

POTH 401 RESEARCH METHODS

Credits: 3

Prerequisites: Successful completion of previous year courses.

Instructors: Sabrina Figueiredo, PT, PhD (Course Coordinator)

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Guest lecturers (see course schedule)

Course Objective: The purpose of this course is to expand knowledge and skills related to rehabilitation research, in order to critically appraise scientific evidence and to actively participate in clinical research projects.

Course Structure: Two (2) 1.5 sessions per week for 13 weeks. Lectures or self-directed sessions as appropriate. Structured seminars presented by groups of students on assigned research papers. The short question period that follows will also be led by assigned groups of students that rotate on a weekly basis. Polling will be used in this course to enhance engagement and increase interactivity.

Student Learning Objectives: This course will cover essential competencies and milestones related to the domains of **scholarship** and **collaboration**. Upon completion of this course the student will:

- Use an evidence-informed approach in practice. More specifically students will:

Learning objectives	Milestones
Understand the role of rehabilitation research in evidence-based practice.	6.1.1

- Engage in scholarly inquiry. More specifically students will:

Learning objectives	Milestones
Identify the components and formulate clinical and research questions related to rehabilitation.	6.2.2
Access reliable sources of information.	6.2.3
Carry out critical appraisal of research articles, and formulate a summary of appraisal findings.	6.2.4

Learning objectives	Milestones
Use appropriate terminology for describing and classifying study variables and outcome measures.	6.2.6
Describe the key features, strengths, weaknesses, and sources of bias of various experimental and observational study designs (cross sectional studies and surveys, case-control, cohort, randomized control trial, single subject, cross-over, and quasi-experimental).	6.2.6
Identify the steps and methods of a systematic review and interpret the basic findings of a systematic review.	6.2.6
Understand common approaches and methods of qualitative research.	6.2.6
Apply principles of knowledge translation to clinical examples, and identify common barriers to knowledge translation.	6.2.6
Understand and implement the key elements and processes in research ethics.	6.2.1
Describe the major types of economic and cost-effectiveness analyses, and calculate indices that reflect the benefits of health interventions.	6.2.6

- Contribute to the learning of others. More specifically students will:

Learning objectives	Milestones
Develop skills and confidence in presenting published primary scientific research to an audience of your peers, including the ability to ask and answer questions.	6.5.2

- Facilitate collaborative relationships and contribute to effective teamwork. More specifically students will:

Learning objectives	Milestones
Work collaboratively in intra and/or inter-professional groups.	3.2.4; 3.25; 3.3.1; 3.3.3; 3.3.4

Course Content: See class schedule

Course Materials:

- **Required text:**

Rehabilitation Research. 4th ed. Carter, R.E., Lubinsky J., Domholdt E. Elsevier Saunders; St. Louis, Missouri, 2011.

ISOQOL Dictionary of Quality of Life and Health Outcomes Measurements. 1st ed. Mayo, N. ISOQOL, 2016.

- **Additional readings:** Additional readings will be assigned during the course.

Information about Polling:

- During a class with polling questions, you will respond to questions from the instructor from a personal device (smartphone, tablet, or laptop).
- Students should come to class with their devices charged and [connected to the Internet](#).
- Polling will be available through www.mcgill.ca/polling.
- For your responses to be connected to your username for participation grading, you **MUST** first register for an account by clicking on “Register Your Account” at www.mcgill.ca/polling and logging in with your McGill username and password.
- For any technical problems with polling, please contact the IT Service Desk: <http://www.mcgill.ca/it/get-started-it/need-help>.
- If you do not have a phone, tablet, or laptop to use to respond to polling questions, please contact the instructor immediately in order for appropriate arrangements to be made.
- To maintain a safe and respectful classroom environment, please ensure that any polling responses you submit are appropriate and relevant to the question asked. Please note that unless the poll is labelled as anonymous, your responses are identifiable to the instructor. Please see the [Code of Student Conduct and Disciplinary Procedures](#).

Student Assignment and Evaluation:

Assignment/Evaluation	Marks	Milestones
Assignment 1	15	6.2.2
Midterm exam	30	6.1.1; 6.2.2; 6.2.6
Assignment 2	10	6.2.3
Group presentation	10	6.5.2; 3.2.4; 3.2.5; 3.3.1; 3.3.3; 3.3.4
Final Paper	25	6.2.4; 3.2.4; 3.2.5; 3.3.1; 3.3.3; 3.3.4
Participation*	10	6.1.1; 6.2.2; 6.2.6

*Participation graded by polling will be delayed until the end of the add/drop period.

The content and/or evaluation scheme in this course is subject to change.

Special Requirements for Course Completion and Program Continuation:

In order to pass the course, a grade of at least C+ (60%) must be obtained as a total course mark. Please refer to the appropriate section in the Health Sciences Calendar on University regulations regarding final and supplemental examinations. The student's mark will be affected by late submission of the assignment.

This course falls under the regulations concerning individual and group evaluation. Please refer to the section on marks in the Rules and Regulations for Student Evaluation and Promotion of the Occupational and Physical Therapy Course Guides.

Plagiarism/Academic Integrity: McGill University and the Faculty of Medicine 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 Code of Conduct](#).

Since polling records may be used to compute a portion of course grades, **responding as someone other than yourself is considered an academic offense**. During class, possession of more than one response device or using the credentials of another student will be interpreted as intent to commit an academic offense.

Please refer to McGill's policy on Academic Integrity and Code of Conduct (see <http://www.mcgill.ca/deanofstudents/plagiarism> and <https://www.mcgill.ca/students/srr/honest>)

"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 <https://www.mcgill.ca/students/srr/honest>."

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 514 398-6009 before you do this.