Transitional Doctor of Physical Therapy

Pediatric Science

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Curriculum

Rocky Mountain University of Health Professions (RMUoHP) is pleased to present a transitional Doctor of Physical Therapy (DPT) program with a specialization in pediatrics. The transitional DPT program is designed to provide meaningful and obtainable, post-professional education while meeting APTA competencies that facilitate the development of the 21st century physical therapist practitioner. The post-professional transitional clinical doctorate program in physical therapy, as defined by the APTA, should “provide post-baccalaureate physical therapists with opportunities to augment knowledge, skills, and behaviors attained in initial professional education.” The goal of RMUoHP is to address the public’s need for high quality physical therapy service by providing practicing clinicians with opportunities to develop knowledge, skills, and behaviors commensurate with evidence-based practice.

This program will highlight aspects of pediatric science such as management of movement disorders, pediatric pharmacology and imaging, pediatric gait, embryology and fetal development related to neonatal care, and issues in early intervention and school-based practice. An individually designed pediatric science capstone project allows students to develop a teaching, clinical, or administrative project related to pediatrics.

The transitional DPT program is designed for physical therapist practitioners with a bachelor’s or master’s degrees to pursue a post-professional clinical doctorate without having to relocate. Students will complete three semesters in a blended learning model of onsite face-to-face seminars, and online learning activities. An additional fourth semester is offered as needed to complete the capstone project.

In the transitional DPT program, physical therapist professionals will:

- Develop knowledge, skills, and behaviors commensurate with evidence-based practice.
- Demonstrate evidence-based, reflective analyses of pediatric patient care.
- Identify and analyze advanced level pediatric management including screening, examination, evaluation, diagnosis, prognosis, care plans, intervention, and outcomes assessment.
- Apply ethical theories and legal standards to decision-making regarding healthcare issues.
- Expand technical writing, and professional presentation competencies.

## Program Module Calendar

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<th>Start Date</th>
<th>On-site Dates</th>
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<td><strong>Semester 1</strong></td>
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<tr>
<td><strong>Fall 2020</strong></td>
<td>August 31, 2020</td>
<td>TBD</td>
<td>December 18, 2020</td>
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<td><strong>Semester 2</strong></td>
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<tr>
<td><strong>Winter 2021</strong></td>
<td>January 4, 2021</td>
<td>TBD</td>
<td>April 23, 2021</td>
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<td><strong>Semester 3</strong></td>
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<td><strong>Summer 2021</strong></td>
<td>May 3, 2021</td>
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<td>August 20, 2021</td>
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<td><strong>Semester 4</strong></td>
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*(Students may elect to complete P 529.2 (see page 8) during this semester rather than during Semester 3.)*
# Semester 1

(6 credits)

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**P 544  Pediatric Differential Diagnosis and Medical Screening for Practitioner Referral**

This course is designed to enhance the skill level of physical therapists working with children in conducting selected portions of an examination which include taking a history for the pediatric client, reviewing systems beyond the system(s) typically of concern to therapists, addressing health promotion with children and families, and recognizing signs and symptoms that indicate the need for a referral to another health practitioner. The student is expected to bring knowledge of tests and measures and examination procedures unique to the respective discipline.

**P 564  Evidence-based Analysis of Interventions in Pediatric Physical Therapy Practice**

This course empowers students to develop focused clinical questions pertinent to their individual clinical practices and use the most effective online search strategies of relevant medical databases. Students will learn to quickly and efficiently identify articles most likely to answer their clinical questions while implementing a practical and systematic process for critically evaluating professional journal articles. Ultimately, students obtain the essential tools to improve confidence in selecting the most effective evidence-based interventions for pediatric patients.

**P 702  Leadership In Pediatric Physical Therapy**

Models and perspectives are analyzed for administering, leading, and consulting in pediatric therapy settings with strategies included for managing challenging work setting dynamics. Self-reflection is conducted on personal leadership style and approaches within the combined framework of Goleman’s Emotional Intelligence model and Hagberg’s Real Power model.

**P 721.3  Scientific Writing and Professional Presentations**

An overview is provided regarding structure and process of scientific writing for the medical literature including writing mechanics, common problems in medical writing, steps in preparing for publication, and processes for research grant applications. Strategies are reviewed and evaluated for professional presentations (poster and platform), international presentations with an interpreter, and media interviews.

Course content and dates subject to change.
Semester 2  
(9 credits)

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CC 507.2  Critical Inquiry 1: Quantitative Issues in Published Research  
(1 credit; 1 day On-site)

This course involves the study of data analysis, statistics, and results reported in scientific literature for the physical therapist. Basic and advanced topics in statistics are reviewed with an emphasis on interpreting data analysis methods and results commonly reported by authors in physical therapy literature. Students will interpret statistics reported in journal articles, and make judgments about the appropriateness of reported methods, interpretations, and conclusions based on research designs, data, and assumptions underlying applied statistical methods. Examples from current physical therapy literature will be cited throughout the course to illustrate concepts and improve the students' abilities to interpret and critique the work of others. Foundational knowledge from this course is needed for the Evidence-based Practice concepts presented in CC 527.

CC 527  Critical Inquiry 2: Evidence-based Practice  
(2 credits; 1 day On-site)

This course is designed to prepare healthcare professionals with the knowledge, skills and abilities necessary to make independent judgments about the validity of clinical research and to implement evidence-based clinical practice in their careers. This course focuses on the concepts of evidence-based practice with emphasis on forming answerable clinical questions and effective literature search strategies. The evaluative approach to appraising the research literature prepares the students to judge the evidence on: 1) the accuracy and validity of diagnostic tests and the application of important diagnostic tests in the care of a specific patient; 2) the effectiveness of clinical interventions; 3) the natural history of health-related conditions; 4) risk of harm from select preventative and therapeutic interventions. Based on presentation of case scenarios, students are required to formulate the key question(s), rapidly search medical and health-related databases, appraise the evidence with a critical analysis and describe application of the evidence in a clinical context.

P 718  Adolescents and Adults with Cerebral Palsy: Lifespan Outcomes and Literature Analyses  
(1 credit; 1 day On-site)

Changes across the lifespan are examined in the musculoskeletal, cardiopulmonary, functional, vocational, social, self-esteem, and family status of adolescents and adults with cerebral palsy. Implications of this cascade of changes for pediatric therapy management are discussed with analysis of the literature on outcomes in adulthood.

Course content and dates subject to change.
**P 724  Embryology and Fetal Development: Implications for Neonatal Care**  
(1 credit; 1 day On-site)

This course provides an overview of the development of selected body systems (cardiovascular, gastrointestinal, respiratory, genitourinary, face/neck) and the basis for major anomalies of these systems. Examination of embryologic and fetal development of the central nervous system and sensory systems are included with implications for preterm and other infants in the neonatal intensive care unit and home settings.

**P 735  Topics in Pediatric Gait: Seminar and Lab**  
(1 credit; 1 day On-site)

This course focuses on pre-and-early ambulation in a population predisposed to rapid and dramatic changes: birth to three year old children. Typical and atypical preparation for and development of ambulation are examined in the infant and toddler. The effects of biomechanics, neuromuscular and sensory systems, orthotics, and tone management are integrated as participants learn to build intervention strategies to address ambulation early and effectively in infants and toddlers. Clinical application involves children with diagnoses of cerebral palsy, developmental delay, prematurity, or Down Syndrome. Course material is presented using lecture, videos, and group problem solving. Participants practice techniques with each other during lab sessions.

**TDPT 508  Directed Independent Study**  
(3 credits; Online)

This directed independent study project provides each student with an individually tailored opportunity for an evidence-based reflective analysis of pediatric patient care. Using the evidence-based skills and competencies gained from courses in the first semester, this project allows the pediatric physical therapist to carefully analyze care administered for a selected patient related to current best evidence. Prerequisites: CC 507.2, CC 527, CC 564, P 544.

**Semester 3**  
(9 credits)

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**P 510  Pediatric Pharmacology & Imaging**  
(1 credit; 1 day On-site)

In this course, pharmacodynamics and pharmacokinetics of commonly prescribed medications and over-the-counter drugs are addressed for children receiving physical or occupational therapy. Potential drug complications of adverse effects and interactions are reviewed. An overview of brain and musculoskeletal imaging procedures occurs with emphasis on the neonatal brain and common musculoskeletal pathology in children.

Course content and dates subject to change.
P 703 Seminar on Children and Youth in Early Intervention and Education Environments (2 credit; 1 day On-site)
This course includes discussion and application of laws, practice guidelines, and service delivery models for early intervention and school-based practice settings. Development and use of individualized family service plans and individualized education programs are addressed. Clinical decision-making frameworks are used with peer-reviewed literature to analyze and support selected interventions through case-based presentations.

P 723 Legal and Ethical Issues for Advanced Practice in Pediatric Physical Therapy (1 credit; 1 day On-site)
An overview of the American legal system is provided with focus on medical malpractice, negligence, informed consent, and HIPPA issues. Ethical considerations, risk management, and strategies for identifying and managing professional misconduct in the workplace are discussed. Documentation standards and expert witness-deposition procedures are reviewed. Each student presents a legal or ethical pediatric case exemplar from their pediatric practices.

P 528 Pediatric Science Capstone Seminar (1 credit; 1 day On-site)
In this seminar course, students have the opportunity to present the topic and outline of proposed pediatric science capstone projects for review and feedback. Program development principles and evidence-based practice approaches to project development are explored.

P 529.2 Pediatric Science Capstone* (4 credits; Online)
The pediatric capstone involves an individualized experience to expand knowledge, competency, and leadership in pediatrics. The project is negotiated with the instructor and can be achieved in a variety of settings (clinical, education, administration). The capstone project may target professional development from a range of experiences including program development, teaching, leadership/management, scientific writing, and subspecialty training with a program development component. An alternative approach is to build on the previous directed independent study project from semester 2. A soft-bound technical report of the project is submitted. Pre-requisites: CC 507.2, CC 527.

*This online course may be taken in an additional 4th semester on permission of the graduate program director.

Course content and dates subject to change.