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Faculty of  
**Medicine and  
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Faculté de  
**médecine et des  
sciences de la santé**

## **Gerald Bronfman Department of Oncology**



**Announcing a New Graduate Course:**

**ONCO 625**

**Quality Improvement:  
Principles and Methods**

(Fall 2022 Session)

Open to all graduate students enrolled in  
the Faculty of Medicine and Health Sciences

Graduate Diploma in Oncology students are  
encouraged to take this course

**Course Coordinator**

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**Introduction:** Quality improvement (QI) methods historically have been used in industries such as aviation and car manufacturing to continuously evaluate systems and processes with the goal of improving safety and performance. In healthcare, QI initiatives have been employed to assess, change, or adapt procedures and processes to enhance patient safety and the quality of care offered to patients. QI initiatives have been used to improve a range of procedures in hospital settings including surgical care, nursing care, medical records documentation etc. Examples of QI initiatives that have led to substantial improvements in care quality include medication reconciliation during hospitalization, availability of code blue teams, the development of the surgical checklist, implementation of chemotherapy standardized order sets, and use of the Serious Illness Conversation Guide.

**Course Description:** Basic principles and methodology of quality improvement in health services delivery. Topics include developing and conducting quality improvement initiatives, data collection, data analysis and implementation of change.

**Language of Instruction:** English is the language of instruction, but in accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or 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.

**Learning Outcomes:** By the end of this course students will be able to: Appreciate the value of quality improvement in healthcare and other industries; Distinguish between the different quality improvement methods; Understand the process of developing and conducting a quality improvement initiative; Analyze quality improvement data; Recognize the importance of leadership and engagement of patient partners and other stakeholders in the implementation and sustainability of change.

**Term:** Fall 2022: (Tuesdays, 9 AM to 12 PM EST)

Course pre-requisite(s): None; Course co-requisite(s): None

**Number of Credits:** 3

**Course Location:** Classes will be held in person at Room 740, 5100 de Maisonneuve Blvd West (the Department of Oncology's HQ).

**Assessment:**

- Mid-term exam 30%
- Workshop participation and PIP presentation 25%
- Final exam 40%
- Class participation 5%

**Academic Integrity:** McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offenses under the Code of Student Conduct and Disciplinary Procedures" (see [www.mcgill.ca/students/srr/honest/](http://www.mcgill.ca/students/srr/honest/) for more information).

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## Course Agenda: Schedule of Lectures and Activities

A description of the lectures is found below. Topics are arranged in accordance with the natural progression of the design, conduct and implementation of quality improvement initiatives.

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

### Class 1

#### Topic: Introduction to Quality Improvement

Description: Part 1: Origins and history of quality improvement, why do we do quality improvement patient safety evolution. case studies. QI in other industries.  
Part 2 (interactive): Introduction to personal improvement project.

### Class 2

#### Topic: Quality Improvement Methods

Description: Clinical practice improvement, Lean, Six Sigma, DMAIC, model for improvement. Plan-Do-Study-Act (PDSA) cycles, systems approach. What needs improvement and why. Defining problems. This lecture will be a combination of didactic teaching using real life examples, and student participation.

### Class 3

#### Topic: Developing a QI Initiative Part I

Description: Defining problems, developing an aim statement. Understanding the current state, data collection methods. Ishikawa diagrams. Process mapping. This lecture will be a combination of didactic teaching using real life examples, and student participation.

### Class 4

#### Topic: Teams and Patient Engagement in QI Initiatives

Description: Part 1: Building a team, representation, interprofessional teamwork. Relationships. Defining team roles and responsibilities.  
Part 2: Strategies to encourage patient participation, e.g. patient partnership, committees, focus groups, surveys.

### Class 5

#### Topic: Developing a QI initiative Part II

Description: Overview on quality indicators. Importance of measurement in QI initiatives, different types of indicators, metrics, and measures to track during projects (outcome, process, balancing measures). This lecture will be a combination of didactic teaching using real life examples, and student participation.

### Class 6

#### Mid-term exam

### Class 7

#### Topic: Collecting and Analyzing Quality Improvement Data

Description: Data collection methods (e.g. surveys, interviews, focus groups, literature reviews, record analysis, chart reviews), timing and amount of data to be collected, defining what will be measured – numerator and denominator. Data analysis methods.

### **Class 8**

#### **Topic: Developing a QI initiative Part III**

Description: PDSA cycles, using a charter, change theory, change ideas, testing changes. Implementation. This lecture will be a combination of didactic teaching using real life examples, and student participation

### **Class 9**

#### **Topic: Institutional organizational structure for quality and patient safety**

Description: Professional orders, guidelines and oversight, accreditation, requirements for reporting and disclosure, managing risk.

### **Class 10**

#### **Topic: Leadership, Building Organizational Support for Change**

Description: Leadership, building capacity and capability, building organizations support for change, change management

### **Class 11**

#### **Topic: Clinical Pertinence and Value**

Description: Developing a culture of improvement, building capacity and capability of health care professionals.

### **Class 12**

#### **Topic Designing for Patient Safety, External Factors that can Impact Quality of Healthcare Delivery**

Description: Role of human factors, the physical environment, technology and organization on quality of care and patient safety.

### **Class 13**

#### **Final Exam**

TO REACH THE INSTRUCTOR:

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