PhD in Health and Rehabilitation Sciences

Program Aim

To prepare Doctors of Philosophy (PhD) to be leaders as research scientists and educators in health and rehabilitation sciences.

PhD Program Overview

The field of rehabilitation sciences has become more exciting, complex, and demanding. Drexel's faculty members educate high quality rehabilitation research scientists with a background that is both broad in scope and rigorous in depth. Our graduates are prepared within the contextual paradigm of disability research to expand the body of knowledge in rehabilitation sciences through understanding the mechanisms of movement impairments, preventing and reducing movement dysfunctions and disability, and promoting health, physical performance, and participation in people across the lifespan.

Program Features

- 30 year history of PhD education
- Individualized plan of study aligned with current faculty research
- Flexible, in-depth research residency
- Excellent, efficient, accelerated, 48-quarter-credit curriculum for students with graduate degrees, e.g. MS, DPT (compared to a typical 60-semester-credit curriculum)
- Convenient part-time study options
- Premier facilities and a dynamic learning environment
- Infused with the latest technology, offering selected courses online
- Federally-funded faculty researchers

DREXEL UNIVERSITY
College of
Nursing and
Health Professions

Curriculum

The curriculum offers considerable freedom in structuring an individualized program. Courses are available through a mix of traditional, online, independent studies and practica formats. The interprofessional core courses prepare students for collaborative interdisciplinary research. Core courses are offered in research and teaching with additional courses and seminars in the student's chosen area of interest. The curriculum is condensed from the conventional 60 semester hour requirement to an enhanced 48 quarter credit minimum.

Doctoral Residency

Consistent with the highest standards in quality PhD education, students immerse themselves in study with a research mentor. Scheduling of the onsite residency period is flexible, depending on the research plan and the faculty-student contract.

Research Facilities

Our research facilities include over 9,000 square feet of well-equipped research laboratory space (Biomechanics, Gait, Pediatrics, and Neuromuscular Performance Labs), with equipment including force plates, EMG, motion analysis and human performance measurement equipment. This space includes conference rooms, PhD and post doc offices, and is located next door to the College's 14,000 square-foot, multi-disciplinary clinical practice. The PhD program has active clinical research networks with numerous pediatric and adult healthcare facilities in the region.

FOR MORE INFO. CONTACT: **Mary Rinker • Admissions Coordinator**
Phone: 267.359.5535 • **Email:** mmr367@drexel.edu **Web:** http://www.drexel.edu/PhysicalTherapy

APPLY ONLINE AT:

https://www.drexel-grad.org/apply/
Drexel University Application Processing
P.O. Box 34789 Philadelphia, PA 19101

PROGRAM FACULTY

Lisa Ann Chiarello, PT, PhD, FAPTA, Professor, Director of the DHSc Program, Associate Director of Family Interventions Science Research Center
Dr. Chiarello conducts research in the area of pediatric community-based service delivery, engagement of families and children in rehabilitation, and participation of children with physical disabilities in family, school, and recreational activities. She was co-principal investigator for the Move & PLAY (NIDRR & CIHR funded) and PT COUNTS (DOE funded) study and co-investigator for the On Track (PCORI & CIHR funded) study. Dr. Chiarello is currently co-investigator for the Engagement in Pediatric Rehabilitation study (CIHR funded) and co-principal investigator for Promoting Successful Participation pilot study (CanChild funded).

Margaret A. Finley, PT, PhD, Associate Professor
Dr. Finley's research interest is primarily rehabilitation biomechanics of upper extremity function with an emphasis on development and progression of musculoskeletal pain in chronic health condition such as SCI and stroke. Her work takes a biopsychosocial approach and she is working to develop a biopsychosocial prospective surveillance model of musculoskeletal pain. She is currently funded by the Department of Defense to develop this model in individuals following SCI.

Clare E. Milner, PhD, FACSM, Associate Professor
Dr. Milner is a Fellow of the American College of Sports Medicine. Her research interests are the biomechanics of lower extremity injury, injury prevention, and rehabilitation. In particular, she is investigating the biomechanics of overuse injuries in runners, alongside interventions to reduce the risk of reinjury. She also studies walking biomechanics in adults with or at risk for joint degeneration. Dr. Milner's focus is on keeping people active by applying the tools of biomechanics to reduce injury risk and improve the effectiveness of rehabilitation protocols.

Robert J. Palisano, PT, ScD, FAPTA, Distinguished University Professor, Associate Dean of Research
Dr. Palisano's research includes classification and prognosis for gross motor function in children and youth with cerebral palsy, methods of service delivery to improve participation of children with disabilities, and lifecourse health development of individuals with neuro-developmental conditions. Dr. Palisano is a Scientist at the CanChild Centre for Childhood Disability Research in Ontario, Canada. He co-edits the journal Physical & Occupational Therapy in Pediatrics and is senior editor of the textbook Physical Therapy for Children. His research has been funded by NIH, NIDR, PCORI, CIHR, and Shriners Hospital.

Glenn Williams, PT, PhD, ATC, Associate Professor and Department Chair
Dr.Williams directs the Orthopaedic & Sports Rehabilitation Research Laboratory. His research focuses on neuromuscular plasticity after knee joint injuries (ACL injury, meniscus injury), optimizing rehabilitation of these injuries, knee osteoarthritis, and using emerging technologies such as wearable sensors to advance treatment of knee injuries and our understanding of human performance. Dr. Williams has been funded by the NIH, NFL Charities Medical Research Grants program, and industry. Noteworthy collaborations include research with the Multicenter Osteoarthritis Study (MOST, NIH funded), Osteoarthritis Initiative (OAI, NIH funded), and Multicenter Orthopaedic Outcomes Network (MOON, NIH funded).

PhD Program in Rehabilitation Sciences • Sample Curriculum for **Full-Time** Student with Master's or other Graduate Degree

Year	Fall Quarter	Winter Quarter	Spring Quarter	Summer Quarter
1	• Foundations for Rehab Research • Foundations in Biostatistics • Measurement Theory	• Foundations in Research Methods • Intermediate Biostatistics I • Elective	• Health Professional Education • Intermediate Biostatistics II • Elective	• Research Practicum • Academia
2	• Research Practicum • Independent Study • Teaching Practicum	• Scientific Inquiry & Writing • Independent Study • Teaching Practicum	• Dissertation Research	• Dissertation Research
3	• Dissertation Research	• Dissertation Research	• Dissertation Research	• Dissertation Research