POTH 624 MASTER'S PROJECT

Credits: 6

Coordinator: Patricia McKinley, PT, PhD (Co-coordinator)
Sara Ahmed, PT, PhD (Co-coordinator)
Barbara Mazer, BSc(OT), PhD (Co-coordinator)

Course Structure: Team Projects (four-five students per project) will be supervised by Faculty and clinical supervisors depending upon project.

TIME FRAME: Fall M1 – End of Summer M2

General course requirements: Seminars / meetings will be given by the course coordinators throughout the calendar year September – August. In addition, course content within the Advanced Research Methods course will include information and assignments related to conducted the individual research projects. The content of these seminars, according to need, may include the following:

- U3/QY April: information session meeting for project execution
- M1 September: an orientation to the course, including guidelines for submission to a Research Ethics committee, project development and requirements for obtaining a passing grade.
- M1 Fall within POTH 612: a 3 wk 3 hr/week block on development of a protocol for the project, will specifically target methodology related to protocol development
- M2 July: meeting for organizing project completion and power point presentations to supervisors and clinicians

Specific course requirements: Each team will be required to meet with the Supervisor(s) as follows for a minimum of 6-8 meetings and 1-2 hours per meeting:

- Development of an action plan and student letter of agreement (September M1)
- Project progress report (December, M1)
- Project progress report (March-April, M1)
- Team meetings during data collection period as necessary, approximately once per month (May- mid-July)
- Outline and rough draft of paper in article format for a specific journal (July, M2)
- Individual discussion (August, M2)
- Final Paper due (August 24 M2)
- Oral presentation (Last week of August M2)

Purpose and Objectives:

The purpose of this Master's project is to conduct a scholarly piece of work that yields information related to rehabilitation that can be presented at a conference and/or is publishable. The specific goal for the student is to develop research knowledge and skills that are clinically relevant.

Upon completion of this course, the student will be able to:

1. Design a research question that is pertinent to rehabilitation or the development of a clinical program
2. Conceptualize a project that is pertinent to rehabilitation
3. Conduct a research study that yields information related to rehabilitation and can be presented at national or international conferences and/or is suitable for publication in a clinically related journal.

Examples of Project Categories:

1. **Survey**: Plan and conduct a survey of students, patients, informal caregivers, health professionals and others on a topic related to rehabilitation
2. **Qualitative Study**: a proposal that would include rationale, literature review and methods for qualitative research of a question relevant to rehabilitation that may include collection and/or analysis of data in a limited scope (preliminary focus groups etc).
3. **Clinical Practice Guidelines (CPG)** Take existing clinical guidelines or a critical care map for a specific condition and review and update supporting evidence in a formal written recommendation for practice that includes a full and documented rationale.
4. **Program Evaluation**: In collaboration with a clinical department, plan an evaluation of a specific program that might include development of a survey, analysis of pre-existing data sets, development of data sets, review of the literature, case studies or preliminary data.
5. **Systematic Review**: Systematically examine the research related to a specific clinical question using a defined protocol and criteria for evaluation, review the evidence on a topic and prepare your findings for publication and presentation.
6. **Knowledge Translation**: Develop a website or CD module related to rehabilitation for use by patients, caregivers, teachers or health professionals. Develop a teaching aid for patients, caregivers, or health professionals.
7. **Measurement Development**: Develop a proposal for a research project that includes rationale, literature review and methodology to evaluate the psychometric properties of a measure or tool used in the practice of physical or occupational therapy. May include a small pilot study requiring a limited amount of data collection and/or data analysis.

8. **Quantitative Study**: Development and implementation of research methodology and collection and analysis of data to answer a specific research question

Required Text: None

Student Assignment and Evaluation:

A written and oral component will be expected with the written component worth 70% and the oral component worth 30%. To pass the course, the final presentation must have at least 10 of the 33 components in the evaluation grid. As well the following elements are required:

- Attendance and participation at group meetings
- Summary reports of the group meetings
- Each participant will have to write up a discussion for their project independently, that will be graded separately.
- Attendance at seminar meetings for POTH 624

Written Presentation (70%)

- Introduction (research question, rationale)
- Background / literature review
- Methodology
- Results
- Discussion
- *Individual component (as determined by the supervisors) 20%
- General presentation (quality of language, organization of text)

TOTAL: /70

Oral Presentation – Podium/Poster presentation (30%)

Visual presentation

- Appropriateness of material (tables, figures, etc.)
- Quality of language
- Organization of information and overall appearance

Oral presentation

- Selection of important components of project
- Demonstration of knowledge
- Clarity of presentation
- Capacity to answer questions

TOTAL: /30

Learning Objectives/Evaluation Criteria

Need to meet a minimum of **10** of **33** learning objectives

INTRODUCTION / BACKGROUND	
Formulate a research question / program objective	Required
Conduct a literature search	Required
Review the literature (overview of the literature)	Required
Extensive and critical review of the literature	
Develop background information supporting research question/program	Required
Present/ apply a theoretical model of the relationships under study	
Conduct a systematic literature review	
METHODOLOGY/ DATA COLLECTION	
Choose measures to answer the question / evaluate clinical program	
Develop a measure	
Develop or refining a questionnaire	
Test the measurement properties of a measure or questionnaire	
Write a consent form/prepare documents for ethics committee	
Develop clinical program plan	
Develop promotional or educational material for clinical program	
Implement clinical program	
Evaluate clinical program	
Recruit subjects into a research study	
Collect data through interviews / physical tests / focus groups	
Manage and co-ordinate study	
Choose a design to answer the question	
Create a computerized method of managing the data (database design)	
Enter data into a computerized data base	
Verify accuracy and completeness of data	
RESULTS AND ANALYSIS	
Manipulate data to create new variables	
Calculate descriptive statistics	
Perform basic inferential statistics (e.g. t-tests, Chi-square tests, etc.)	
Use complex statistical models	
Perform basic qualitative analyses (e.g. categorizing and contextualizing, reflexivity, transparency, constant comparison, etc.)	
Perform complex qualitative analyses (e.g. ethnography, art-based analyses, etc.)	
PRESENTATION OF RESULTS AND CONCLUSION	
Interpret results from statistical or qualitative analyses / systematic literature review	
Create tables to present results	

Create graphs of results	
Create PowerPoint presentation for conference or clinical rounds	Required
Write article for journal publication	

Project Selection Process

There will be a list of projects available for selection by each student in late May (M1). The students will go to an orientation meeting where the projects will be briefly described and the selection process explained to them. Each student will sign up for projects in order of preference (1st, 2nd , 3rd, , 4th and 5th). Before the first week of school in September, the project teams will be announced.

***NB*: Students must select a project that is identified as being within their discipline (PT or OT) or interdisciplinary. Faculty and Clinicians will identify how many OT and PT students are required for each project**

The projects will be selected from a list of projects put forth by clinicians and faculty each year, and the final selection will be determined by the breadth and diversity of the projects as well as the balance for Occupational and Physical Therapy students. This list of projects will be developed during two clinical workshops held in winter term. For the first workshop clinicians from affiliated rehabilitation sites will develop their ideas into a clinical research question that can be addressed in a short time period by a group of 4-5 students. At the second workshop this question will be further refined with the aid of faculty, who will then align themselves with a specific clinical project for the next group of M1 students (September).

The Advisory Committee

Students will develop their group projects under the direction of their Project Advisory committee and the coordinator of the POTH 624 course. The committee will be made up of a Supervisor from the Faculty of P and OT, and a clinical expert/consultant.

Specific Duties

Primary Faculty Supervisor: The primary faculty supervisor provides advice and assistance in the refinement of the research question (with the clinical consultant) that will be developed by the student group into a research project. The supervisor is responsible for the following:

- Ensuring necessary procedures with respect to permission, ethics, institutional and academic requirements are met
- Reading and commenting on progressive documents of the project
- Assisting with arrangements for 4 research committee meetings
- Attending 4 research committee meetings and the final research day presentation
- Assisting with grading of the project
- Liaising with any outside consultants or agencies required for completion of the project

Nb: where the primary faculty supervisor is a faculty research associate, the expert faculty professor appointed to the project will only be responsible for

- Providing expertise in the research question
- Attending 4 research committee meetings and the final research day presentation
- Reading and commenting on final protocol
- Assisting with grading of the project

Clinical Expert/ Consultant: A health care professional (Physical Therapist, Occupational Therapist, Physician, etc) in rehabilitation or other area of service delivery, will be appointed as a clinical expert/consultant to assist in the development and completion of the project. The clinical expert will have attended a workshop to develop a clinical question that is suitable for a group project and will have become aligned with a specific faculty member. The Clinical expert will serve as an advisor and will contribute to the evaluation of the completed project. The role of the clinical consultant will include reading and commenting on progressive documents of the project, attending four research meetings and the final research day presentation, in addition to attending the workshop for project development.

Timeline

August -September M1

- Selection of projects completed
- POTH 612: selection of methodology blocks
- Seminars in POTH 624
- Meeting 1 with Advisory committee

September M1-April M1

- Initial work on research projects (e.g. literature review, etc)

November-December M1

- Meeting 2 with advisors development of methodology block for POTH 612; organize paper work for scientific review and ethics (where necessary)
- Final requirement for POTH 612 include completing a concept map for the project, conducting and writing up a short literature review (2-3 pages), a brief research proposal including a summary of the methods, and a timeline of the project (preparation for ethics submission)

January or February

- Meeting with supervisor to evaluate progress and target goals for winter semester, and to finish Ethics forms if necessary

March-April

- Meeting with Advisory committee to finalize plan for data collection
- Progress report meeting with POTH 624 coordinators
- Present project to Ethics Committee where necessary and make corrections as required

May – June M2

- Conduct the project/ Data collection

July

- Meeting with Advisory Committee to present and discuss results

August

- Writing of final report and individual discussions
- Power point presentation to be presented for the clinical site
- Short presentation at McGill during Research Presentation Day
- Evaluation of projects: oral and written

Literature Review:

All groups must use the program Endnote for their literature searches and literature review. This program will facilitate keeping track of the literature and recording of the references in the written report.

Guidelines for Time Commitment for Working on the Project and For Summer Vacation:

All students must plan to be available to work on their project approximately 35-40 hours per week with at least 25 hours available during weekday daytime hours (Monday-Friday 8-5) in order to work together with their team supervisors, and to complete the tasks that must be done during the work day (meeting with staff, doing data collection, etc).

Each student is entitled to take 2 weeks of vacation over the 4 months of summer (May-August). The timing of this vacation must be approved by the Faculty Supervisor as well as the other students in the group to ensure that their absence will not affect the progress of the project.

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. Students must pass the all of the components of the evaluation: the oral presentation, the written report, and the individual written component.

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/ 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/)."

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.

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)."

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.

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