PHTH 580: Orthopaedic Clinical Reasoning and Skills

University of British Columbia

Department of Physical Therapy

Instructor: Carol Kennedy

Course objectives:

The course emphasizes the development of knowledge, clinical reasoning and clinical skills related to the practice of advanced orthopaedic manual and manipulative physiotherapy. The effective use of evidence in practice as well as case- based learning is included to provide a framework for appropriate assessment and treatment planning and implementation. In–class clinical skills content will be taught and evaluated in accordance with the Standards Document set by the International Federation of Orthopaedic Manipulative Physical Therapists (IFOMPT). Students will also engage in structured clinical mentorship hours, in accordance with the requirements of the International Federation of Orthopaedic Manipulative Physiotherapists (IFOMPT), under the direct supervision of a registered member of the Canadian Academy of Manipulative Physiotherapy

Learning outcomes:

Upon successful completion of this course learners will be able to:

1. Demonstrate application of advanced knowledge of anatomy, biomechanics and pathophysiology to the management of musculoskeletal conditions.
2. Identify, discuss, and demonstrate comprehension of recent scientific information pertaining to orthopaedic manipulative physical therapy.
3. Demonstrate successful integration of current evidence when applying safe and effective orthopaedic manipulative physical therapy.
4. Correctly and efficiently reach a differential physiotherapy diagnosis for clients presenting with complex musculoskeletal syndromes involving the upper and lower quadrants.
5. Demonstrate advanced assessment and treatment techniques of the musculoskeletal system, explain the rationale for their use in clinical practice, and demonstrate their integration into orthopaedic physical therapy practice.
6. Engage in advanced clinical reasoning and problem solving in the management of patients with complex musculoskeletal problems, identifying dominant pain mechanisms and biopsychosocial issues.

7. Construct and implement evidence based treatment plans for clients with complex musculoskeletal conditions in the clinical setting.
8. Demonstrate key professional competencies of advanced knowledge, advanced clinical reasoning, advanced clinical skills and communication/collaboration as outlined in the CPA specialization document.
9. Receive direct feedback and guidance from a recognized expert in the field.

Course Format

This course involves hands-on instruction delivered on site by a primary instructor and additional content experts at a minimum of a 10:1 ratio at the UBC Department of Physical Therapy plinth labs. It also includes a pass/fail clinical practicum assignment supervised by an approved physiotherapist with the FCAMPT credential (Fellow of the College of Advanced Manipulative Therapists).

Pre-requisite: As a pre-requisite for this course, the learner must show evidence of having completed a total of 30 hours of accumulated clinical hours in an orthopaedic and manual therapy physiotherapy practice – the practice must be overseen by a Fellow of the Canadian Academy of Manipulative Physiotherapists. A combination of direct and indirect supervision may be acceptable, as described below: at least 10 of these hours must be Direct Clinical Hours. The evidence of pre-requisite clinical hours must be reviewed and approved by the course instructor prior to enrolment.

The learner must also have completed RHSC 501 (or equivalent) prior to the start of this course.

Course Requirements

- Learners must attend all on-site lab sessions at UBC main campus. Due to the condensed nature of the onsite lab sessions, students who miss more than two days worth of on-site instruction will be required to withdraw from the program.
- The learner must nominate his or her mentors for approval from the course instructor
- Learners must be registrants or temporary registrants with the College of Physical Therapists of BC and must have current malpractice insurance.
- Learners must adhere to relevant college regulations and facility policies and procedures at all times while participating in their clinical practicum.
- Learners are expected to conduct themselves in a professional manner at all times while completing mentorship hours. Repeated unprofessional behaviours that are not consistent with feedback from instructors and/or mentors could result in failure in this course.

Assessment, Evaluation and Grading:

1) Examinations

Final written exam (conducted during the final on-site week of the course) 35%

- Multiple choice format
- Covering in-class content and supporting modules as well as required readings

3 practical exams (conducted during Lab Weeks 3, 6 and 7)

- Four station oral/practical exam
- examiners at each station using a standardized marking scheme set out for each skill being examined

Initial 5% (Mock Exam practice)

- Content – Level 2 reviewed clinical skills, and additional content from the first 3-week on-site session

Mid term 20%

- Content – all clinical skills taught in the first 3-week on-site session, with a focus on upper quadrant techniques as well as lumbar manipulation techniques

Final 25%

- Content – all clinical skills taught within the course, with a focus on Lower quadrant techniques and spinal manipulation in all regions

2) Clinical Mentorship Assignment 15%

Direct Clinical Hours = 85 Total 120 hours
Indirect Clinical Hours = 35 (See appendix A for description)
This is a Pass/Fail assignment related to the documented and signed completion of the specified number of both Direct and Indirect hours. "Pass" will be assigned a grade of 15%.

Required and recommended readings

- Grieve's Modern Musculoskeletal Physiotherapy, Fourth Edition. Edited by; Jull et al, Elsevier, Toronto 2015 ISBN#: 978-0-7020-5152-4
- Level 1- 3 Clinical Course Manuals for the Diploma of Advanced Orthopaedic Manual and Manipulative Physiotherapy Courses of the Orthopaedic Division of the Canadian Physiotherapy Association, 2011
- Level 4/5 Clinical Course Manual for the Diploma of Advanced Orthopaedic Manual and Manipulative Physiotherapy Courses of the Orthopaedic Division of the Canadian Physiotherapy Association, 2013
- A Workbook of the Manual Therapy Techniques – The Lower and Upper Quadrants. Whitmore, Gladney, Driver. 2005
- Additional references as assigned by the course instructor

Course Schedule (tentative)

Semester I

Lab Week One:

- Clinical evaluation of cervical stability
- Cervical spine assessment and treatment (mobilization, selected manipulation techniques)
- Neurodynamics assessment and treatment - Upper Quadrant
- Dizziness Differentiation

Lab Week Two**:**

- TMJ assessment and treatment
- Thoracic spine and rib cage assessment and treatment (mobilization, selected manipulation techniques)
- Shoulder girdle assessment and treatment (mobilization, selected manipulation techniques, specific exercise)

Lab Week Three:

- Elbow assessment and treatment (mobilization, selected manipulation techniques, specific exercise)
- Wrist and hand assessment and treatment (mobilization, selected manipulation and specific exercise)
- Cervical and thoracic exercise programs
- Selected lumbar manipulation techniques
- Regional Interdependence Model – integrating the upper quadrant
- **Mock practical exam & feedback interview**

Clinical Mentorship Hours

Learners must complete 40-50% of their required hours (as described above in the Clinical Mentorship Assignment) during the interlude between Weeks 1-3 and Weeks 4-6 of PHTH 580. The remaining hours must be completed prior to Week 7 of PHTH 580.

Semester II

Lab Week Four:

- Lumbar spine and pelvis assessment and treatment (mobilization, selected manipulation techniques, specific exercise)
- Hip assessment and treatment (mobilization, selected manipulation and specific exercise)
- Management of Chronic Pain

Lab Week Five:

- Knee assessment and treatment (mobilization, selected manipulation techniques, specific exercise)
- The functional foot assessment and treatment (mobilization, selected manipulation techniques, specific exercise)
- Analysis of gait and muscle imbalance in the lower extremity
- LQ Exercise – functional integration and higher end rehab
- LQ Neurodynamics

Lab Week Six:

- Advanced manipulation techniques in the upper and mid-cervical spine as related to case based scenarios
- Thoraco-lumbar junction assessment and treatment (mobilization, selected manipulation techniques, specific exercise)
- The CT junction assessment and treatment (mobilization, selected manipulation techniques, specific exercise)
- Advanced lumbar spine and pelvis manual therapy techniques
- Regional Interdependence – integrating the whole body
- **Practical exam & feedback interview**

Semester Final

Lab Week Seven

- Guest lecturers on selected topics
- Review and coaching of advanced clinical skills including manipulations
- **Final practical Exam & feedback interview**
- **Final Written Exam**

Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

A more detailed description of academic integrity, including the University's policies and procedures, may be found in the Academic Calendar at http://calendar.ubc.ca/vancouver/index.cfm?tree=3,54,111,0.

Appendix A – Clinical Mentorship Assignment

Direct Clinical Hours

Supervision must be with a physiotherapist who is registered as a Fellow of the Canadian Academy of Manipulative Physiotherapists and is approved by the course instructor.

1. Direct patient care may consist of any of the following activities
- Shadowing/co-treating at the preceptor's clinic with a 1 to 4:1Learner: Mentor ratio. The Mentor should attempt to be present for at least 20 minutes of every hour of patient care by the learner.
- Supervision of assessment/treatment at the learner's clinic in which the Mentor attends the learner's clinic to provide 1 to 4:1 feedback
- The Mentor may provide 1 to 2 hours of extra instruction at the end of the day or the next day and/or visit in regards to practicing specific techniques encountered while treating actual patients.

2. Study group with your mentor performing various Mock Scenarios and/or practical Clinical Reasoning cases
- Mentor provides a mock scenario using volunteers/other physiotherapists who are not actual patients. The Learner: Mentor ratio can vary from 1 to 4:1.

3. Controlled Teaching
- Patient care outside of regular clinic hours focused on certain conditions with actual patients. Ratio of Learner: Mentor can vary from a 1 to 4:1 ratio.

Indirect Clinical Hours

Learners work in peer group sessions in an orthopaedic and manual therapy physiotherapy practice, and the sessions are conducted without a mentor present. Clinical scenarios or cases are presented and/or discussed and used to practice clinical reasoning and manual therapy skills

- Hours spent in small study groups or "prep groups"
- Peer presentations i.e. case study presentations
- On-line case study discussions with fellow learners