

## MSc Course-based Option of the Rehabilitation Science (RS) Graduate Program

### COURSE DESCRIPTIONS

To graduate, you must have:

RS705

RS706

RS708

three (3) electives

plus

RS730 or RS735 or

Two (2) additional electives

### MANDATORY COURSES:

#### **RS705 *Evaluating Sources of Evidence***

Units: 3

Offered: Fall and Winter Terms

Pre-requisites: Enrolment in the MSc (RS) Graduate Program or permission of the Program Coordinator

This course is designed for occupational therapists, physical therapists and practitioners in other rehabilitation disciplines who want to acquire the knowledge and skills to interpret and apply evidence in practice. Learners may have some knowledge about how to obtain information but they will develop advanced knowledge and skills to apply evidence appropriately to practice. The course emphasizes the development of knowledge and skills for the critical review and use of evidence in making practice decisions that lead to the best client outcomes. Approaches to the effective use of evidence in practice are included as well as the required background research, methods of synthesizing information and the practicalities in applying evidence to practice.

This course focusses on the development of knowledge and skills for the critical review and use of evidence in rehabilitation practice. Students will examine evidence-based rehabilitation principles and methods to search for, evaluate and disseminate knowledge into practice. We do this by:

- introducing you to some basic principles and ideas about evidence-based practice;
- helping you to find evidence and judge its value to your practice, and to rehabilitation in general;
- designing discussions and assignments that will help you to analyze and evaluate what you have learned;
- asking you to reflect on the course content, readings, and your ideas and experiences about evidence-based practice, and to examine different views about evidence-based practice; and,
- having you work collaboratively with other learners in the discussions, in order to gain a broader perspective on issues related to evidence-based practice in rehabilitation.

### **RS706 *Measurement in Rehabilitation***

Units: 3

Offered: Winter Term

Pre-requisites: Enrolment in the MSc (RS) Graduate Program or permission of the Program Coordinator

This course is designed for occupational therapists, physiotherapists and practitioners in other rehabilitation disciplines who want to acquire an understanding of measurement theory. This course introduces essential measurement concepts and demonstrates how these concepts can be applied to enhance clinical decision-making in rehabilitation practice. Students will examine theory of measurements as it relates to practice and strategies for selecting and using measurement in rehabilitation practice.

Specific topics include the reasons for applying measurement in rehabilitation practice, an overview of measurement theory as it relates to clinical practice, search strategies for locating measures, the interpretation of a measured value for a specific client, critical appraisal skills to evaluate measures and select the best measure from a number of competing measures, and considerations when implementing a new measure in clinical practice.

The knowledge you acquire in this course can be applied to better understanding the literature reporting the results from clinical measurement studies, and to enhance clinical decisions that are based on measurements of the health status of the patients/clients. As a result, this course will complement and enhance your clinical practice.

### **RS708 *Clinical Reasoning and Decision-Making***

Units: 3

Offered: Spring/Summer Term

Pre-requisites: Enrolment in the MSc (RS) Graduate Program or permission of the Program Coordinator

The demand for accountable health practice that is evidence-based requires therapists to be more aware of approaches to reasoning and decision-making, to use conceptual frameworks to guide and justify their practice decisions, and to have the knowledge and skills for reflective practice. Reasoning is the process by which rehabilitation practitioners consider alternatives and make decisions on a day to day basis. Guided by relevant conceptual frameworks, learners in this course use strategies and approaches, such as critical reflection, narratives, and assessment of the literature and other evidence to improve their reasoning and decision-making skills, and other practitioners in their rehabilitation context.

### **ELECTIVES:**

#### **RS702 *Participation & Community Living***

Units: 3

Offered: Spring/Summer Term

Pre-requisite: Enrolment in RS Graduate Program or permission of the instructor. Anti: RS722

Participation in community life is regarded by the World Health Organization (WHO) as the optimal goal of rehabilitation. Participation refers to the active engagement of humans in sets of everyday activities - personal care, physical activity, work, school, and leisure and recreation. This course will provide students with an understanding of the concept of participation as delineated in the World Health Organization International Classification of Functioning, Disability and Health (ICF). Using a problem-based seminar format, students will review the predominant definitions and theories of participation and community living, discuss and critique them in relation to current research, measurement methods and application to rehabilitation.

### **RS703 *Special Topics in Clinical Sciences***

Units: 3

Offered: Fall, Winter, and Spring/Summer Terms

Pre-requisites: Enrolment in RS Graduate Program or permission of the instructor. Diagnostic Imaging and Differential Diagnosis units are available to OT, PT, Chiropractor students only or permission from the Assistant Dean of the RS Graduate Program

This selected topics course is designed to allow the development of courses that cover the leading edge of thinking about specific topics/issues in Rehabilitation Science. The specific topics will be developed in response to needs identified by faculty or students. (Note: an example of a special topic might be to provide an increased understanding of evidenced-based practice in orthopaedic rehabilitation with focus on two areas: methodological content and orthopaedic content. Methodological content to include: measurement (reliability, validity, responsiveness); diagnostic accuracy; and therapeutic effectiveness.)

Students' knowledge will be advanced in select clinical topics of basic, behavioural and medical sciences relevant to neuro-musculoskeletal (MSK) disorders and apply knowledge to case management.

Students will select from a menu of content modules. The can include: Pain Sciences, Psychology Screening for MSK Rehabilitation, Medical Screening/Conditions for MSK rehabilitation, essentials in MSK Imaging, essentials in Pharmacology for MSK Rehabilitation; MSK Spinal Conditions; and, others in development.

### **RS704 *Independent Study***

Units: 3

Offered: Fall, Winter, and Spring/Summer Terms

Pre-requisites: Must be approved by Program Coordinator before registering

This course is designed to allow students to tailor their learning by selecting topics in Rehabilitation Science relevant to their area of study interest and do advance work in this area. A student will identify a topic, and in consultation with a faculty member with expertise in the area, a course outline will be developed that is tailor-made to meet the student's particular requirement. The student will then study under the guidance of a faculty member and examine the pertinent literature critically. The course may be taken only once during the student's graduate studies.

The complete form must be submitted to the Program Coordinator at least four (4) weeks before the beginning of the academic term in which the course will be taken. It must be reviewed by the RS Curriculum Committee for approval before the course begins.

### **RS710 *Facilitating Learning in Rehabilitation Contexts***

Units: 3

Offered: Fall Term

Pre-requisites: Enrolment in the RS Graduate Program or permission of the Program Coordinator

This course is intended for occupational therapists, physiotherapists, and practitioners in other health and rehabilitation disciplines who wish to acquire knowledge of theory and research that informs educational practices commonly used in rehabilitation practice. The course emphasizes the development of knowledge related to: perspectives on teaching and learning including the social context of learning, context-based theories of learning, and other learning theories and learning principles; understanding the nature of the learner including assessment of learning needs, learning styles, and motivation and health

behaviours and; educational techniques and strategies including behavioural objectives, instructional materials and methods, and evaluation. Radical changes in health care delivery, the gradual shift to client-centred care and an evidence-based approach to practice, as well as the greater accessibility to health care information have changed the nature of the client–practitioner relationship. As a result, professional organizations governing rehabilitation disciplines have made it clear that practitioners have a responsibility to engage in life-long learning and play a greater role in facilitating effective learning for clients, family members, other professionals and students.

This course is designed to examine the professional's role as educator and to stimulate a critical analysis of taken-for-granted assumptions about this integral aspect of practice. Learning throughout the course will be situated in the health rehabilitation environment and focus on the provision of rehabilitation service through education of clients and families, and instruction of colleagues and students. Participants will apply current learning theories and effective teaching strategies to the design, implementation and evaluation of creative, innovative and positive learning experiences for these targeted learners. The course is based on the assumptions that instruction is learner-centered and that effective learning is the outcome of a collaborative process between learner and facilitator.

The goal of the course is that participants will be able to plan, implement and evaluate effective learning experiences for clients, families, colleagues or students. In achieving this goal, course participants will incorporate principles of adult learning and the findings of the assessments of learning needs and preferences of the targeted learners, and use effective instructional strategies and evaluation methods.

### ***RS715 Advanced Orthopaedic Manipulative Physiotherapy (OMPT)***

Units: 6

Offered: Winter Term

Pre-requisites and Qualifications for admission: A candidate for this program must:

- Hold a four-year pass or honours or graduate entry master or professional doctorate degree in physiotherapy; and,
- Have completed five (5) years full-time relevant professional experience (or equivalent) with two (2) years in a speciality area.
- Produce evidence of continuing professional education including Level III certificate from Canadian Physiotherapy Association (CPA) Orthopaedic Division or equivalent; and,
- Meet admission requirements to the MSc (RS) Course-based Program or permission of the instructor.

This course is designed for graduate physiotherapists who want to obtain advanced clinical skills in orthopedic manipulative musculoskeletal physiotherapy (OMPT) and is designed to comply with requirement of both the Canadian Physiotherapy Association's Clinical Specialty Program and international standards for accreditation. Students apply basic science and clinical evidence to advanced evidence-based clinical reasoning. Students will acquire advanced clinical skills in manipulative physiotherapy, therapeutic exercise and patient education using self-management techniques to provide comprehensive rehabilitation. This course will integrate advanced orthopaedic assessment, vestibular screening, pain assessment, psycho-behavioural screening, neuromodular screening, diagnostics/prognosis, risk/causation assessment, and neuro-musculoskeletal treatment. It has a 150 hour clinical mentorship requirement including engagement in teaching and mentored clinical practice.

### *RS770 Leadership in Rehabilitation*

Units: 3

Offered: Fall Term

Pre-requisites: Enrolment in the RS Graduate Program or permission of the Program Coordinator

This course is designed for occupational therapists, physiotherapists and practitioners in other rehabilitation disciplines who want to acquire the knowledge and skills to develop as leaders in their current and future practice. The course emphasizes the development of knowledge regarding theories of leadership and the application of learning at the level of self, profession, and organizations. The skills of effective leadership are also explored. Specific topics include major theories of leadership, leadership styles, skills, principles, practices, trends and issues of leadership in rehabilitation settings, leadership within organizations, the culture of leadership, and application to current practice.

### *RS771 Work Organization and Health*

Units: 3

Offered Winter Term

Pre-requisites: Enrolment in the RS Graduate Program or permission of the Program Coordinator

This online course addresses the political, economic, health system and workplace factors that contribute to workplace environments and the health of workers. Integration of knowledge across a broad spectrum of disciplines will inform conceptual frameworks for how the health of the working population is affected by these broad contexts. Sessions will start as broad-based problems that will develop content knowledge in specific areas/disciplines and then move on to problems that target specific types of health issues requiring students to integrate knowledge across those different areas/disciplines. Students will study problems on the determinants of health of workers in a variety of contexts using a transdisciplinary approach.

### *RS772 Introduction to Qualitative Research*

Units: 3

Offered: Fall Term

Pre-requisites: Enrolment in the RS Graduate Program or permission of the Program Coordinator

This course is designed for occupational therapists, physiotherapists, and practitioners in other rehabilitation disciplines who have had little or no exposure to qualitative research, wish to acquire an introductory knowledge of qualitative research philosophy and methods, and want to gain an understanding of how qualitative research is conducted. The course emphasizes the development of knowledge related to:

1. The philosophical and theoretical foundations of qualitative research;
2. The formulation of qualitative research questions;
3. The major qualitative research approaches (phenomenology, grounded theory, ethnography, among others);
4. Primary techniques for gathering data including individual interviews, focus groups, participant observation, and documents; and,
5. Data management, analysis, and interpretation.

This course is intended to prepare learners to:

1. Understand the foundations of qualitative research;
2. Engage in critical evaluation of research, especially with respect to issues regarding research design and methods;
3. Recognize research opportunities in clinical practice;
4. Participate in the research process as knowledgeable and strong collaborators; and,

5. Integrate learning through completion of a qualitative research assignment.

### RS773 *Knowledge Translation in Rehabilitation Practice*

Units: 3

Offered: Winter Term

Pre-requisites: Enrolment in the RS Graduate Program or permission of the Program Coordinator

This course is designed for occupational therapists, physiotherapists and practitioners in other rehabilitation disciplines who want to acquire an understanding of knowledge translation (KT) and be able to apply knowledge translation principles to practice. The course emphasizes understanding what knowledge translation is, the relationship between knowledge translation and evidence-based practice, the dominant theories, models and frameworks that are used in knowledge translation, how knowledge synthesis is achieved, and various tools and resources useful for knowledge translation. The course will encourage development of these skills at the level of individual practitioners as well as the programs in which they work, and the organizational systems in which they operate. Focus will be placed on the identification of an evidence-to-practice gap specific to the student's own clinical context. The students will identify, examine and develop a strategy for closing this gap. Specific topics include what is known about best approaches to knowledge translation in health care including rehabilitation, the Knowledge to Action cycle and its application, the diversity of theories and models that support this field, tools and resources for KT, integrated KT as an approach to advancing the field, and KT within organizational systems.

### RS774 *Exploring Research Methods*

Units: 3

Offered: Spring/Summer Term

Pre-requisites: Enrolment in the RS Graduate Program, RS705 *Evaluating Sources of Evidence* and RS706 *Measurement in Rehabilitation* or permission of the Program Coordinator

This course is designed for occupational therapists, physiotherapists, and practitioners in other rehabilitation disciplines who wish to acquire an *introductory* knowledge of research methods. The course emphasizes the development of knowledge related to: (1) major research paradigms in rehabilitation science; (2) how research paradigms relate to the formulation of research questions and the subsequent use of particular qualitative or quantitative research approaches/designs; (3) major qualitative research approaches (phenomenology, grounded theory, ethnography) and their corresponding methods, including individual interviews, focus groups, and participant observation; and (4) major quantitative research designs (observational/descriptive, quasi-experimental, and experimental), their corresponding methods, and issues in conducting quantitative research (e.g., sampling, measurement, and hypothesis testing).

This course is intended to prepare learners to: (1) understand the foundations of clinical research, (2) engage in critical evaluation of research, especially with respect to issues regarding research design and methods, (3) recognize research opportunities in clinical practice, and (4) participate in the research process as knowledgeable and strong collaborators.

## RESEARCH PAPERS:

### RS730 *The Scholarly Paper*

Units: 6

Offered: Fall and Winter Terms

Pre-requisites: Enrolment in the RS Graduate Program or permission of the Program Coordinator.

Students interested in taking this course should contact the Program Coordinator before registering.

This full course is designed as an opportunity for Course-based MSc students to demonstrate, in writing, their ability to integrate ideas that reflect current knowledge in areas of rehabilitation practice, education, research, and/or policy. The scholarly paper is to demonstrate integrative thinking at a general and abstract level. A student will identify a topic, and in consultation with a faculty member with expertise in the area develop a proposal that is individualized to the student's area of interest. The student will then develop the paper under the guidance of a faculty member. The paper must be 25 to 30 pages, excluding references and appendices. The paper does not involve the collection or analysis of primary data or the conduct of research with subjects. It is a scholarly essay, not a thesis.

### RS735 *Rehabilitation Research Project*

Units: 6

Offered: Fall Term

Pre-requisites: Enrolment in the RS Graduate Program or permission of the Program Coordinator.

Students interested in taking this course should contact the Program Coordinator before registering.

The Research Project in Rehabilitation provides experiential learning in the conduct of rehabilitation research. It will typically be initiated by students who have completed (or are concurrently completing) the measurement course, and ideally after taking a research methods course. Learners will develop research knowledge, skills and methodology through participation in research. Learners may identify a mentor who is willing to supervise a research project of the learner's choice or choose from a menu of projects provided by faculty. External mentors must have a supervisory graduate appointment with the School of Rehabilitation Science (SRS) or work with a co-mentor from the Rehabilitation Science faculty. Mentors may continue to work with learners to complete the submission process and follow-up – although this not mandated and is a noncredit activity. The full course is specifically designed to allow the learner to conduct a small supervised research project in their area of interest. The expected outcome of this course is submission of a research paper that is ready for submission for publication.

Knowledge and understanding of the research process will be gained through the role, which each learner negotiates within a research project and by working in collaboration with other researchers on the project. Learners may participate in some or all of the following: Formulating a research question, describing the research objectives and methods, carrying out data collection and/or data analysis, writing a scholarly paper, and suitable for a scientific conference. The exact roles are first described by the supervisor in the project posting; and, later refined and agreed upon by the learner and supervisor. The project will be supervised by a faculty member or a clinician-scientist, possibly including other co-investigators in the process. The course is overseen by the Assistant Dean of Rehabilitation Science.

The course will start with preliminary online modules that introduce the course, research ethics, and strategies for independent learning of research skills. At this time the matching process will be described and initiated. Structured modules will consist of approximately 10 hours of learning with the remainder coming from project experience and mentorship with the supervisor. All supervisor-learner pairs are required to develop and submit their completed *Team and Project Agreement Forms* to the Assistant Dean of Rehabilitation Science.