

DHSc in Rehabilitation Sciences



Program Mission

To prepare physical therapists and occupational therapists to take leadership roles as educators and master clinicians in Rehabilitation Sciences and to promote transfer of knowledge, evidence-based practice, professional responsibility, and lifelong learning across a variety of academic and clinical settings.

Program Overview

The Doctor of Health Science (DHSc) program is designed to be an advanced doctoral degree program for professionals seeking leadership roles in education and/or clinical practice. The program includes foundation courses in the health professions, teaching, research, and the opportunity for focused study in a specialized area of clinical practice such as pediatrics, orthopedics, and hand rehabilitation. We have specifically designed the program to accommodate the working professional. The objectives of the DHSc program include four areas: leadership, education, scholarship, and clinical health care practice. Graduates of the DHSc degree in Rehabilitation Sciences will be prepared to:

1. Practice as a master clinician in an area of advanced practice through clinical decision making that is consistent with concepts of client-centered care and current best evidence.
2. Synthesize theory, research, and health care policy relevant to individuals with movement dysfunction to promote transfer of knowledge into clinical practice.
3. Serve effectively as consultants to patients, clients, community organizations, and professional colleagues.
4. Serve effectively as educators in rehabilitation sciences in academic, clinical, and community settings.
5. Develop and evaluate structure, tests and measures, process, and outcomes of service delivery and/or intervention through scholarship in an area of advanced practice or education.
6. Communicate information effectively through peer-reviewed professional presentations and publications.

Program Features

- Flexible, individualized program aligned with student's professional goals and responsibilities
- Concentrations in pediatrics, orthopedics, and hand rehabilitation
- Dynamic online learning supplemented with onsite sessions to provide mentorship and foster student engagement
- Comprehensive preparation for clinical leadership and academia
- Foundation in rehabilitation science research

Curriculum

The DHSc Program consists of a minimum of 48 quarter credits completed part-time over 3 to 5 years. The 48 credits include required didactic courses, an elective course, a practicum experience, and a clinical dissertation project. The curriculum includes 4 *foundation courses* (Leadership & Professional Issues, Health Promotion, Fitness & Wellness, Informatics in the Health Professions, and Application of Evidence to Practice), 4 *teaching courses* (Health Professional Education, Academia, and Teaching Practica I and II), 4 *research courses* (Introduction to Biostatistics, Measurement Theory, Research Methods, and Statistical Applications), 3 *clinical specialization courses* (in pediatrics, orthopedics, or hand and upper quarter rehabilitation), 1 *practicum* experience (advanced practice clinical, administrative/leadership, or teaching practicum), 1 *elective* (includes opportunity for a research practicum), and a *clinical dissertation*.

FOR MORE INFO. CONTACT:

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Web: <http://www.drexel.edu/PhysicalTherapy>

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DREXEL UNIVERSITY
College of

**Nursing and
Health Professions**

PROGRAM FACULTY

Lisa Ann Chiarello, PT, PhD, PCS, FAPTA, Professor, Director of the PhD and DHsc Programs

Dr. Chiarello conducts research in the area of pediatric community-based service delivery, determinants of outcomes, family-centered care, engagement of families and children in rehabilitation, and participation of children with physical disabilities in family, school, and recreational activities. She was principal investigator for the Move & PLAY research study and co-PI for the PT COUNTS study. Dr. Chiarello is currently co-investigator for the Engagement in Pediatric Rehabilitation study and the On Track study on developmental trajectories for children with cerebral palsy.

Dr. David Ebaugh, PT, PhD, Associate Clinical Professor

Dr. Ebaugh's research interest is in shoulder girdle biomechanics. His primary focus is the identification of neuromusculoskeletal impairments associated with shoulder pain and dysfunction. The long-term goal of his research is to develop more effective interventions to prevent or rehabilitate shoulder pain and functional limitations.

Jane Fedorczyk, PT, PhD, CHT, Clinical Professor, Coordinator, Advanced Practice Certificate in Hand and Upper Limb Rehabilitation

Dr. Fedorczyk is an internationally recognized by her publications and presentations on topics such as: tennis elbow, nerve compressions, pain modulation and physical agents. Her research interest is in the area of upper extremity tendinopathies and nerve injuries. She has received grants from the American Association of Hand Surgery and the American Society of Hand Therapists (ASHT) for these studies. She is co-editor of the 6th edition of Rehabilitation of the Hand and Upper Extremity and serves on the board of directors for ASHT and the Hand Rehabilitation Foundation.

Margaret A. Finley, PT, PhD, Associate Professor

Dr. Finley's research interests are rehabilitation biomechanics of upper extremity function with an emphasis on how scapular mechanics contributes to reaching and daily tasks and the identification and treatment of underlying neuromusculoskeletal factors associated with rotator cuff disease. Her research has strongly relied on biomechanical analyses of human dynamics in functional activities, translating scientific innovation into clinical practice.

Margery A. Lockard, PT, PhD, Clinical Professor

Dr. Lockard's research interests include the development of clinical decision making skills in physical therapy students using simulated clinical experiences and standardized patients, osteoarthritis and its effects on function prosthetic and orthotic devices. She is also interested in

physical fitness and activity in children with disabilities through recreational soccer. In the PT department, Dr. Lockard teaches amputation and prosthetic devices and participates in the problem-based learning, clinical correlation courses. She practices in Drexel's Eleventh Street Family Health Clinic.

Clare E. Milner, PhD, FACS, 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 older adults with a focus on gait after knee replacement. A further interest is in reducing the risk of knee injury in female recreational athletes. 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.

Margaret (Maggie) O'Neil, PT, PhD, Associate Professor

Dr. O'Neil conducts research on physical activity and fitness measures and interventions in children and youth with disabilities (cerebral palsy) and chronic conditions (obesity). She conducts clinic and community based research projects to promote active, healthy lifestyles in children and their families. Her research includes environmental influences on physical activity and participation for children and families. Dr. O'Neil has a secondary appointment in the School of Public Health, Department of Community Health and Prevention, where she is an active member of the Maternal and Child Health Workgroup.

Margo N. Orlin, PT, PhD, FAPTA, Associate Professor

Dr. Orlin's research work is in the biomechanics of running in children with cerebral palsy and their participation in activities related to running in their every day lives. Her other scholarly interests include activity and participation of children, youth and young adults with CP; and the continuum of care for individuals with lifelong disabilities. She is a past recipient of Ethel and Jack Hausman Clinical Research Scholars Award, a 3-year grant from the United Cerebral Palsy International Research Foundation for her work in this area. Dr. Orlin has a Scientific Staff appointment at the Philadelphia Shriners Hospital for Children.

Robert J. Palisano, PT, ScD, FAPTA, Distinguished University Professor

Dr. Palisano's research includes classification and prognosis for gross motor function in children and youth with cerebral palsy, determinants of activity and participation in

children with physical disabilities, methods of service delivery to improve activity and participation of children with disabilities, and transition to adulthood for youth with physical disabilities. Dr. Palisano is Scientist at the CanChild Centre for Childhood Disability Research, Ontario, Canada. He co-edits the journal, Physical & Occupational Therapy in Pediatrics, and is associate editor of the textbook Physical Therapy for Children.

Patricia P. Rubertone, MPT, MSW, EdD, Assistant Clinical Professor

Dr. Rubertone is the Director of Experiential Learning. In this capacity she directs the department's experiential learning activities in the Standardized Patient Lab. Her teaching and research interests include professional development, teaching-learning processes, and assessment of student clinical performance. Her dissertation focused on the examination of differences of physical therapy student clinical performance by novice versus experienced clinical instructor and applied a mixed methods approach involving quantitative and qualitative assessment. Her clinical interest and experience is in adult neurological rehabilitation.

Sheri P. Silfies, PT, PhD, Associate Professor

Dr. Silfies is the coordinator for the Department's research labs. Her research focuses on measurement of neuromuscular control. Her work is concentrated in two primary areas: 1) examining mechanisms underlying poor trunk motor control in patients with non-specific low back pain (NSLBP) and 2) assessment of core control in athletes. Dr. Silfies' long-term research goal is to differentiate the role and impact of unresolved impairment in trunk neuromuscular control on the development of recurrent and chronic NSLBP. The current emphasis of studies in athletes is substantiating the proposed link between poor core neuromuscular control and extremity injuries.

Annette Willgens, PT, EdD, PCS, Associate Clinical Professor, Director of Clinical Education

Dr. Willgens has special interests in pediatric yoga and mindfulness, hippotherapy, and parent-child interactions. Past research publications have included topics such as: mindfulness for stress management among student clinicians, pediatric practitioner burnout and compassion fatigue, student failure in clinical education, and students as teachers during clinical practice courses. Dr. Willgens is an associate editor for The Qualitative Report, specializing in phenomenology and grounded theory methodologies. Currently, she is developing a methodological congruence tool to improve rigor and ethics among novice researchers. Her clinical interest and experience is pediatric service delivery for young children.

Doctor of Health Science • Sample Curriculum for **Part-Time** Student (program can be extended over 5+ year plan)

Year	Fall Quarter	Winter Quarter	Spring Quarter	Summer Quarter
1	- Leadership & Professional Issues - Introduction to Biostatistics - Onsite program orientation	- Application of Evidence to Practice - Health Promotion, Fitness & Wellness	- Informatics in Health Professions - Health Professional Education	- Teaching Practicum I - Clinical Question Development
2	- Measurement Theory - Teaching Practicum II	- Research Methods - Clinical Concentration Course	- Biostatistical Applications (onsite component) - Clinical Concentration Course	- Academia - Clinical Concentration Course - Comprehensive Exam
3	- Elective - Clinical Dissertation I - Proposal defense (onsite)	Clinical Dissertation II	Practicum	Clinical Dissertation III