GRADUATE DIPLOMA
SCIENTIFIC MANAGEMENT AND LEADERSHIP

The Graduate Diploma in Scientific Management and Leadership is offered by the Telfer School of Management. The Graduate Diploma is open to students already enrolled in the participating MSc or PhD programs in the Faculty of Science. To receive the diploma, the requirements of both the primary program and of the diploma must be met. Both credentials are awarded simultaneously. The compulsory diploma courses are offered in English and in French. The optional courses are available in sufficient number in both languages to allow a student to complete all the diploma requirements in either English or French.

In accordance with the University of Ottawa regulation, students have a right to produce their assignments, their thesis, and to answer examination questions in French or in English.

Students who have completed the graduate diploma as well as their MSc or PhD are eligible to apply to another program offered by the Telfer School Management. The Admissions Committee of that program will determine whether some or all of the credits successfully completed for the diploma can be transferred.

### Participating Programs
- Biology (MSc/PhD)
- Chemistry (MSc/PhD)
- Earth Sciences (MSc/PhD)
- Mathematics (MSc/PhD)
- Physics (MSc/PhD)

### Admission Requirements
For the most accurate and up to date information on application deadlines, language tests and other admission requirements, please visit the specific requirements [link](https://www.uottawa.ca/graduate-studies/programs-admission/apply/specific-requirements) webpage.

Applicants at the master's level must apply for admission to the diploma at the same time as for the MSc program or, at the latest, towards the end of their first term of enrollment in the master's. Applicants at the doctoral level must apply no later than the beginning of the second year of enrollment in their PhD program.

All applicants must provide the following:
- A letter outlining their career plans and the relevance of the Diploma to those plans.
- A plan of study, indicating the proposed schedule for completion of the requirements of both the diploma and their primary program.
- A letter of support signed by their thesis supervisor and co-signed by the student’s primary program director.

### Language Requirements
Applicants whose first language is other than English and who intend to take the diploma courses in English must provide one of the following:
- A score of at least 250 (100 Internet-based) on the Test of English as a Foreign Language (TOEFL), with a score of at least 5 on the Test of Written English (TWE) and a score of at least 50 on the Test of Spoken English (TSE).
- A score of at least 7 in at least three of the four International English Language Testing System (IELTS) tests (Reading, Listening, Writing, Speaking) and at least 6 in the fourth.
- A score of at least 14 on the CANTEST, with no individual test score below 4.0, along with a score of 4.5 on the oral component of the test.
- Proof of completion within the last five years, of a previous degree program in an English or French language university.
- Proof of recent prolonged residence and exercise of a profession in an English or French speaking country (normally at least four years over the last six years).

### Program Requirements
In addition to the requirements of their primary program of study, students must successfully complete 9 units of coursework as follows:

#### Compulsory Courses:
- MBA 5235 Management Skills I 1.5 Units
- MBA 5236 Leadership and Management 1.5 Units
- ADM 6260 Project Management I 1.5 Units
- ADM 6261 Project Management II 1.5 Units

#### Optional Courses:
- At least one of:
  - MBA 5241 Managerial Accounting Information and Decisions 1.5 Units
  - MBA 5250 Introduction to Corporate Finance 1.5 Units
- At most one of:
  - MBA 5237 Change Management 1.5 Units
  - MBA 6262 Entrepreneurship 1.5 Units
  - MHA 6203 Program Evaluation for Health Care Managers 1.5 Units
  - MHA 6212 Governance and Ethical Management in Health Care Organizations 1.5 Units
  - MHA 6215 Management and Evaluation of Quality of Patient Care 1.5 Units
  - MHA 6230 Human Resource Management in Health Care 1.5 Units

### Duration of the Program
The requirements of the diploma are normally completed within one year.

### Minimum Standards
The passing grade in all diploma courses is C+. Students who fail two courses must withdraw from the diploma program. Students required to withdraw from their primary program are automatically withdrawn from the diploma.

### Research
#### Research Fields & Facilities
Located in the heart of Canada’s capital, a few steps away from Parliament Hill, the University of Ottawa is among Canada’s top 10 research universities.

uOttawa focuses research strengths and efforts in four Strategic Areas of Development in Research (SADRs):

- Canada and the World
- Health
- e-Society
- Molecular and Environmental Sciences

With cutting-edge research, our graduate students, researchers and educators strongly influence national and international priorities.

Research at the Telfer School of Management

For more information, consult the Professors by area of expertise (http://www.telfer.uottawa.ca/en/directory/professors-by-area-of-expertise) page.

Courses

ADM 6260 Project Management I (1.5 unit)
Project management methods based on standards, including the Guide to Project Management Body of Knowledge (PMBOK) of the Project Management Institute (PMI); project success and stakeholders; project charter and project plan; managing a project throughout its life cycle (identification, design, planning, realization and close-out). Students will have hands-on experience using MS Project.
Course Component: Lecture

ADM 6261 Project Management II (1.5 unit)
Focus on projects that have incomplete and/or unstable requirements such as IT projects or software development projects. Topics covered include: portfolio management; risk management; determining requirements and solutions; quality management; communication management; design methods (Quality Function Deployment, Value Analysis); iterative and adaptive project management; fast tracking and concurrent methods of project management.
Course Component: Lecture

MBA 5235 Management Skills I (1.5 unit)
Development of increased skills and understanding of participant preferences for the management of interpersonal and team-based issues and processes in a work environment. Special focus on diversity and ethics in a team environment. Effective business communications, including skills for delivery of high quality business presentations; exposure to common business software for inclusion in the student's professional toolbox.
Course Component: Lecture

MBA 5236 Leadership and Management (1.5 unit)
Leadership versus management; participatory leadership; transactional leadership; transformational leadership; reciprocity and mutual influence between leaders and followers; leading up (followership); situational determinants of effective leadership; cross-cultural leadership; virtual leadership. Course delivery involves class discussions, experiential exercises, guest speakers and case studies.
Course Component: Lecture
Pre-corequisite: MBA 5330

MBA 5241 Managerial Accounting Information and Decisions (1.5 unit)
This course focuses on the role of the accounting function internal to the organization. It takes a broad view of managerial accounting, introducing students to various costing systems, cost behaviour patterns and cost structures. It demonstrates the use of accounting for the evaluation of product, managerial and divisional performance thus helping students to understand what accounting can do for decision makers and how accounting choices affect decisions. Emphasis on the strategic importance of aligning accounting systems with firm technologies and goals. Current issues in management accounting and internal reporting are discussed.
Course Component: Lecture

MBA 5250 Introduction to Corporate Finance (1.5 unit)
Course Component: Lecture
Prerequisite: MBA 5340

MBA 6262 Entrepreneurship (1.5 unit)
Creating, growing, and sustaining or exiting a new firm in a technology-intensive industry. Issues important to the technology (the scope and nature of technological knowledge and intellectual property protection), financing (seed capital, venture capital, and initial public offerings), and inter-firm relationships (spin-offs, alliances and equity alliances, and acquisitions). The course is practically oriented and will draw upon local expertise to enhance its pertinence and appeal.
Course Component: Lecture

MHA 6203 Program Evaluation for Health Care Managers (1.5 unit)
This course is intended for future health care managers who will contract out or procure program evaluations within their organizations. It covers the development of evaluation questions and standards of effectiveness, program evaluation designs, sampling, collecting information (primary and secondary), evaluation measures, managing evaluation data, analyzing evaluation data, evaluation reports, and development of Requests for Proposals (RFPs) that form the basis for these evaluations. Students prepare an evaluation proposal similar to the kind of proposal that is submitted by consulting firms and/or academic groups in response to RFPs from health care managers. At the conclusion of this course, students will be able to develop RFPs and to adequately assess evaluation proposals, i.e., be able ask to right questions, and to know which disciplines should be represented on the proposal review team.
Course Component: Lecture

MHA 6212 Governance and Ethical Management in Health Care Organizations (1.5 unit)
Governance models for health care organizations. Definition, resolution and handling of ethical problems of administrators, professionals and researchers in health organizations. Reconciliation of conflicting interests of the stakeholders according to ethical principles.
Course Component: Lecture
MHA 6215 Management and Evaluation of Quality of Patient Care (1.5 unit)
This course will apply concepts from the literature to analyze and understand quality management and patient safety issues, and discuss these concepts in relation to accountability. It will prepare students for the health care workplace by exposing them to practices and aspects related to patient safety and quality in health care, and by identifying contemporary approaches to address them. Various models and approaches for assessing and improving quality will be discussed, including evidence-based medicine and management, systematic reviews, clinical practice guidelines, and quality improvement approaches. Various quality initiatives and quality improvement tools will be discussed and evaluated.

Course Component: Lecture

MHA 6230 Human Resource Management in Health Care (1.5 unit)
Focus on the major issues unique to effective health human resources management. Topics covered include measuring needs and planning for the current and future supply of human resources. Recruitment, retention and development strategies to meet changing workforce conditions. Understanding the unique regulatory environments where many professions are regulated by provincial laws and professional colleges while others are not. Labor relation issues and approaches in this highly unionized environment. Funding, team work and inter-professional practice, scope of practice issues and organizational design. Interactions of organizational and professional accreditation mechanisms (such as professional colleges and associations, and accreditation bodies).

Course Component: Lecture