

PHTH 662 ADVANCED MANUAL THERAPY

General Information

Course #: PHTH 662
Section #: 001
Term: Winter
Year: 2024
Number of Credits: 3

Instructor Information

Julien Bernier, Pht, FCAMPT, MSc (Course co-coordinator/Instructor)
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Various clinicians during in-person labs

Office hours available by appointment (In-person or virtual via Zoom)

Course Description: This professional complementary course aims to further develop M1 students' clinical reasoning and manual therapy skills. Building upon orthopaedic, biomechanical and neurophysiological concepts seen in PHTH 550, 560 & 623, students will acquire clinical reasoning and manual therapy skills to help manage more complex orthopaedic cases commonly seen in private-clinic settings.

Course Structure: The course consists of a combination of short lectures, directed labs and group discussions for six (6) hours a week over 8 weeks.

Instructional Method: The course is given mainly in a lab setting with a very practical hands-on approach. Lectures are integrated into lab time.

Course Content: This course emphasizes assessment and treatment of the spine and peripheral joints within a manual therapy framework. Other physical therapy approaches such as Mulligan and Myofascial techniques will also be introduced.

The structure of the course is divided as follows:

1. Mechanisms of Manual Therapy Explained
2. Introduction to fascia & myofascial release techniques
3. Thoracic spine (PPIVMs, PAIVMs, directional stability tests)

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4. Craniovertebral region (PPIVMs, PAIVMs, PAGs, stability testing)
5. Mid-cervical spine (PPIVMs, PAIVMs, directional stability testing, treatment techniques including basic locking)
6. TMJ (anatomy, biomechanics, pathology, assessment & treatment)
7. Lumbar spine (PPIVMs, PAIVMs, directional stability testing, treatment techniques including basic locking)
8. Review of peripheral manipulations
9. Basic Mulligan techniques

Learning Outcomes

General Learning outcomes: Building on previously learned orthopaedic knowledge, the student will be able to assess and treat clients of different ages using more advanced manual therapy techniques, as well as assess and treat more complex musculoskeletal cases (cranio-vertebral dysfunction, TMJ dysfunction). This course is designed to better prepare students who have a special interest in working in a musculoskeletal private clinic and/or manual therapy setting.

Specific learning outcomes:

Learning objectives	Milestones
1. Demonstrate evidence of theoretical knowledge and practical skills in the following areas relevant to musculoskeletal rehabilitation:	
a. Theory of Manual Therapy <ol style="list-style-type: none"> 1. Evidence-informed application to the practice of physiotherapy <ul style="list-style-type: none"> • Role of joint and soft-tissue mobilization, myofascial release • Principles of joint mobilisations & manipulations <ul style="list-style-type: none"> ○ Osteokinematics and arthrokinematics ○ Passive accessory glides, manipulations ○ Biomechanical vs neurophysiological effects 	6.1.1
b. Aetiology, epidemiology, pathophysiology, assessment & management of complex musculoskeletal pathologies of the spine & TMJ.	6.1.1
c. Advanced components of a physiotherapy scan/assessment <ol style="list-style-type: none"> 1. Self-reported outcome measures / screening questionnaires 2. Lumbar assessment including stability testing 3. Cervical assessment including stability testing 4. Assessment of the myofascial system 5. Assessment of the thoracic spine including stability testing 6. TMJ assessment & treatment 7. Craniovertebral assessment & treatment 	1.3.7, 1.4.1, 6.1.1

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Learning objectives	Milestones
2. Relate the theoretical knowledge and practical skills described above in order to perform a full physiotherapy assessment of clients with complex musculoskeletal conditions affecting the extremities and spine.	
a. Demonstrate verbal and written communication skills in order to <ol style="list-style-type: none"> 1. Interact with clients, care-givers and other health care professionals in a manner which promotes: <ol style="list-style-type: none"> 1. the clients' and/or care-givers' dignity and autonomy 2. respectful, ethical and professional relationships 2. Conduct a client interview, including <ol style="list-style-type: none"> 1. relevant past medical history 2. relevant subjective information 3. personal, medical, environmental, psychosocial and cultural factors which may affect management 3. Write a client assessment and intervention using the H-SOAPIER format 4. Document the findings of standardized outcome measures 5. Write a progress note 	1.1.1 to 1.1.6, 1.3.1 to 1.3.6, 2.1.1 to 2.1.4, 2.2.1 to 2.2.3, 2.3.1 to 2.3.3, 2.3.5, 7.4.1., 7.4.2, 7.4.5
b. Collect relevant objective findings	1.3.7
c. Select and apply manual therapy techniques and special tests appropriate to adult patient's condition	1.3.7
d. Ensure a safe environment for client and therapist at all times <ol style="list-style-type: none"> 1. Identify contraindications to orthopedic conditions 2. Recognize "red flags" which indicate the presence of serious pathology (and need for physician referral) 	1.2.1 to 1.2.3, 1.4.6
3. Further develop the application of clinical reasoning skills in order to establish a physiotherapy diagnosis	
a. Collect subjective and objective findings in order to <ol style="list-style-type: none"> 1. Name the structures that could be at fault 2. Differentiate potential sources of pain and likely causes 3. Identify the severity, irritability and nature of the condition 4. Recognize the supporting and negating evidence related to the patient's condition 5. Interpret assessment techniques including manual therapy techniques, stability tests and special tests 6. Elaborate simple or complex working PT hypotheses 	1.4.1, 1.4.3, 1.4.4, 6.1.1, 6.1.3

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Learning objectives	Milestones
4. Develop and apply an evidence-informed intervention plan related to the physiotherapy diagnosis for clients with complex musculoskeletal conditions affecting the extremities and spine.	
a. Make use of treatment protocols and clinical practice guidelines	1.5.2, 1.5.3, 6.1.1 to 6.1.5
b. Make use of technologies and evidence-informed online resources	2.4.2, 2.4.3, 6.1.1 to 6.1.5
c. Write a problem list based on the WHO International Classification of Functioning, Disability and Health Model	1.4.2, 3.1.1
d. Determine short and long-term client-centered goals	1.1.1, 1.1.3, 1.5.1, 3.1.2
e. Identify appropriate outcome measures that will be used to reassess client status and needs	1.5.6
f. Develop and apply treatment plan to address the problem list and goals which consists of education, modalities, manual therapy, taping, exercise prescription, gait training, postural retraining and functional or work-related retraining	1.5.2 to 1.5.5, 7.2.1
g. Predict a realistic prognosis, anticipate frequency of visits and discharge planning	1.4.4, 1.6.2
h. Educate client regarding his/her condition and its management 1. Promote active self-management	1.5.4
i. Monitor client status by evaluating the effectiveness of the interventions and adapt/modify the interventions, treatment plan and goals based on the client's response and progress	1.5.5 to 1.5.7
j. Recognize the need for referral to other services/health care professionals if required including 1. MD if client came from direct access 2. OT for return to work or ergonomics 3. Psychologist as needed 4. Other health care professionals as needed	1.4.6, 3.1.1, 3.2.1
k. Determine when client discharge is appropriate and develop a discharge or transition of care plan	1.5.2, 1.6.2

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Course Materials Recommended texts:

1. Whitmore, S., Gladney, K. & Driver, A. (2008). The upper Quadrant: A workbook of Manual Therapy Techniques, 2nd Edition. Whitmore Physiotherapy Consulting Inc. Canada.
2. Whitmore, S., Gladney, K. & Driver, A. (2008). The lower Quadrant: A workbook of Manual Therapy Techniques, 2nd Edition. Whitmore Physiotherapy Consulting Inc. Canada.

Reference texts:

1. Dutton (2017). Orthopaedic Examination, evaluation & intervention. 2nd ed. McGraw-Hill
2. Magee DJ (2014). Orthopedic physical assessment, 6th ed. Elsevier. St. Louis, MO
3. Olson Kenneth A. (2016). Manual physical therapy of the spine. 2nd ed. Elsevier.
4. National Orthopaedic Division of the Canadian Physiotherapy Association (2020). Theory, Upper Quadrant & Lower Quadrant Clinical Manuals.

Assignments and Evaluation

Assessments	Description	%	Milestones Assessed
Participation	Informal spot checks	5%	1.3.4, 1.3.5, 1.3.6, 1.4.1 to 1.4.6, 1.5.1, 1.5.2, 1.6.2, 2.2.3, 2.4.3, 6.1.1, 6.1.2
Group Project	Patient Evaluation performed by group, filmed & submitted to instructor	25%	1.3.4, 1.3.5, 1.3.6, 1.4.1 to 1.4.6, 1.5.1, 1.5.2, 1.6.2, 2.2.3, 2.4.3, 6.1.1, 6.1.2
Final Exam	Written Exam 30% Practical Exam (OSCE) 40%	70%	1.1.1, 1.1.4, 1.1.5, 1.1.6, 1.2.1 to 1.2.4, 1.3.5, 1.3.7, 1.4.1, 1.4.3, 1.4.4, 1.4.5, 1.5.2 to 1.5.5, 1.5.7, 2.1.1 to 2.1.4, 2.3.1 to 2.3.5, 4.2.3, 4.2.4, 4.3.4, 6.1.1 to 6.1.4, 7.4.5, 7.4.6

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

Review of marks: Students who are dissatisfied with a mark must discuss the matter with the course instructor within **one calendar week** of receiving their mark. Following a discussion of the student's concerns, the instructor may decide to change their mark or leave it unchanged (please refer to the SPOT Rule & Regulations document found on the SPOT website for further details).

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. 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 and the Faculty of Medicine and Health Sciences value academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the [McGill University Code of Student Conduct and Disciplinary Procedures](#) and the [Faculty of Medicine and Health Sciences Code of Conduct](#)

L'université McGill et Faculté de Médecine et des Sciences de la Santé attachent une haute importance à l'honnêteté académique. Ils incombent 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 [Université de McGill Code de conduite de l'étudiant et des procédures disciplinaires](#) et [Faculté de médecine et des sciences de la santé](#)

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. This does not apply to courses in which acquiring proficiency in a language is one of the objectives.

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.

Equity, Diversity and Inclusion: The instructors in this course recognize the importance of equity, diversity and inclusion as well as safe learning environment. We understand the various backgrounds and identities that compose this group and want to ensure that these identities are respected. If you identify yourself to a group and would like to be acknowledged a certain way, please let us know via email or in-person. If you would like us to refer to you by a different name indicated in your student record, please also let us know via email or in-person.

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Accessible Learning Environment: As the instructors of this course, we endeavor to provide an inclusive and safe learning environment. If you experience barriers to learning in this course, please contact the instructor to arrange a time to discuss your situation. It would be helpful if you contact the [Student Accessibility and Achievement office](#) at 514-398-6009 before you do this. Please refer to the SPOT Process – McGill’s Student Accessibility and Achievement Office at: https://www.mcgill.ca/spot/files/spot/accommodation_information_pt_2022.pdf.

Mental Health: Many students may face mental health challenges that can impact not only their academic success but also their ability to thrive in our campus community. Please reach out for support when you need it; many [resources](#) are available on-campus, off-campus and online

Attendance: Students are expected to attend all lectures and are required to attend all clinical reasoning workshops and labs. Students who have missed more than 15% 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.

Dress Code: Students are expected to demonstrate professional behaviour and wear appropriate attire at all times, in accordance with clinical sites specific regulations. It is each student’s responsibility to have appropriate attire during all class assignments and learning activities. When working with clients or simulated patients, **students must be dressed professionally.**

*Appropriate attire must be worn during practical sessions (i.e. shorts and tank tops that allow for easy assessment of back and limbs being examined).

*Please adopt appropriate “hand hygiene” (regularly washing hands, clean and short fingernails) during hands-on techniques.

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. **Should you have any concerns, please do not hesitate to communicate with the course coordinators.**

Technology in Class: Your respectful and attentive presence is expected; therefore while you are permitted to use your laptop and tablets in class, it is understood that you will not be using any electronic devices for social purposes during class time. All devices should be on silent during class time and phone calls should only take place during the break or after class.

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Course evaluations: End-of-course evaluations are one of the ways that McGill works towards maintaining and improving the quality of courses and the students' learning experience. You will be notified by e-mail when the evaluations are available.

Additional policies governing academic issues which affect students can be found in the [Academic Rights and Responsibilities](#)

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