amplitude thrust, and dry needling techniques to best address impairments across a spectrum of patients with a variety of musculoskeletal and non-musculoskeletal based co-morbidities.

*DPTE 905 Research III: Dissemination of Research*

(3 hours) Prerequisites: Successful completion of previous Fall term, Year II, CSU PT classes. Participation in experiences intended to assist the student draw conclusions from systematically acquired data intended to answer a research question relevant to contemporary physical therapy practice. Students will develop data analysis and interpretation skills, ascertain the clinical relevance of their findings, identify barriers to translation of the results to clinical practice, and disseminate their work in a public forum under supervision of the faculty primary investigator.

### *DPTE 915 Neurorehab Across the Lifespan II*

(5 hours) Prerequisites: Successful completion of previous Summer term, Year II, CSU PT classes. *Didactic:* Application and integration of knowledge acquired in neuroscience and motor control, learning and planning as well as of neuroplasticity will be synthesized to determine how pathophysiology contributes to subsequent impairment resulting in movement dysfunction. This course will include neurologic diagnoses and impairments not covered in NAL I, primarily consisting of vestibular disorders, spinal cord injury and degenerative and chronic diseases of upper and lower motor neuron origin. *Laboratory Component:* The student learns how to evaluate, treat and manage individuals with neurologic impairment from pediatrics to adult, but diagnoses predominantly seen in adults that are degenerative and chronic in nature. A systems approach using motor development theory, task analysis and evidence-based practice will be the foundations for developing proficiency in executing evaluation, treatment and management of impairments. Various treatment interventions previously learned will be modified and applied to this diagnostic group of acquired brain and spinal cord injury based on impairment. A case-study format using ICF and patient management models will be the educational tools to deliver course content. Assessment of skill proficiency will be determined by practical experiences.

### *DPTE 950 Clinical Experience in PT I*

(10 hours) Prerequisites: Successful completion of previous Spring term, Year II, CSU PT classes. DPT faculty approval that student is prepared for the full-time clinical portion of curriculum. A 10-week full-time clinical education experience to develop physical therapy management skills of patients in one of three possible settings: inpatient, outpatient or specialized clinical setting of the student's choosing.

### *DPTE 951 Clinical Experience in PT II*

(10 hours) Prerequisites: Successful completion of previous Spring term, Year II, CSU PT classes. DPT faculty approval that student is prepared for the full-time clinical portion of curriculum. A 10-week full-time clinical education experience to develop physical therapy management skills of patients in one of three possible settings: inpatient, outpatient or specialized clinical setting of the student's choosing.

### *DPTE 952 Clinical Experience in PT III*

(10 hours) Prerequisites: Successful completion of previous Summer term, Year III, CSU PT classes, including DPTE 951. A 10-week full-time clinical education experience to develop physical therapy management skills of patients in one of three possible settings: inpatient, outpatient or specialized clinical setting of the student's choosing.

### *DPTE 975 Differential Diagnosis II*

(3 hours) Prerequisites: Successful completion of previous Fall term, Year II, CSU PT classes. This course is designed to assess student comprehension of all materials covered throughout the entire didactic DPT curriculum. This second course, in a two-part series, provides advanced examination strategies for specialty areas including pelvic health, concussion management, and vestibular impairment. Students will integrate previous course content and contemporary evidence to effectively examine and treat patients across the lifespan commonly seen in physical therapy practice. The course also includes guided review of previously covered content material and study strategies for the National Physical Therapist Examination (NPTE). The course concludes with a comprehensive practical examination, including concepts spanning the entire didactic DPT curriculum.

*DPTE 995 Diakonia: Commission for Service*

(1 hour) Prerequisites: Successful completion of previous Summer, Year III, CSU DPT classes. This 1-week summative course is a culmination of all didactic learning and clinical education experiences throughout the DPT curriculum. Diakonia is the Greek word for Deacon, translated ministry or service. Students will reflect on how they have and will continue to exemplify Christian principles through evidence-based clinical care while serving their community and profession. The threshold for success, in this course, will be completion of a standardized practice examination to prepare students for the NPTE. In addition, students will share a “game changing” patient to whom they provided care during one of their clinical experiences. Finally, students will provide the program and university feedback for quality improvement for future DPT students.