

## PHTH 550 PHYSICAL THERAPY ORTHOPEDIC MANAGEMENT

**Credits:** 7

**Prerequisites:** Successful completion of all U2 courses or admitted to the qualifying year of PT program

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**Course Description:** This course is the first in a series of three where an integrated approach is used to provide the students with the necessary competencies to familiarize them with common musculoskeletal conditions across the lifespan and provide them with Physical Therapy skills for evaluation and treatment.

**Course Structure:** Weekly:

2-½ hour lecture

Two 4-½ hour combined clinical skills labs & clinical reasoning workshops

**General Learning Outcomes:** On completion of this course the student will be able to evaluate and treat clients with known conditions affecting the musculoskeletal system.

**Specific Learning Outcomes:** On completion of this course the student will:

1. **Demonstrate evidence of theoretical knowledge and practical skills in the following areas relevant to musculoskeletal rehabilitation:**
  - a. Anatomy and biomechanics of the musculoskeletal and peripheral nervous systems, including surface anatomy and palpation
  - b. Psychometric properties of assessment tools

- c. Principles and stages of wound healing
- d. Principles of exercise testing and prescription
  - i. Aerobic / Cardio-respiratory
  - ii. Resistance (for strength, power, local muscle endurance)
  - iii. Flexibility
  - iv. Balance & Proprioceptive
- e. Gait assessment and training\*
  - i. Mobility aids
- f. Postural assessment\*
  - i. Positional / postural control
  - ii. Alignment of body segments
- g. Principles of joint assessment
  - i. Range of motion (including goniometry)
  - ii. Strength (including manual muscle testing)
- h. Aetiology, epidemiology, pathophysiology and management of:
  - i. Fractures
  - ii. Arthroplasties
  - iii. Limb Amputations
  - iv. Osteoarthritis†
  - v. Rheumatoid Arthritis and other Rheumatic Diseases
  - vi. Burns
  - vii. Low Back Pain†
- i. Pharmacological management of the conditions above:
  - i. Classes of medication
  - ii. Principal and side effects of medication
  - iii. Relevance to physiotherapeutic management
- j. Biophysical agents\*
  - i. Ultrasound
  - ii. Interferential currents
  - iii. Thermal modalities
  - iv. Biophysical agents and wound healing

\*Topic will overlap with PHTH-551

†Topic will be introduced, with additional information presented in PHTH-560 and PHTH-623.

**2. Integrate the theoretical knowledge and practical skills described above in order to perform a physiotherapy assessment of clients with known musculoskeletal conditions affecting the extremities.**

- a. Develop and demonstrate verbal and written communication skills in order to:
  - i. Interact with clients, care-givers and other health care professionals
  - ii. Conduct an appropriate and thorough client interview, including:
    - 1. relevant past medical history
    - 2. relevant subjective information
    - 3. individual and environmental factors which may affect management
  - iii. Document a client assessment and intervention using the SOAPIE format
  - iv. Document the findings of standardized outcome measures
- b. Identify subjective and objective findings in order to:
  - i. Develop a clinical impression
  - ii. Assess the nature, severity and irritability of the condition
  - iii. Develop a problem list based on the WHO International Classification of Functioning, Disability and Health Model
  - iv. Determine a realistic prognosis
- c. Ensure a safe environment for client and therapist at all times.
  - i. Identify contraindications in the management of specific conditions
  - ii. Ensure appropriate use of transfer and mobility aids

**3. Develop and apply an evidence-informed intervention plan for clients with known musculoskeletal conditions affecting the extremities.**

- a. Make use of treatment protocols and clinical practice guidelines
- b. Identify short and long-term client-centered goals
- c. List appropriate outcome measures
- d. Educate client regarding his/her condition and its management
  - i. Promote active self-management
- e. Adapt the interventions based on the client's response and progress
- f. Recognize the need for referral to other services
- g. Estimate when client discharge is appropriate

**Course Content:** TBA

**Course Materials:**

1. Biel A. (2010) *Trail guide to the body* (4<sup>th</sup> Edition), Books of Discovery, Boulder, CO.
2. Kisner C. and Colby L. (2007), *Therapeutic exercise: Foundations and techniques* (5<sup>th</sup> Edition), F.A. Davis, Philadelphia, PA.
3. Course pack - by McGill Ancillary Services

**Reference Texts:**

1. Van Ost L. (2010) *Cram session in goniometry: A handbook for students & clinicians*, Slack Inc., Thorofare, NJ.
2. Brotzman S. and Wilk K. (2007), *Handbook of orthopaedic rehabilitation* (2<sup>nd</sup> Edition), Mosby (Elsevier), Philadelphia, PA
3. Kendall F., McCreary E., Provance P., Rodgers M. and Romani W. (2005), *Muscles: Testing and function with posture and pain* (5<sup>th</sup> Edition), Lippincott Williams and Wilkins, Philadelphia, PA

**Student Assignment and Evaluation:**

Assignment/evaluation	Description	%
Mid-term evaluation	Written; multiple choice and short answer format.	25%
	Objective Structured Clinical Examination (OSCE)	15%
Final evaluation	Written; multiple choice and short answer format.	40%
	Objective Structured Clinical Examination (OSCE)	20%

**In the event of extraordinary circumstances beyond the University’s control, the content and/or evaluation scheme in this course is subject to change.**

**Special Requirements for Course Completion and Program Continuation:**

For U3 students, in order to pass the course, a grade of at least C+ (60%) must be obtained as a total course mark. For QY students, in order to pass the course, a grade of at least B- (65%) must be obtained as a total course mark. Please refer to

the appropriate sections in both undergraduate and graduate calendars on University regulations regarding final and supplemental examinations.

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 for Student Evaluation and Promotion of the Physical Therapy Course Guides.

**Plagiarism/Academic Integrity:** "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 (see [www.mcgill.ca/students/srr/honest/](http://www.mcgill.ca/students/srr/honest/) for more information.)

"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 des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le site [www.mcgill.ca/students/srr/honest/](http://www.mcgill.ca/students/srr/honest/))."

**Dress Code:** Professionalism with respect to dressing is encouraged throughout the course of the semester. It is each student's responsibility to have appropriate attire during all class assignments and learning activities.

**Attendance:** Students who have missed more than 10% of laboratory or small group sessions, or who miss any required professional workshop or seminar, without prior approval, will receive 0/10 for participation in the course. If a course does not have a participation mark, then the final course mark will be deducted by a 10% mark. This rule applies to labs and to all required workshops, seminars or professional activities.

**Right to submit in English or French written work that is to be graded:** 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.

*"Conformément à la Charte des droits de l'étudiant de l'Université McGill, chaque étudiant a le droit de soumettre en français ou en anglais tout travail écrit devant*

*être noté (sauf dans le cas des cours dont l'un des objets est la maîtrise d'une langue)."*

**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.

**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 398-6009 before you do this.

**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.