

Graduate Certificate in Operations Management

Operations Managers Are Fundamental to Improving Productivity

In today's competitive market place, qualified Operations Managers are fundamental to improving productivity, raising quality standards and improving efficiency. The role of the Operations Manager is becoming increasingly important in the global market place with companies becoming more and more competitive. Sophisticated consumers, shorter product life cycles and new technology have placed increasing pressures on the operations function to improve productivity while providing a broader range of high-quality products and services.

The role of the operations manager is crucial in all organizations striving to achieve its objectives. Many operations managers are hired as consultants particularly when organizations are implementing new systems.

Typical careers in operations management may involve working in industries such as manufacturing firms, transportation, insurance, retailing and banking. You may work in any of the following areas:

- inventory planning and control
- operations scheduling
- process methods and planning
- quality management
- traffic management
- purchasing
- forecasting

How can a McGill Program prepare you for a Career in Operations Management?

- our programs will provide you with the theory and practical knowledge as well as the most up to date techniques to improve job performance.
- with a specialization in operations management, you will develop in-depth knowledge of manufacturing systems and operations management plus technology management and total quality management
- you will gain a strong foundation in operations and supply chain management
- you will learn how supply chain management strategies can contribute to profitability by cutting costs and preparing companies to react more quickly to changes in the market

The Program

The Graduate Certificate in Operations Management is a 15-credit program which consists of 4 required three-credit courses and 1 three-credit complementary course.

Classes are offered once a week for 13 weeks and are generally from 6 p.m. to 9 p.m. Courses can be taken in the Fall, Winter, Spring and Summer sessions. Classes in the Spring and Summer sessions may be given in less than 13 weeks. Not all courses are offered every semester.

This graduate certificate's program requirements are:

4 Required courses:

CMS2 514 Analysis: Manufacturing Systems
CMS2 515 Operations Management
CMS2 516 Total Quality Management
CMS2 518 Current Manufacturing Strategies

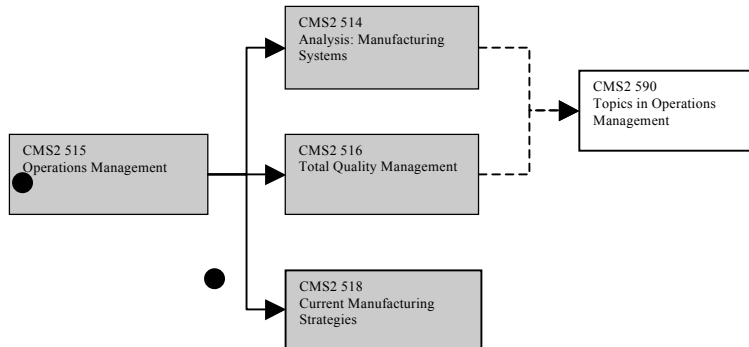
1 Complementary course from:

CCLW 511 Law 1
CGM2 510 Project Management: Tools and Techniques
CMIS 541 Information Systems for Managers
CPL2 552 Strategic Management
CPL2 553 Small Business Management
CMS2 590 Topics in Operations Management

Or any other 500 or 600 level course offered through Career and Management Studies and approved by the department.

Course Sequence

Graduate Certificate in Operations Management



CPL2 553
Small Business
Management

CCLW 511
Law I

CMIS 541
Information Systems for
Managers

CPL2 552
Strategic Management

CGM2 510
Project Management:
Tools and Techniques

NOTE:

Required Course

Complementary Course

→ Pre-requisite

*Students without a Bachelor of Commerce degree or equivalent may be asked to complete one or more pre-requisite courses prior to taking certain courses in this program.

Please refer to course description for information on pre-requisite requirements for each course.

To obtain information on course offerings, please refer to the interactive timetable at <http://www.mcgill.ca/conted-cms/programs/grad/management-certificate/operations/>.

Course Descriptions

CACC 520 Accounting for Management

(3 credits)

Co-requisite:
CMS2 500 Mathematics for Management

This course covers financial and managerial accounting. The course provides an understanding of the various financial statements as well as cost behaviour, cost/volume/profit relationships, budgets, responsibility accounting and relevant costing.

CCLW 511 Law 1

(3 credits)

Pre-requisites:
None

Sources and administration of law; the Canadian Constitution and the division of powers; the Quebec Civil Code, comprising the law of persons, the law of property, obligations, contracts, sale, lease and hire, mandate, suretyship, hypothecs and prescription.

CFIN 512 Corporate Finance

(3 credits)

Pre-requisites:
[CACC 520 Accounting for Management (Diploma in Management students)
or CCFC 511 Financial Accounting 1 (Diploma in Accounting students)] and CMS2 521 Applied Management Statistics

Fundamental finance theory as applied to the firm's short and long-term financing and investment decisions and the sources of funds available to it (stocks, bonds, derivatives). Exposure to critical concepts of "firm value maximization" emphasizing capital budgeting, cost of capital, capital structure, derivatives, dividend policy, risk and return.

CMG2 510 Project Management: Tools and Techniques

(3 credits)

Pre-requisites:
None

Focus on main concepts and theories of project management from initiation to close-out. Topics include: project life cycle, planning, scheduling, implementing, monitoring, controlling, close-out and ethics. The concepts presented apply to projects of various sizes, types and degrees of complexity.

CMIS 541 Information Systems for Managers

(3 credits)

Pre-requisites:
None

Introduces the importance of Information Systems (IS) in organizations and issues associated with managing these. Provides a strategic view of IS and Information Technology (IT). Students will be presented with managerial, informational and technological issues related to the management of IT, and with a framework to better manage them. Class discussions, case analysis, presentations.

CMR2 542 Marketing Principles and Applications

(3 credits)

Pre-requisites:
None

Covers the different aspects of marketing operations: the marketing concept, the analysis and research of market opportunities, the planning, implementation, and control of the marketing program (Product, Promotion, Distribution, and Pricing). The course focuses on Canadian market environment and Canadian marketing institutions. Lectures and case studies on an individual basis and/or involving team work will be used.

CMSC 000 Foundations for Mathematics

(3 credits)

Pre-requisites:
None

Operations with real numbers, polynomials, first-degree equations and applied word problems. Factoring, fractions, exponents, roots and radicals. Systems of linear equations and linear inequalities. Absolute values, equations and inequalities. Quadratic equations, applied problems.

CMS2 500 Mathematics for Management

(3 credits)

Pre-requisite:
CMSC 000 Foundations of Mathematics or the Exemption by Examination Test

Basic mathematics needed for business applications, including graphs, series summation, mathematics of finance, annuity, discounted cash flow, internal rate of return, permutations, combinations, maxima and minima functions with business applications in optimization, introductory statistics and probability.

CMS2 514 Analysis: Manufacturing Systems

(3 credits)

Pre-requisite:
CMS2 515 Operations Management

This course presents a framework for design and control of modern production and inventory systems, and bridges the gap between theory and practice of production and inventory management. The course develops analytical concepts in the area and highlights their applications in the manufacturing industry. The course is divided into three segments. The first segment looks at the production planning process and discusses in detail the resource allocation issues. The second segment deals with analysis and operation of inventory systems. The third segment integrates production planning and inventory control and looks at various integrated models for determining replenishment quantities and production lots.

CMS2 515 Operations Management

(3 credits)

Pre-requisites:
Core program¹

Introduction to decisions and trade-offs associated with production of goods and services. Topics include technology planning (production process), design of production systems (capacity and location planning), control issues (production planning and inventory control, MRP/JIT, scheduling, quality

¹ Core Program: CACC 520 Accounting for Management, CFIN 512 Corporate Finance, CMR2 542 Marketing Principles and Applications, CMS2 521 Applied Management Statistics and CORG 511 Behaviour in Organizations.

and reliability and distribution planning), design for manufacturability, management of new technology (FMS, group technology and robotics) and management of services operations.

CMS2 516 Total Quality Management (3 credits)

Pre-requisite:
CMS2 515 Operations Management

The objective of this course is to bring together several key concepts related to Total Quality Management. The topics include: Top Management Commitment, Leadership Style, Bench Marking, Employee Involvement, Human Resource Utilization, Employee Motivation, Quality Function Deployment, Statistical Techniques for Quality Improvement, including the seven tools of quality, statistical process control, design of experiments, Taguchi's methods and quality in the service industry.

CMS2 518 Current Manufacturing Strategies (3 credits)

Pre-requisite:
CMS2 515 Operations Management

Design, management and improvement of operations: examination of systems used to coordinate processes, focusing on the use and management of technology as part of such systems.

CMS2 521 Applied Management Statistics (3 credits)

Pre-requisite:
CMS2 500 Mathematics for Management or the Exemption by Examination Test²

Statistical methods used in a variety of business situations, emphasizing application and providing a working knowledge of the most widely-used techniques. Topics include descriptive statistics; probability distributions; sampling procedures and distributions; inferential statistics including estimation; hypothesis testing and Anova; simple linear, multiple regression and correlation; time series and forecasting.

CMS2 590 Topics in Operations Management (3 credits)

Pre-requisite:
CMS2 514 Analysis of Manufacturing Systems or CMS2 516 Total Quality Management

Specialized course covering an advanced topic in the operations management area selected from current issues or themes in literature. (Content will vary from year to year.)

CORG 551 Behaviour in Organizations (3 credits)

Pre-requisites:
None

The implications for management and the essential concepts of social psychology such as motivation, perception, attitude change and organization. Group and organizational dynamics will be the major emphasis of the course. Classroom discussion and student participation is encouraged.

² For more information on how to obtain course exemption by the means of challenge exam, please visit website: <http://www.mcgill.ca/conted-cms/courses/math/test/>

CPL2 552 Strategic Management

(3 credits)

Pre-requisites:
Core Program

Includes analysis of major forces driving organizations, explores mission development, goal selection, corporate strategy, policy formulation for the benefit of all stakeholders. Discusses situations confronting senior managers in the competitive environment, includes topics such as the identification and evaluation of strategic alternatives, the management of control processes for increased productivity, etc.

CPL2 553 Small Business Management

(3 credits)

Pre-requisites:
CACC 520 Accounting for Management and CMR2 542 Marketing Principles and Applications

This course will focus on the concepts and activities of entrepreneurship in the small business environment. Through the analysis of small business situations and the study of related case material, students will learn the fundamental actions required in practice to start and manage a small business. Skill acquisition will be oriented toward learning to prepare a business plan.

Admission Requirements

1. Bachelor's degree in Commerce (or equivalent) as approved by the Graduate and Postdoctoral Studies Office.
2. If you have studied outside of Canada, you are required to request an evaluation of your degree called "Évaluation comparative des études effectuées hors du Québec", from MRCI. For further details you may contact their office at: (514) 864-9191 or visit them on the web at: www.immigration-quebec.gouv.qc.ca/en/education/comparative-evaluation/index.html

Note: Students without a commerce-related degree may be able to enroll for a Diploma in Management. For more information, please visit: <http://www.mcgill.ca/conted-cms/programs/grad/>

Language Requirements

The language of instruction for most courses and programs at McGill is English; however, students may submit any written work that is to be graded in English or French, except in cases where knowledge of the language is one of the objectives of the course. Applicants must demonstrate an adequate level of proficiency in English **prior to admission**, regardless of citizenship status or country of origin. McGill University has this language requirement in place to ensure that all students are provided with the opportunity to succeed in their chosen program. In all cases, the University reserves the right to require proof of English proficiency if it is deemed necessary. Below you will find information on when proof of proficiency is required.

If you answer "yes" to any of the following seven statements, you do **NOT** necessarily need to provide proof of English proficiency, but must provide documentation to support your answer.

- Have you lived and attended school, for at least **four** years, in a country where English is the acknowledged primary language?
- Have you completed both Secondary V and a DEC at a French CEGEP in Quebec?
- Have you completed a DEC at an English CEGEP in Quebec, during or later than 2003?
- Have you or will you complete a French Baccalaureate – Option Internationale (British or American section)?
- Have you or will you complete International Baccalaureate English A with a final result of 5 or better?
- Have you or will you complete the British Curriculum A-Level English with a final grade of ‘C’ or better?
- Have you completed the British Curriculum GCSE/IGCSE/GCE O-Level English, English Language, English First Language, or English as a Second Language with a final grade of ‘B’ or better?

If you answered “no” to all of the above, but answer “yes” to any of the following questions, you will be asked to provide supporting documentation to this effect and **may** still be asked to provide proof of English language proficiency.

- Do you consider English to be your mother tongue?
- Have you been attending school, for at least four consecutive years, at an accredited educational institution (in a non-English speaking country) where English is the language of instruction?
- Have you obtained an undergraduate degree from an accredited educational institution where the language of instruction in your program of study was English (minimum three years)?
- Have you obtained a graduate degree from an accredited educational institution where the language of instruction in your program of study was English (minimum two years)?

Applicants to the Department of Career and Management Studies who do not meet any of the above-listed conditions must demonstrate proficiency in English using **one** of the following options:

- 1) TOEFL (Test of English as a Foreign Language): minimum acceptable scores are

iBT (internet based test)	PBT (paper based test)	CBT (computer based test)*
90 overall (a minimum individual component score of 21 in each of the four components i.e. reading, writing, listening and speaking)	577	233
*The CBT is no longer being offered. CBT results will be accepted as long as considered valid by ETS.		
N.B. an institutional version of the TOEFL is not acceptable.		

- 2) IELTS (International English Language Testing System): a band score of 6.5 or better.
- 3) MELAB (Michigan English Language Assessment Battery): a minimum mark of 85%.
- 4) APIEL (Advanced Placement International English Language): a minimum score of 4.

- 5) McGill CCE TELP (McGill CCE Test of English Language Proficiency): a Category A result.
- 6) McGill Certificate of Proficiency in English or McGill Certificate of Proficiency – English for Professional Communication: Certificate of Proficiency awarded.
- 7) University of Cambridge ESOL Certificate in Advanced English (CAE): a grade of “B” (Good) or higher.
- 8) University of Cambridge ESOL Certificate of Proficiency in English (CPE): a grade of “C” (Pass) or higher.
- 9) Edexcel London Test of English – Level 4 – with an overall grade of at least “Merit Pass”.
- 10) Edexcel London Test of English – Level 5 – with an overall grade of at least “Pass”.

NOTE: Your test results must be reported directly to the University by the test centre; consequently, candidates' copies of results will not be accepted as proof of English language proficiency. It is your responsibility to ensure that the official test results in an official format are forwarded directly by the testing service to the Student Affairs Office (Admissions) of the Centre for Continuing Education, 688 Sherbrooke St. West, 11th Floor, Montreal, Quebec, H3A 3R1. For TOEFL and APIEL, the institutional code at McGill University is 0935-00.