# Physical Therapy

http://www.uvm.edu/~cnhs/rms/

## Overview

The UVM Doctor of Physical Therapy (DPT) program's mission is to prepare graduates to lead and collaborate in the quest of promoting the health of individuals, communities and society through movement and exercise in order to optimize function, activity, and participation across environments. UVM graduates provide ethical, evidence-based, client-centered services in a culturally sensitive manner as they serve society to enhance quality of life. Graduates are decision-makers in the primary care team who have a clear understanding of the importance of lifelong learning that will support their client, patient, and professional needs. Faculty model and support student learning of these expected educational outcomes.

The program's vision is to be recognized for leadership in its contribution to the creation, advancement, and dissemination of translational research while striving toward excellence to educate DPT scholars who collaborate to "transform society by optimizing movement," for the promotion of individual and population health of our communities and society.

## Degrees

- Physical Therapy D.P.T.

## Faculty

- **Escrópizo, Reuben Samsuya**: Clinical Associate Professor, Department of Rehabilitation and Movement Science; DPT, Des Moines University
- **Failla, Matthew**: Assistant Professor, Department of Rehabilitation and Movement Science; PHD, University of Delaware
- **Mohapatra, Sambit**: Assistant Professor, Department of Rehabilitation and Movement Science; PHD, University of Illinois, Chicago
- **Peters, Denise**: Assistant Professor, Department of Rehabilitation and Movement Science; PHD, DPT, University of South Carolina
- **Sargent, Elizabeth**: Clinical Assistant Professor, Department of Rehabilitation and Movement Science; SCD, Texas Tech University
- **Tschoepe, Barbara A**: Clinical Professor, Department of Rehabilitation and Movement Science; PHD, University of Colorado
- **Westervelt, Karen C**: Clinical Assistant Professor, Department of Rehabilitation and Movement Science; PHD, Bond University-Robina, Queensland, Australia

## Doctor of Physical Therapy Courses

### DPT 401. Health Systems I - Policy. 2 Credits.

Explores U.S. health systems including the role of public and private sectors. Federal and state health policy and legislation are examined in relationship to physical therapy. Examine mechanisms of health care delivery in the US in comparison to international systems. Prerequisites: ANNB 301, DPT 410, DPT 450; Doctor of Physical Therapy student.

### DPT 402. Health Sys II-Quality Improvmt. 2 Credits.

Principles and practices of health care quality, quality improvement, and design and management of continual improvement activities. Topics will include quality measurement, management, and patient safety and their application in a variety of health care delivery settings and organizations. Prerequisites: DPT 421, DPT 423, DPT 426, DPT 452, DPT 492; Doctor of Physical Therapy student.

### DPT 403. Health Sys III-Business Mgt. 2 Credits.

Physical therapist practice management including evidence-based business and financial management, administration, and health informatics. Topics will incorporate business management from a physical therapist perspective, while expanding knowledge on health systems and the role of physical therapist in various practice settings. Prerequisites: DPT 402, DPT 422, DPT 424, DPT 427, DPT 460, DPT 493; Doctor of Physical Therapy student.

### DPT 404. Health Sys IV-Health Promotion. 3 Credits.

Fundamental concepts of health behavior, health education, and health promotion. Examination of health promotion programs at the level of policy, community, social spheres, and individuals. Experiential learning through health promotion in consideration of health behavior science and evidence-based practice. Prerequisites: DPT 402, DPT 422, DPT 424, DPT 427, DPT 460, DPT 493; Doctor of Physical Therapy student.

### DPT 405. Clinical Medicine. 4 Credits.

Foundational knowledge and application of pathophysiology as it pertains general health and systemic disease and its relationship to the role of the physical therapist as a movement system expert and a primary care practitioner. Prerequisites: ANNB 301, DPT 410, DPT 450; Doctor of Physical Therapy student.

### DPT 406. Exercise Science. 3 Credits.

Principles and applications of exercise assessment/testing, prescription and progression of the exercise program, including response to exercise. Course will emphasize understanding and application of the ACSM guidelines to exercise testing and prescription to individuals across the lifespan. Prerequisites: ANNB 301, DPT 410, DPT 450; Doctor of Physical Therapy student.
DPT 407. Pharmacology and Nutrition. 1 Credit.
Foundational knowledge of pharmacology and nutrition pertinent to physical therapist practice. Introduction to pharmacokinetics, pharmacodynamics, mechanisms of action of various drugs, and adverse reactions. Topics will also include nutrition in relation to primary, secondary, and tertiary prevention. Prerequisites: DPT 401, DPT 405, DPT 406, DPT 411, DPT 414, DPT 415; Doctor of Physical Therapy student.

DPT 408. Fundamentals Critical Inquiry. 3 Credits.
In-depth application of scientific inquiry inclusive of research design, statistical methods, research question development, critical appraisal and interpretation of evidence related to clinical practice are explored. Diagnostic, intervention, and prognostic studies are used in the application of the inquiry process. Prerequisites: DPT 401, DPT 405, DPT 406, DPT 411, DPT 414, DPT 415; Doctor of Physical Therapy student.

DPT 410. Fundamentals of Clinical Pract. 3 Credits.
Fundamental skills for physical therapists including patient/client management principles and practices such as examination techniques, history taking and interviewing skills, fundamental patient handling skills, clinical documentation and patient handling skills. Prerequisite: Doctor of Physical Therapy student.

DPT 411. Movement System I. 3 Credits.
Application of kinesiology and biomechanical principles to the analysis and management of human movement, posture, joint structure and function, and gait. Examination of mechanical properties of tissue with respect to lifespan, injury and healing, and principles of diagnostic imaging. Prerequisites: ANNB 301, DPT 410, DPT 450; Doctor of Physical Therapy student.

DPT 412. Movement System II. 4 Credits.
Motor control/learning and development across the lifespan, and a theoretical framework to develop intervention strategies. Principles of examination and evaluation of normal and dysfunctional movement will be discussed, including posture, gait, reach and grasp. Electrodiagnostic testing will also be covered. Prerequisites: DPT 401, DPT 405, DPT 406, DPT 411, DPT 414, DPT 415; Doctor of Physical Therapy student.

DPT 413. Movement System III. 4 Credits.
Utilize a movement systems approach to address the management of patients with multi-system involvement. Focus on the role of the physical therapist as primary care practitioner including emergency scenarios across the lifespan. Prerequisites: DPT 403, DPT 404, DPT 416, DPT 425, DPT 453, DPT 494; Doctor of Physical Therapy student.

DPT 414. Clinical Reasoning. 2 Credits.
Fundamental clinical-decision making frameworks in contemporary physical therapy practice, using the International Classification of Functioning, Disability and Health (ICF) and the Hypothesis Oriented Algorithm for Clinicians within the context of patient/client management model. Prerequisites: ANNB 301, DPT 410, DPT 450; Doctor of Physical Therapy student.

DPT 415. Psychsoc Aspcts Hlth Wellbeing. 3 Credits.
Psychosocial dimensions of health, illness, and disability across the lifespan and in consideration of diverse perspectives. Consideration of physical therapy implications for management of common mental health conditions and integrate patient and family-centered communication skills in simulated clinical situations. Prerequisites: ANNB 301, DPT 410, DPT 450; Doctor of Physical Therapy student.

DPT 416. Rehabilitation Technology. 3 Credits.
Evaluation, prescription, and patient/client education of rehabilitation technology used in physical therapy management of individuals to address or enhance movement across the lifespan. Topics will include prescription of and training with technology, devices, and environmental modifications. Prerequisites: DPT 402, DPT 422, DPT 424, DPT 427, DPT 460, DPT 493; Doctor of Physical Therapy student.

DPT 420. Musculoskeletal Management I. 4 Credits.
Screening, examination, evaluation, diagnosis, prognosis, management and outcomes for patients with musculoskeletal dysfunction of the extremities are covered. Topics include pathophysiology, risk appraisal, medical and surgical management, and biopsychosocial considerations in the management of these conditions across the lifespan. Prerequisites: DPT 401, DPT 405, DPT 406, DPT 411, DPT 414, DPT 415; Doctor of Physical Therapy student.

DPT 421. Musculoskeletal Management II. 4 Credits.
Screening, examination, evaluation, diagnosis, prognosis, management and outcomes for patients with musculoskeletal dysfunction of the spine are covered. Topics include pathophysiology, risk appraisal, medical and surgical management, and biopsychosocial considerations in the management of these conditions across the lifespan. Prerequisites: DPT 407, DPT 408, DPT 412, DPT 420, DPT 451, NSCI 302; Doctor of Physical Therapy student.

DPT 422. Musculoskeletal Management III. 3 Credits.
Screening, examination, evaluation, diagnosis, prognosis, intervention and outcomes for patients with complex musculoskeletal system dysfunction are covered. Case management as movement system experts of patient/client populations with complex primary or underlying conditions across the lifespan are explored. Prerequisites: DPT 421, DPT 423, DPT 426, DPT 452, DPT 492; Doctor of Physical Therapy student.

DPT 423. Neurological Management I. 4 Credits.
Focus on movement system dysfunction among individuals with neuromuscular conditions across the lifespan. Introduction to the principles and components of neurological examination and interventions emphasizing body structure/function with neuropathology considerations will be discussed. Prerequisites: DPT 407, DPT 408, DPT 412, DPT 420, DPT 451, NSCI 302; Doctor of Physical Therapy student.
DPT 424. Neurological Management II. 3 Credits.
Screening, examination, diagnosis, prognosis, management and outcomes for individuals with neurological impairments across the life span are covered. Evaluation and interventions of the movement system deficits considering pathophysiology and biopsychosocial framework will be addressed through case-based learning. Prerequisites: DPT 421, DPT 423, DPT 426, DPT 452, DPT 492; Doctor of Physical Therapy student.

DPT 425. Neurological Management III. 3 Credits.
Incorporate advanced clinical decision making in the plan of care of complex patients across the lifespan. Consideration of differential diagnosis, patient environment and case management will be discussed. Prevention, risk reduction strategies and continuum of care will be emphasized. Prerequisites: DPT 402, DPT 422, DPT 424, DPT 427, DPT 460, DPT 493; Doctor of Physical Therapy student.

DPT 426. Cardiovasc and Pulmonary Mgt. 3 Credits.
Screening, examination, evaluation, diagnosis, prognosis, management and outcomes for patients with cardiovascular and pulmonary conditions are covered. Topics include pathophysiology, risk appraisal, medical and surgical management, and biopsychosocial considerations in the management of these conditions across the lifespan. Prerequisites: DPT 407, DPT 408, DPT 412, DPT 420, DPT 451, NSCI 302; Doctor of Physical Therapy student.

DPT 427. Integmt, Endocrine, Multi Sys. 3 Credits.
Screening, examination, evaluation, diagnosis, prognosis, management and outcomes for patients with integumentary, endocrine, lymphatic, oncology, autoimmune and multisystem conditions are covered. Topics include pathophysiology, risk appraisal, medical and surgical management, and biopsychosocial considerations across the lifespan. Prerequisites: DPT 421, DPT 423, DPT 426, DPT 452, DPT 492; Doctor of Physical Therapy student.

DPT 450. Professional Form/Leadership I. 1 Credit.
Introduces professionalism, leadership, ethics, cultural competence, interprofessional education-practice and teaching-learning within the role of a doctoring professional, physical therapist contemporary practice and the healthcare environment. Prerequisite: Doctor of Physical Therapy student.

DPT 451. Prof Formation/Leadrshp II-ICE. 2 Credits.
Advanced study of professional formation and personal leadership development within the role of a doctoring professional. Focuses on role identity, professional practice expectations within ethical/legal standards of practice, teaching-learning, supervision/delegation, and introduces IPE role within Integrated Clinical Experiences (ICE). Prerequisites: DPT 401, DPT 405, DPT 406, DPT 411, DPT 414, DPT 415; Doctor of Physical Therapy student.

DPT 452. Prof Formatn/Leadrshp III-ICE. 2 Credits.
Advanced concepts of professional formation and personal leadership development within the role of a doctoring professional. Focuses on collaborative practice expectations within ethical/legal standards of practice, teaching-learning, supervision/delegation, and IPE. Prepares for assuming responsibilities within Integrated Clinical Experiences (ICE). Prerequisites: DPT 407, DPT 408, DPT 412, DPT 420, DPT 451, NSCI 302; Doctor of Physical Therapy student.

DPT 453. Prof Form/Leadrshp IV-ICE/IPE. 2 Credits.
Integrates professional formation and leadership development as a doctoring professional. Emphasizes interprofessional practice, education and support of health and well-being of others. Justifies ethical/legal decisions, social responsibility and advocacy. Expands Integrated Clinical Experiences (ICE) to community engagement and health promotion. Prerequisites: DPT 402, DPT 422, DPT 424, DPT 427, DPT 460, DPT 493; Doctor of Physical Therapy student.

DPT 460. Clinical Edu Experience I. 2 Credits.
Eight week supervised clinical experience in one of the following settings: outpatient, inpatient, or specialty clinics. Experience will include safe, effective, and comprehensive patient care. Students will demonstrate proficiency with skills applying foundational knowledge associated with patient care and management. Prerequisites: DPT 423, DPT 421, DPT 426, DPT 452, DPT 493, DPT 422, DPT 427, DPT 424, DPT 402, DPT 494; Doctor of Physical Therapy student.

DPT 461. Clinical Edu Experience II A. 2 Credits.
Six week supervised clinical experience in one of the following settings: outpatient, inpatient, or specialty clinics. Experience will include safe, effective, and comprehensive patient care. Students will demonstrate proficiency with skills applying foundational knowledge associated with patient care and management. Prerequisites: DPT 413; Doctor of Physical Therapy student.

DPT 462. Clinical Edu Experience II B. 2 Credits.
Six week supervised clinical experience in one of the following settings: outpatient, inpatient, or specialty clinics. Experience will include safe, effective, and comprehensive patient care. Students will demonstrate proficiency with skills applying foundational knowledge associated with patient care and management. Prerequisites: DPT 413, DPT 461; Doctor of Physical Therapy student.

DPT 463. Clinical Edu Experience III. 4 Credits.
Twelve week supervised clinical experience in one of the following settings: outpatient, inpatient, or specialty clinics. Experience will include safe, effective, and comprehensive patient care. Students will demonstrate proficiency with skills applying foundational knowledge associated with patient care and management. Prerequisites: DPT 462; Doctor of Physical Therapy student.
DPT 491. Dissertation Research. 1-18 Credits.

DPT 493. Doctoral Research Project I. 1 Credit.
Advanced research methods, including development of a research question (PICO), research design, proposal and IRB submission. Research questions might be systematic reviews, intervention, diagnostic, or prognostic studies and may utilize qualitative, quantitative, or mixed-methods design. Prerequisites: DPT 407, DPT 408, DPT 412, DPT 420, DPT 451, NSCI 302; Doctor of Physical Therapy student.

DPT 494. Doctoral Research Project II. 2 Credits.
Implementation of research proposal including data collection and analysis. Research question might be systematic reviews, intervention, diagnostic, or prognostic studies; and may utilize qualitative, quantitative, or mixed-methods design Prerequisites: DPT 421, DPT 423, DPT 426, DPT 452, DPT 493; Doctor of Physical Therapy student.

DPT 495. Doctoral Research Project III. 2 Credits.
Completion of research project inclusive of comprehensive analysis, synthesis of findings based on research question, implications to practice and dissemination of finding via manuscript and presentations. This project fulfills a component of the Doctoral Capstone project. Prerequisites: DPT 402, DPT 422, DPT 424, DPT 427, DPT 460, DPT 494; Doctor of Physical Therapy student.

DPT 496. Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.

Physical Therapy Courses

PT 303. Hlth Promotion & Disease Prvnt. 3 Credits.
Examines the value of and barriers to health promotion, health protection, and disease prevention, factors that influence personal health decisions, and preventive interventions. Prerequisite: Doctor of Physical Therapy students only.

PT 307. Pro Sem 2:Prep for PT Practice. 1 Credit.
Examines selected professional topics including the development of reflective practices and self-assessment skills. Health literacy is also explored in preparation for clinical practice. Prerequisites: PT 306 or Instructor permission; Doctor of Physical Therapy students and APTA members only.

PT 308. Pro Sem3: Ethics & Career Prep. 1 Credit.
Utilizes frameworks to analyze ethical issues in healthcare. Topics also include preparation for the national PT examination, professional license issues, continuing competence expectations and career planning. Prerequisites: PT 307 or Instructor permission; Doctor of Physical Therapy students and APTA members only.

PT 329. Know Imp Trans & Exch of EBPT. 1 Credit.
Develops skills to disseminate evidence from the scientific literature to facilitate knowledge transfer and exchange. The field of implementation science will also be introduced. Prerequisite: PT 322 or PT 328 or equivalent.

PT 330. Psychosocial Issues in Health. 3 Credits.
Psychosocial dimensions of health, illness and disability will be examined from lifespan and multicultural perspectives. Pre/co-requisites: Psychology course; enrolled as DPT student.

PT 331. Hlth Care Plcy & Pract Mgmt PT. 3 Credits.
Explores the structure and function of physical therapy practice management and health care policy and strategies for changing at state and national levels. Pre/co-requisite: Doctor of Physical Therapy student.

PT 344. Patient Mgmt Musculoskeletal 1. 8 Credits.
Lecture/Lab experiences in which students will apply fundamental biomechanical and kinesiology principles of the trunk, spine, and extremities. Prerequisites: PT 305, PT 318, PT 340; Doctor of Physical Therapy student.

PT 345. Patient Mgt-Neuromuscular 1. 6 Credits.
Lecture and laboratory experiences re evidence-based medical and physical therapy management of adults with neuromuscular conditions including stroke, multiple sclerosis, and spinal cord injury. Prerequisites: NSCI 302, PT 305, PT 319; Doctor of Physical Therapy student.

PT 346. Patient Mgt-Neuromuscular 2. 5 Credits.
Lecture and laboratory experiences re evidence-based medical and physical therapy management of children with neuromuscular conditions such as cerebral palsy and adults with developmental disabilities. Prerequisites: PT 345; Doctor of Physical Therapy student.

PT 347. Patient Mgt:Cardiopulmonary. 4 Credits.
Explores disease risk and prevention, as well as medical, surgical, pharmacological, psychological, and physical therapies in the management of individuals with cardiopulmonary related diseases. Prerequisites: PT 305, PT 340; Doctor of Physical Therapy student.

PT 348. Patient Mgt:Medical/Surgical. 4 Credits.
Explores medical, surgical, pharmacological, psychological, and physical therapies in the management of individuals with vascular, integumentary, lymphatic disorders and cancer. Pre/co-requisites: PT 305, PT 347; DPT student.

PT 349. Patient Mgt:Musculoskeletal 2. 4 Credits.
Lecture/lab applying foundational and advanced biomechanical, neurophysiological, kinesiological, and anatomical principles of the trunk, TMJ, spine, and extremities. Pre/co-requisites: PT 242; Enrolled as DPT student.

PT 360. Integrated Patient Mgmt Sem. 1 Credit.
Integrates information learned in prior clinical and foundational science courses, as well as contemporary research findings, into a comprehensive model of physical therapy for individuals with complex and multi-system conditions. Pre/co-requisites: DPT student standing; successful completion of all previous DPT courses.
PT 371. Clinical Internship 2. 5 Credits.
Full-time (ten weeks) Clinical Education Internship in various practice settings including out-patient, acute care, rehabilitation, home health, pediatric, long term care and specialty practices. Pre/co-requisite: Completion of all academic courses in DPT curriculum.

PT 372. Clinical Internship 3A. 2 Credits.
Full-time (four weeks) Clinical Education Internship in various practice settings including out-patient, acute care, rehabilitation, home health, pediatric, long term care and specialty practices. Pre/co-requisite: Completion of all academic courses in DPT curriculum.

PT 373. Clinical Internship 3B. 1 Credit.
Full-time (two weeks) Clinical Education Internship in various practice settings including out-patient, acute care, rehabilitation, home health, pediatric, long term care and specialty practices. Pre/co-requisite: Completion of all academic courses in DPT curriculum.

PT 374. Clinical Internship 3C. 2 Credits.
Full-time (four weeks) Clinical Education Internship in various practice settings including out-patient, acute care, rehabilitation, home health, pediatric, long term care and specialty practices. Pre/co-requisite: Completion of all academic courses in DPT curriculum.

PT 375. Clinical Internship 4. 5 Credits.
Full-time (ten weeks) Clinical Education Internship in various practice settings including out-patient, acute care, rehabilitation, home health, pediatric, long term care and specialty practices. Pre/co-requisite: Completion of all academic courses in DPT curriculum.

PT 422. Research Proj- Systematic Rvw. 2 Credits.
Develops advanced skills in critically analyzing research literature, including systematic reviews and clinical practice guidelines. Students analyze clinical data and apply results to clinical decision-making. Prerequisite: PT 420.

PT 428. Research Pro- Non systemtc rvw. 2 Credits.
Students work with faculty member to assist in research, applying previously learned skills in critical appraisal, library searches, research methods and writing. Prerequisite: PT 420. Co-requisite: Doctor of Physical Therapy student.

PT 496. Advanced Special Topics. 1-18 Credits.
See Schedule of Courses for specific title.