

PHTH 606 INTRODUCTION TO PEDIATRIC PHYSICAL THERAPY

Credits: 2 credits

Prerequisites: For the students entering the first year of the M.Sc. (A) PT program, successful completion of all Qualifying Year /U3 courses.

Instructors:

Primary instructor:

Elisabeth Coutu, PT

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Other instructors:

Clinicians from Pediatric Settings in Montreal.

Course Description: This two-credit course introduces the principles of pediatric habilitation and rehabilitation pertinent to the practice of physical therapy.

Expanded Course Description: Through a philosophical approach that includes aspects such as client/family-centred care, awareness of cultural diversity, psychosocial dimensions of disability, and accountability/evidence-based practice as well as by emphasizing clinical reasoning, this practical and problem-based course, applies the frameworks of neurological, orthopaedic and cardio-respiratory rehabilitation to the assessment and treatment of various paediatric conditions.

Course Structure: The course includes one 3.5 hour class per week consisting of lectures, practical classes, and clinical reasoning activities. An equivalent number of hours outside of class time will be required for preparation and integration of the material each week.

Foundational knowledge: This course will draw on knowledge, attitudes and skills previously acquired by the students. It is essential that basic principles and approaches in orthopaedic, neurological and cardio-respiratory rehabilitation taught in U3/QY be well integrated prior to participating in this course (including underlying assumptions and scientific basis).

Course Content:

Topics include, but are not limited to:

1. Developmental trajectories in typically and atypically developing infants and children.
2. Paediatric evaluation and use of specific standardized assessments in infancy, childhood and adolescence
3. Goal setting for paediatric rehabilitation.
4. Creating developmentally appropriate treatment activities
5. Using the ICF to frame evaluation, goal setting and treatment planning
6. Assessment and treatment of children with neurological conditions such as (including understanding of aetiology, epidemiology and pathophysiology):
 - i. Myelodysplasia
 - ii. Hydrocephalus
 - iii. Cerebral palsy
 - iv. Brachial Plexus injuries
 - v. Muscular dystrophy
 - vi. Traumatic brain injury
 - vii. Developmental coordination disorder
 - viii. Spinal Cord Injury
7. Assessment and treatment of children with orthopedic conditions such as (including understanding of aetiology, epidemiology and pathophysiology):
 - i. Congenital foot deformities
 - ii. Congenital and developmental hip dysplasia
 - iii. Adolescent idiopathic scoliosis
 - iv. Juvenile idiopathic arthritis and other rheumatoid diseases
 - v. Torticollis
 - vi. Growth related injuries (e.g. apophysitis, epiphyseal fractures and disorders)
 - vii. Sports and overuse injuries
8. Assessment and treatment of children with cardio-respiratory conditions such as (including understanding of aetiology, epidemiology and pathophysiology):
 - i. Asthma
 - ii. Cystic fibrosis
 - iii. Cardiomyopathies
 - iv. BPD (chronic lung disease)

Learning Objectives: With attendance and active participation in class, the student will be actively engaged in developing the following core competencies as they relate to the roles for physiotherapists¹ in the context of the practice of physiotherapy with children with congenital, developmental, and acquired disabilities.

¹ Essential Competency Profile for Physiotherapists in Canada, October 2009

Expert

1. Describe normal prenatal embryologic and body systems development (musculoskeletal, neuromuscular, and cardiopulmonary)
2. Describe age-appropriate milestones for infants and preschool children in the following domains: gross motor, fine motor, communication, cognitive, and personal-social.
3. Describe the typical sequence of early motor development, as well as gait development, and identify important components of movement acquisition. This also includes being able to discuss potential factors influencing the acquisition of basic and functional motor abilities in infancy and early childhood.
4. Explain the essential pathophysiology and consequences of common orthopaedic, neurological and cardio-respiratory paediatric disorders.
5. Use a family-centered approach when consulting with the child and his/her parents to obtain information about his/her health, associated history, previous health interventions, and associated outcomes to determine indications and contra- indications to physiotherapy intervention in children
6. Collect assessment data relevant to the child's and family's needs and pediatric physiotherapy practice. This includes selecting appropriate measurement tools for discrimination, prediction, and evaluation of components of the International Classification of Functioning, Disability and Health.
7. Analyze and interpret assessment findings as well as explain them in terms that families and children/adolescents can understand.
8. Establish a physiotherapy diagnosis for children presenting with common orthopaedic, neurological and cardio-respiratory paediatric and adolescent disorders.
9. Develop and recommend an intervention strategy that is developmentally appropriate for children of varying ages. This will include integrating basic cardio-respiratory, neuroscience, musculo-skeletal concepts and kinesiology principles to construct and organize developmentally appropriate physical rehabilitation activities for children of varying ages.
10. Demonstrate how to implement interventions with children of varying ages, including teaching home exercises to be done by children and/or their parents.
11. Demonstrate how to evaluate the effectiveness of interventions and progress activities accordingly during interactions in clinical settings.
12. Develop problem-solving skills to prepare for a successful clinical placement in paediatric rehabilitation.

Communicator

13. Demonstrate effective and appropriate verbal, nonverbal and written communications to be applied when interacting with children and families, with other health care professionals and peers when appropriate.

Collaborator

14. Establish and maintain respectful and effective interprofessional relationships during group assignments and presentations
15. Understand the role of interprofessional practice in pediatrics (during group assignments and presentations)

Leader

16. Begin to identify the health needs and concerns of individual children and families, of populations, and communities, as well as understand professional responsibility in responding to those needs.

Scholarly practitioner

17. Use appropriate research methods to further advance his/her knowledge in paediatric physiotherapy (appraise evidence; consult evidence-based websites and resources; etc.)
18. Identify available research evidence or sound theoretical background supporting the selected interventions or propose a method to determine effectiveness of an intervention for an individual child

Professional

19. Demonstrate a professional and respectful attitude when interacting with children, families, as well as their peers, and other professionals involved in the course
20. Recognize and be guided by the scope of practice of paediatric physiotherapy.

Instructional Methods:

- Lecture: didactic lecture with assigned readings and power point presentations available through MyCourses.
- Practical classes and clinical reasoning activities: hands-on skills laboratories based on case histories to promote clinical reasoning, and requiring advance preparation by students. Attendance is compulsory.
- Student self-directed learning: readings, reviewing and appraising evidence on selected topics.

Course Materials:

Readings posted on WebCT weekly

Reference texts:

- Campbell S., Palisano R and Orlin M, Physical Therapy for children, 4th and 5th ed, Elsevier (Sauders), 2012
- Tecklin, JS. Pediatric Physical Therapy (4th ed), Lippincott Williams and Wilkins, 2008
- Effgen SK. Meeting the Physical Therapy Needs of Children (2nd ed), F.A. Davis Company. 2013.

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Student Assignment and Evaluation:

Type	Description	Value (%)
Quizzes	Online quizzes on normal development, standardized assessments and readings	10%
Spot checks	Formative oral assessment of practical and theoretical material seen in previous class in preparation for OSCE exam	10%
Assignment	Presentation and written paper about a given pediatric condition based on a clinical case	30%
Final exam (OSCE)	Practical exam format (4 stations) including one written station (short answers)	40%
Participation	Attendance Active participation during group discussion and in class activities Peer-evaluation	10%

Special Requirements for Course Completion and Program Continuation: In order to pass the course, a grade of at least B- (65%) must be obtained as a total course mark. Please refer to Section 7.6.7 Examinations, of the 2017-2018 [McGill University Health Sciences Calendar](#) for information on University regulations regarding final examinations and supplementals. This course falls under the regulations concerning theoretical and practical evaluation as well as individual and group evaluation. Please refer to the section on Marks in the Rules and Regulations.

Plagiarism/Academic Integrity: [Amended by Senate on April 17, 2013]: McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the [Code of Student Conduct and Disciplinary Procedures](#).

L'université McGill attache une haute importance à l'honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le [Code de conduite de l'étudiant et procédures disciplinaires](#).

Dress Code: Students are expected to demonstrate professional behaviour and wear appropriate attire at all times, in accordance with clinical sites' specific regulations.

Attendance: Students who have missed more than 10% of laboratory sessions, clinical reasoning workshops or clinical site visits without a university-sanctioned reason for their absence, will see their final course mark reduced by 10%. Please refer to section on attendance in course guide.

Right to Submit in (English or in) French [approved by Senate on 21 January 2009]: In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded. This right applies to all written work that is to be graded, from one-word answers to dissertations.

Consequences of Not Completing Assignments as Requested: An individual who does not complete a required assignment and does not have a university-recognized reason for deferral would receive a 0 in that portion of the evaluation. Assignments submitted late will receive a penalty of 2% per day late, including week-ends.

Disability: If you have a disability please contact the instructor to arrange a time to discuss your situation. It would be helpful if you contact the [Office for Students with Disabilities](#) at 514-398-6009 before you do this.

Professional Conduct: Professionalism and accountability are expected throughout the course of the semester. This includes the on-going respectful nature of teacher-student as well as student-student interactions.

Technology in Class: Your respectful, attentive presence is expected, therefore while you are permitted to use your laptop in class, it is understood that you will not be using your laptop or cell-phone for social purposes during class time (e.g. email, msn, sms). Your cell phone should be on silence during class time and phone calls should only take place during the break or after class.