MASTER OF SCIENCE
MANAGEMENT
SPECIALIZATION IN
ENVIRONMENTAL
SUSTAINABILITY

The Telfer School of Management offers programs leading to graduate diplomas in Organizational Performance Management, Scientific Management and Leadership, and Leadership and Management (offered only in French at the moment), as well as to the degree of Master of Science (MSc) in Management.

The master’s program is designed to train experts who can contribute to academic excellence and influence change in society by undertaking and disseminating rigorous academic, applied and policy research in management, particularly in the fields of innovation management and entrepreneurship.

Students in the program may opt to complete a concentration in either one of these two fields. The concentration appears on the transcript.

The MSc in Management is a participating program in the collaborative program in environmental sustainability at the master’s level.

The guiding objective of the collaborative program in environmental sustainability is to provide graduate students with the knowledge and skills needed to identify and analyze the economic, legal, policy and scientific dimensions of environmental problems, and to employ an evidence-based approach to develop rational policy options for addressing those problems.

The PhD program in Management is offered under the auspices of the Telfer School of Management. It is offered on a full-time basis in the following five fields:

- Accounting and Control
- Entrepreneurship
- Finance
- Health Systems
- Organizational Behavior and Human Resources

Information on the fields and research interests of the professors is posted on the program website.

The program is offered in English and in French. In accordance with University of Ottawa regulations, students have the right to produce their work, their thesis, and to answer examination questions in French or in English.

The program is governed by the general regulations (http://www.grad.uottawa.ca/Default.aspx?tabid=1807) in effect for graduate studies.

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 (https://www.uottawa.ca/graduate-studies/programs-admission/apply/specific-requirements/) webpage.

Applicants who have a four-year undergraduate (honours) degree in management, in science, computer science, economics, social sciences or engineering, with the equivalent of the University of Ottawa “Minor in Administration” or “Engineering Management and Entrepreneurship Option” are eligible for admission to the MSc in Management program.

To be considered, applicants must have at least a 75 per cent (B+) cumulative grade point average (CGPA), calculated in accordance with graduate studies guidelines. Students lacking academic background in management may be required to complete prerequisite coursework as a condition of admission. The specific requirements of the qualifying program will be determined by the admissions committee based on the academic and professional profile of the applicant.

Applicants to the program must have achieved at least a 50th percentile score on either the GMAT (General Management Admission Test) or GRE (Graduate Record Examinations), and submit at least two letters of recommendation and a statement of research interest of between 800-1000 words. The research statement is a letter of intent stating the applicant’s motivation for studying in the MSc in Management program, their commitment to conducting research, and outlining their preferred areas of research interest. Applicants should indicate whether or not they wish to complete one of the two concentrations and they are encouraged to identify a possible research supervisor as part of the application process.

Applicants who have successfully completed compulsory units or their equivalents prior to admission will be granted an exemption, that is, they will be permitted, on the advice of their supervisor, to replace those units with elective units in the program. To be eligible for exemption, the units must have been completed with a grade of 70 per cent (B) or better no more than five years prior to admission to the MSc. The maximum number of units for which an exemption can be granted is six. No exemption will be given for the course MGT 5300. The general regulations in effect for graduate studies, section B 2.7, apply for transfer of units.

Students are normally admitted to the program on a full-time basis and are required to enroll full-time for at least three terms. Applicants applying to be admitted on a part-time basis may be considered, provided they have demonstrated a clear commitment and plan for completing their degree requirements in a timely way.

Collaborative Program

Admission to the collaborative program in Environmental Sustainability is governed by the general regulations in effect for graduate studies.

Applications for admission to the collaborative program in environmental sustainability at the master’s level are normally submitted at the same time as the application for admission to the relevant participating master’s program. In exceptional cases, students could commence their specialization in environmental sustainability at the beginning of the second term of enrollment.

To be accepted into the collaborative program candidates must:

- Be admitted to one of the programs participating in the collaborative program;
- Submit the collaborative program enrollment form (https://www.uottawa.ca/environment/grad-programs/specialization/apply/);
• Provide, in the case of thesis-based programs, a letter of recommendation from a professor confirming that he or she is willing to act as thesis supervisor;
• Submit a cover letter along with the application form indicating what research topic or area the student would like to pursue, and why the student wishes to do so as part of the collaborative program.

Language Requirements
Applicants must be able to understand, speak and write either English or French fluently and they must indicate in their application the language in which they intend to take their courses. Those whose first language is neither English nor French are required, at the time of application, to provide evidence of proficiency in one of these languages. Applicants whose first language is not English and who intend to study in English are required to provide one of the following as evidence of proficiency in English (the test scores cannot be more than two years old as of September 1 of the year of potential entry into the program):

• A score of at least 250 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). The TOEFL is administered by Educational Testing Service, Box 899, Princeton, New Jersey, USA, 08540; see also www.web1.toefl.org.
• 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. The IELTS is administered by the British Council: www.ielts.org.
• A score of at least 14 on the CANTEST, administered by the University of Ottawa, 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 language university.
• Proof of recent prolonged residence and exercise of a profession in an English speaking country (normally at least four years of the last six years).

Candidates applying to study in French must submit one of the following to confirm their French proficiency:

• A score of at least 14 on the TESTCAN, administered by the University of Ottawa, 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 a French language university.
• Proof of recent prolonged residence and exercise of a profession in a French-speaking country (normally at least four years of the last six years).

Considering the significant amount of management research that is published in English, particularly in the fields of innovation management and entrepreneurship, all applicants need the ability to read and understand written English; proof of this ability may be required.

Language of Instruction
All core courses and some of the electives are offered in both French and English. Some of the seminars in the Management Research Seminar Series will be delivered in English and some in French so that the requirement may be completed fully in either language. There are sufficient elective courses in both languages for students to complete the elective requirements in either French or English. As per University of Ottawa policy, students can complete major assignments, examinations and their thesis in either English or French. This also applies to the oral presentations given by the students in the Management Research Seminar Series. Opportunities exist for students to use French or English as a primary language of communication as they conduct their research.

Program Requirements
Master’s with Collaborative Specialization (Thesis)
Students must complete 30 units consisting of 18 units of coursework, comprised of 12 units of core courses and 6 units of elective courses, and 12 units for a thesis. In addition, they must attend the Management Research Seminar Series (MGT 6991).

The requirements of both the primary program and of the collaborative program must be met. The units completed for the specialization count also towards the primary degree. Additional units are not required.

Compulsory Courses (MGT):
MGT 5100 Research Design Methodologies and the Conduct of Research 3 Units
MGT 5300 Foundations of Management 3 Units
3 course units from:
   MGT 5101 Multivariate Research Methods 3 Units
   MGT 5102 Qualitative Research Methods

6 elective course units in management (MGT) from the list of elective courses below 1

Seminar:
MGT 6991 Management Research Seminar Series

Compulsory Courses (EVD):
EVD 5100 Seminar in Environmental Sustainability 3 Units

Thesis:
THM 7999 Master’s Thesis 2

Note(s)
1. Students, in consultation with their thesis supervisor, select 6 units from the list of elective courses in areas generally related to their chosen concentration and to their research topic.
2. Presentation and defence of a thesis on a topic in environmental sustainability based on research carried out under the supervision of a professor who is a member of the student’s primary program and/or of the collaborative program. The Collaborative Program Committee determines whether or not the topic of the thesis is appropriate for the designation “Specialization in Environmental Sustainability.” At least one of the thesis examiners must be a member of the Environmental Sustainability collaborative program.

List of Elective Courses
Students can enroll to at most 3 units of directed readings. In addition to courses below, relevant courses from the MHA, MBA, and EMP programs, or from other graduate programs at the University of Ottawa or at another university, could be taken with the approval of the thesis supervisor, the MSc in Management program director, and the appropriate program director in the case of courses in other academic units, faculties and institutions.

Innovation Management
MGT 6160 Systems of Innovation 3 Units

MGT 6161 Managing Corporate Innovations 3 Units
MGT 6169 Recent Topics in Innovation Management 3 Units

Entrepreneurship Field
MGT 6110 Entrepreneurial Process and Opportunity Recognition 3 Units
MGT 6111 Venture Capital and Private Equity 3 Units
MGT 6112 Social Entrepreneurship 3 Units

Other Courses
MGT 6190 Research Topics in Management 3 Units
MGT 6990 Praticum Research 3 Units
MGT 6998 Directed Readings 3 Units

Management Research Seminar Series
Students must enroll continuously in Management Research Seminar Series (MGT 6991) from the beginning of their program and must attend at least six seminars in the series. The notation “CTN” (for continuing activity) will be entered for each term until successful completion of the seminar requirements. The thesis supervisor, in the annual progress report of the student, will confirm attendance and active participation. Students must present and defend their thesis proposal at one of the seminars. A student whose proposal is not approved on the first attempt may be permitted to submit and present a second proposal. Failure to obtain approval following the second submission will result in a grade of NS and withdrawal from the MSc program.

MSc Thesis
Students must submit to their thesis committee, before the end of the second term of enrollment in the program, a clearly defined research proposal that has been approved by their thesis supervisor.

The master’s thesis should reveal that the candidate is able to work independently in a scholarly manner and is acquainted with the principal works published on the subject of the thesis. Insofar as possible, the thesis should be an original contribution. Theses will comprise theoretical and/or empirical research contributions applying a wide range of data collection methodologies, and modelling and analysis techniques based on appropriate software applications. Data collection methodologies will include the gathering of secondary data from published or archived sources, and/or primary data through interviews, surveys, and ethnographic studies. Topics for thesis research may include management issues identified in the academic literature or real challenges faced by organizations or a combination of these.

Upon submission, the completed thesis is examined by a committee comprised of the thesis supervisor and at least two other professors approved by graduate studies and by the MSc in Management program committee. For information regarding the thesis, consult section G of the general regulations in effect for graduate studies and the guide Preparing a thesis or a Research Paper.

Duration of Program
The program can be completed in six terms or approximately 24 months, but may be completed more quickly. The maximum time allowed for completion of the program is four years.

Minimum Standards
The minimum passing grade in all courses taken as part of the program is C+. Students who fail two courses (equivalent to six units) or whose thesis proposal is rejected twice NS grade in MGT 6991 must withdraw.

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
Not all of the listed courses are given each year. The course is offered in the language in which it is described. Please verify with the Environment Institute.

MGT 5100 Research Design Methodologies and the Conduct of Research (3 units)
Introduction to research and scientific inquiry in order to foster a better understanding of the research discovery process. Planning, designing, and conducting a research project; detailed discussion of the research methods and techniques available; selecting research methods and techniques appropriate for the nature of the problem and the objectives of the project. Exposure to various research methodologies including paradigms of social phenomena modeling, qualitative research, mathematical modeling methods, and experimental design approaches including randomized control trials (RCT) design principles. Courses MGT 7101, MGT 5100 cannot be combined for units.

Course Component: Lecture
Exclusion: MGT 7101

MGT 5101 Multivariate Research Methods (3 units)
Analysis of the basic multivariate techniques that are often used in social and life sciences in order to enable students to apply the correct technique to any given set of data, to properly interpret the output of statistical computer packages, and to understand and critique scientific papers that use these techniques. Topics will include principal components analysis, factor analysis, multivariate analysis of variance, multiple and logistic regression, log-linear analysis, and introduction to structural equation modeling.

Course Component: Lecture

MGT 5102 Qualitative Research Methods (3 units)
Designing qualitative studies, collecting and analyzing qualitative data, attaining research credibility, and writing a qualitative research report. Topics will include the case study, ethnography, phenomenology and grounded theory. Introduction to the use of qualitative data analysis software (such as N-Vivo). Critical evaluation of qualitative studies. Courses MGT 7302, MGT 5102 cannot be combined for units.
Course Component: Lecture
Exclusion: MGT 7302

MGT 5300 Foundations of Management (3 units)
Primary focus on building a strong foundation of the theories and practice of management. Exposure to current research issues and scholarly literature in management. Relevance and application of the various theories to the fields of innovation and entrepreneurship.
Course Component: Lecture

MGT 5500 Recherche et méthodologies de recherche (3 crédits)
Introduction à la recherche et aux travaux scientifiques afin de mieux comprendre la démarche propre aux travaux de recherche. Planification, conception et réalisation d’une étude, l’accent étant mis sur le processus de recherche, examen détaillé des méthodes et techniques de recherche pouvant être utilisées à chaque stade de la recherche tout en liant le choix de ces méthodes et techniques à la nature du problème et aux objectifs de l’étude. Présentation de méthodologies de recherche variées comprenant les paradigmes des sciences sociales pour la modélisation de phénomènes sociaux, les méthodes de recherche qualitatives, les méthodes de modélisation mathématique et la conception d’expériences incluant les principes de conception d’essais contrôlés et randomisés (ECR). Les cours MGT 7501, MGT 5500 ne peuvent être combinés pour l’obtention de crédits.
Volet : Cours magistral
Exclusion : MGT 7501

MGT 5501 Méthodes de recherche multidimensionnelles (3 crédits)
Ce cours porte sur les diverses techniques multidimensionnelles de base qui sont souvent utilisées en sciences sociales et en sciences de la vie pour permettre à l’étudiant d’appliquer la technique appropriée à un ensemble de données, d’interpréter correctement le produit des procédures statistiques ainsi que de bien comprendre et analyser les résultats. Les sujets abordés comprennent notamment l’analyse en composantes principales, l’analyse factorielle, l’analyse multidimensionnelle de la variance, la régression multiple et logistique, l’analyse linéaire logarithmique et l’introduction à la modélisation par équation structurale.
Volet : Cours magistral

MGT 5502 Méthodes de recherche qualitatives (3 crédits)
Conception de recherche qualitative, collecte et analyse de données qualitatives, crédibilité dans les travaux de recherche, rédaction de rapports de recherche qualitative. Les sujets abordés sont, entre autres, la phénoménologie, la théorie à base empirique, l’ethnographie et l’étude de cas; l’utilisation de procédures statistiques permettant d’analyser des données qualitatives (comme N-Vivo); évaluation critique d’études qualitatives. Les cours MGT 5502, MGT 7302 ne peuvent être combinés pour l’obtention de crédits.
Volet : Cours magistral
Exclusion : MGT 7302

MGT 5700 Théorie de la gestion (3 crédits)
Volet : Cours magistral

MGT 6101 Theory of Finance (3 units)
Four themes of finance: features and limitations of the neoclassical paradigm of a firm's decisions; information hazard and signalling; moral hazard and agency; corporate control. Theoretical and empirical issues related to corporate financing decisions, capital acquisition process, corporate governance and compensation design, mergers and acquisitions, risk management and corporate hedging.
Course Component: Lecture

MGT 6102 Financial Risk Management and Derivative Securities (3 units)
Understanding issues in financial risk management from the perspective of non-financial corporations, focusing on risk measurement and usage of related instruments to hedge risks. How derivative securities, such as options, futures contracts, forward contracts, swaps and interest rate caps, can be valued. Arbitrage relationships, risk-neutral valuation, creation of options synthetically, numerical procedures and the evaluation of credit risk.
Course Component: Lecture

MGT 6110 Entrepreneurial Process and Opportunity Recognition (3 units)
Current state of research in entrepreneurship, synthesis of scholarly literature, and identification of priorities for future research. Topics will include entrepreneurial processes, opportunity and the nature of exploitation, the emergence of new ventures, financing new ventures, entrepreneurship, economic growth and policy.
Course Component: Seminar

MGT 6111 Venture Capital and Private Equity (3 units)
Role of venture capital and private equity in the enterprise development process and in the commercialization of innovation. Examination of the following: assembly and investment of early-stage risk capital; operation of venture capital firms’ equity and that of private firms; evaluation of investments; portfolio management; non-financial forms of value added provided by venture capital funds. Theory and practical exercises.
Course Component: Lecture

MGT 6112 Social Entrepreneurship (3 units)
Role of social entrepreneurs as change agents striving to create social value through entrepreneurship. Study of the emerging area of social entrepreneurship and related areas where social and economic goals and means are combined. Introduction to the concepts, practices, opportunities, and challenges of social entrepreneurship and related areas. Frameworks and tools for operating effectively in areas of nontraditional entrepreneurship. Engagement of students in a joint learning process to create a deeper understanding of these changing fields.
Course Component: Lecture

MGT 6160 Systems of Innovation (3 units)
Examination of the context in which firms and other organizations operate and of the nature and evolution of industries. Survey of research on the nature and evolution of national and regional systems of innovation, and on politically and geographically defined systems that influence the competitiveness of firms and the prosperity of citizens.
Course Component: Lecture
MGT 6161 Managing Corporate Innovations (3 units)
Strategies and practices of innovation at the corporate level. Topics will include innovation processes and practices, R&D (research and development) management, organizational contexts of innovation management; firm-level theories of innovation management and firm performance; relationships between resources, capabilities, knowledge and skills and innovation, and the nature and influence of inter-organizational relationships (e.g., alliances, joint ventures, acquisitions, networks, ecosystems, etc.) on firms' innovative capacity.
Course Component: Lecture

MGT 6169 Recent Topics in Innovation Management (3 units)
Seminar course focusing on specific emerging themes in innovation management. Current themes of interest include: commercialization of innovations; inter-organizational collaborations and relationships in innovation management; impact of globally distributed innovation systems on innovation management, innovation performance, and competitiveness.
Course Component: Lecture

MGT 6190 Research Topics in Management (3 units)
Seminar course focusing on current research issues and topics in management. Topics may change from year to year.
Course Component: Lecture

MGT 6500 Théorie de la finance (3 crédits)
Quatre thèmes de la finance : les caractéristiques et limites du paradigme néoclassique de l'entreprise; l'asymétrie d'information et la théorie du signal; l'aléa moral et la théorie de l'agence; le contrôle corporatif. Problématiques théoriques et empiriques reliées aux décisions de financement corporatif, au processus d'acquisition du capital, à la gouvernance d'entreprise et à la conception des programmes de rémunération, aux fusions et acquisitions, à la gestion des risques, et à la couverture de risque dans un contexte corporatif.
Volet : Cours magistral

MGT 6502 Gestion des risques financiers et produits dérivés (3 crédits)
Comprendre la problématique de la gestion des risques financiers du point de vue d'une société non financière, avec une attention particulière à la mesure du risque et l'utilisation d'instruments pour couvrir les risques. Savoir comment les produits dérivés tels que les options, les contrats à terme (contrats futurs ou forward), les swaps, et les plafonds de taux d'intérêt peuvent être évalués. Les relations d'arbitrage, l'évaluation risque-neutre, la création synthétique d'options, les méthodes numériques et l'évaluation du risque de crédit.
Volet : Cours magistral

MGT 6512 Entrepreneurial social (3 crédits)
Les entrepreneurs sociaux sont des agents du changement qui s'efforcent de créer une valeur sociale par l'entrepreneuriat. Étude du nouveau domaine qu'est l'entrepreneuriat social et d'autres domaines connexes où les objectifs et les moyens sociaux et économiques s'entremêlent. Introduction aux concepts, pratiques, possibilités et défis propres à l'entrepreneuriat social et aux domaines qui s'y rattachent. Cadres et outils qui permettent de réussir dans des secteurs non traditionnels de l'entrepreneuriat. Participation des étudiants à une initiative d'apprentissage en commun pour leur permettre de mieux comprendre ces secteurs en évolution.
Volet : Cours magistral

MGT 6560 Systèmes d'innovation (3 crédits)
Examen du contexte dans lequel les entreprises et les organismes exercent leurs activités, et de la nature et l'évolution des industries. Survol de la recherche sur la nature et l'évolution des systèmes d'innovation régionaux et nationaux, ainsi que les systèmes dont les cadres politiques et géographiques sont bien définis et qui ont une incidence sur la compétitivité des entreprises et la prospérité des citoyens.
Volet : Cours magistral

MGT 6590 Sujets de recherche en gestion (3 crédits)
Ce cours donne sous forme de séminaire porte sur des questions et des sujets de recherche d'actualité dans le domaine de la gestion. Les sujets traités dans ce cours peuvent changer d'année en année.
Volet : Cours magistral

MGT 6599 Stage de recherche / Praticum Research (3 crédits / 3 units)
Ce stage s'adresse aux étudiants qui désirent effectuer un projet de recherche auprès d'un organisme comme une entreprise, un ministère ou organisme public, une association à but non lucratif, un groupe de réflexion ou un établissement de recherche. Il a pour but de donner aux étudiants intéressés l'occasion d'appliquer les compétences en recherche acquises dans le cadre de ce programme. / Completion of a research project with an organization such as a company, a government department or agency, a non-profit organization, a think-tank, and other research institutions. Application of research skills acquired during the program.
Volet / Course Component: Stage / Work Term
Permission of the Department is required.

MGT 6591 Séminaires de recherche en gestion / Management Research Seminar Series
Séminaires de recherche avec la participation de conférenciers invités. Les étudiants doivent assister à au moins six des séminaires des conférenciers invités durant leur programme. Noté S (satisfaisant) ou NS (non satisfaisant). / Research seminar series with invited speakers. Students must attend at least six of the invited speakers' seminars over the duration of their program. Graded S (Satisfactory) or NS (Not Satisfactory).
Volet / Course Component: Recherche / Research

MGT 6598 Lectures dirigées / Directed Readings (3 crédits / 3 units)
Études avancées dans un domaine de gestion sous la direction d'un professeur et aboutissant à un rapport écrit. L'étudiant peut proposer un sujet de recherche. / Advanced study in an area of management under the supervision of a professor and leading to a major written report. Students may propose research topics.
Volet / Course Component: Recherche / Research

MGT 7101 Advanced Methodological Foundation of Management Research (3 units)
The purpose of this course is to explore the context and traditions of knowledge generation in Management research. Topics include the purpose of social science research; nature and role of theories; ontology and epistemology; theory construction, testing, falsification and inference; metrics of robust research design; “positivist” and “non-positivist” research methodologies; and research ethics. This course considers how to design scholarly research.
Course Component: Lecture
Exclusion: MGT 5100

MGT 7102 Theoretical Foundations of Management (3 units)
The foundations of various management disciplines are examined in the context of emerging and sometimes conflicting theoretical paradigms such as rationale exchange process, sustainability, responsible management and need to balance environmental, economic and social outcomes.
Course Component: Seminar

MGT 7103 Advanced Quantitative Analyses in Management (3 units)
Topics will include measurement, univariate and simple multivariate statistics such as simple linear regression, multiple regression, logistic regression, analysis of variance, analysis of covariance, principal components analysis, and exploratory factor analysis. Selection and application of major statistical packages.
Course Component: Lecture

MGT 7104 Special Topics in Analysis for Management Research (1.5 unit)
Exploration of advanced analytical approaches from the domain perspective. Understanding of the benefits and limitations of each analytical approach and learning about the judgment required across management disciplines in the application of the approach. Application of computer-based implementations of analytical methods. Covering analyses and models used in varied management disciplines.
Course Component: Lecture

MGT 7105 Structural Equation Modeling (SEM) (1.5 unit)
Structural equation modeling is a multivariate statistical analysis technique that is used to analyze the structural relationship between measured variables and latent constructs. Topics include: concepts and methods underlying SEM; path analysis involving observed variables; confirmatory factor analysis; path analysis involving latent variables; using SEM to evaluate the multidimensionality of a measure; multi-group SEM. Students will gain hands on experience through the practical use of major statistical software.
Course Component: Lecture

MGT 7106 Hierarchical Linear Modeling (HLM) (1.5 unit)
Hierarchical Linear Modeling is a statistical approach used when data is clustered or nested (e.g., across time, within groups). Topics include: theory and application of hierarchical or multilevel models for clustered data, including linear and logistic models; longitudinal and repeated measures designs; practical aspects of developing models to address research questions and interpreting the findings. Students will gain hands on experience through the practical use of major statistical software.
Course Component: Lecture

MGT 7107 Econometrics for Business Studies (3 units)
This course is an intermediate level Ph.D. course in econometrics and exposes students to theoretical econometrics concepts, methodological issues that arise when doing empirical research, and empirical applications. The goal is to learn technical skills required to undertake empirical work in different business fields. The main topics covered include: different estimation techniques such as the generalized method of moments (GMM) and the quasi-maximum likelihood (QML); panel data models such as the fixed and the random effects models; the econometrics of qualitative and limited dependent variable such as the logit and probit models, and the Heckman approach; time-series models such as VAR and GARCH models.
Course Component: Lecture

MGT 7108 Optimization and Modeling (3 units)
This course is designed for students who have already taken courses in optimization and wish to delve deeper. The course will balance providing the theory behind optimization and providing an introduction into methodologies dealing with stochastic, real-world, large scale problems (e.g., decomposition techniques). Topics covered will include convex optimization, stochastic programming, dynamic programming, robust optimization, metaheuristics and machine learning techniques.
Course Component: Lecture

MGT 7302 Qualitative Research Methods (3 units)
Designing qualitative studies, collecting and analyzing qualitative data, attaining research credibility, and writing a qualitative research report. Topics will include the case study, ethnography, phenomenology and grounded theory. Introduction to the use of qualitative data analysis software (such as N-Vivo). Critical evaluation of qualitative studies.
Course Component: Lecture
Exclusion: MGT 5102.

MGT 7501 Fondements méthodologiques avancés de la recherche en gestion (3 crédits)
The purpose of this course is to explore the context and traditions of knowledge generation in Management research. Topics include the purpose of social science research; nature and role of theories; ontology and epistemology; theory construction, testing, falsification and inference; metrics of robust research design; “positivist” and “non-positivist” research methodologies; and research ethics. This course considers how to design scholarly research.
Volet : Cours magistral
Exclusion : MGT 5500.

MGT 7502 Fondements théoriques de la gestion (3 crédits)
Les fondements des diverses disciplines en gestion sont examinés dans le contexte des nouveaux paradigmes théoriques et des paradigmes théoriques parfois conflictuels, par exemple le processus d’échange rationnel, la durabilité, la gestion responsable et la nécessité d’équilibrer les résultats environnementaux, économiques et sociaux.
Volet : Cours magistral

MGT 7998 Lecture dirigée / Directed Readings (3 crédits / 3 units)
Études avancées dans un domaine de gestion sous la direction d’un professeur et aboutissant à un rapport écrit. L’étudiant peut proposer un sujet de recherche. / Advanced study in an area of management under the supervision of a professor and leading to a major written report. Students may propose research topics.
Volet / Course Component: Recherche / Research

MGT 8101 Financial Accounting and Reporting (3 units)
The theoretical foundations of accounting research and methodologies are examined. Topics include the role of accounting information in capital markets, earnings management, voluntary disclosure, the impact of accounting on judgment and decisions, accounting standards, setting accounting standards for sustainable development, intangibles and intellectual capital.
Course Component: Lecture

MGT 8102 Accounting and Control (3 units)
The role of Accounting and other control instruments in ensuring good corporate governance. Topics include executive compensation, ownership structure, the role of the board of directors, effectiveness of internal controls, enterprise risk management, sustainable management, corporate governance requirements and practices in the public and private sectors.
Course Component: Lecture
MGT 8103 Special Topics in Accounting and Control Research (3 units)
Critical evaluation of studies in targeted domains of accounting and control. Identification and evaluation of new orientations with an in-depth analysis of historical developments of the domain. Specific domains explored depend on the professor leading the seminar. Topics are offered on a rotating basis. Presentation and discussion of thesis project and other personal research projects.

Course Component: Lecture

MGT 8104 Theoretical Entrepreneurship Research (3 units)
Foundation theories of entrepreneurship are examined, including risk and uncertainty, rationales for enterprise growth, innovation process, opportunity recognition, market behaviour, financing new and growing ventures, and entrepreneurship as a social construction.

Course Component: Lecture

MGT 8105 Entrepreneurship Research (3 units)
This course focuses on selected topics associated with entrepreneurship research, including internationalization processes, entrepreneurial cognition, feminist entrepreneurship, entrepreneurial marketing, financing enterprise growth, public policy issues and entrepreneurship support, science-based, social and environmental entrepreneurship.

Course Component: Lecture

MGT 8106 Special Topics in Entrepreneurship Research (3 units)
Critical evaluation of studies in targeted domains of entrepreneurship. Identification and evaluation of new orientations with an in-depth analysis of historical developments of the domain. Specific domains explored depend on the professor leading the seminar. Topics are offered on a rotating basis. Presentation and discussion of thesis project and other personal research projects.

Course Component: Lecture

MGT 8107 Finance (3 units)
Theoretical foundations of corporate finance and governance; capital budgeting and investment/growth strategies; strategy and finance: risk and risk management: options; financing/capital structure decisions; payout/dividend policies; mergers and acquisitions; derivative theory (including theories of capital structure); derivatives and fixed-income securities; and risk capital financing.

Course Component: Lecture

MGT 8108 Recent Developments in Finance Research (3 units)
Issues in modern finance such as behavioural finance, game-theoretic approaches to corporate finance; ethics in finance, agency theory, regulations and securities agency (e.g., security exchange commission) roles; and financial institutions and services.

Course Component: Lecture

MGT 8109 Special Topics in Finance Research (3 units)
Critical evaluation of studies in targeted domains of finance. Identification and evaluation of new orientations with an in-depth analysis of historical developments of the domain. Specific domains explored depend on the professor leading the seminar, with topics offered on a rotating basis. Presentation and discussion of thesis project and other personal research projects.

Course Component: Lecture

MGT 8110 Current Issues in Health Systems Management (3 units)
Overview of developments, issues and challenges in health systems management, emphasizing management from a health systems perspective. Emerging innovations and the applications of innovations in health systems.

Course Component: Lecture

MGT 8111 Research Design and Methods for Health Systems Research (3 units)
Study designs used in healthcare informatics and research, such as experimental designs, observational and predictive studies, and qualitative inquiries. Review of appropriate analytical approaches for each study design.

Course Component: Lecture

MGT 8112 Special Topics in Health Systems Research (3 units)
Critical evaluation of studies in targeted domains of health systems. Identification and evaluation of new orientations with an in-depth analysis of historical developments of the domain. Specific domains explored depend on the professor leading the seminar, with topics offered on a rotating basis. Presentation and discussion of thesis project and other personal research projects.

Course Component: Lecture

MGT 8113 Fundamentals of Human Resources Management (3 units)
Examination of the foundational research areas in Human Resources Management practice. Topics include job analysis, employee recruitment, selection and assessment methods, job performance, fairness and bias and psychometric principles.

Course Component: Lecture

MGT 8114 Fundamentals of Organizational Behaviour (3 units)
Overview of managerial/organizational practices aimed at maximizing work motivation and well-being. Theories of work motivation, leadership, team dynamics, mentoring, occupational health psychology, work-life conflict and facilitation, management of change, and organizational theory.

Course Component: Lecture

MGT 8115 Special Topics in Organizational Behaviour and Human Resources Management Research (3 units)
Critical evaluation of studies in targeted domains of organizational behaviour and human resources management. Identification and evaluation of new orientations with an in-depth analysis of historical developments of the domain. Specific domains explored depend on the professor leading the seminar, with topics offered on a rotating basis. Presentation and discussion of thesis project and other personal research projects.

Course Component: Lecture

MGT 8116 Strategic Management (3 units)
This course develops an understanding of the theoretical foundations of research in strategy. The concern is with developing an understanding of competitive behavior in for-profit and not-for-profit organizations, and with understanding the relationships between an organization's environment, its strategy, and performance outcomes. These include areas such as value creation and firm performance, competition and markets, resources and capabilities, and governance and control.

Course Component: Lecture

MGT 8117 Organization Theory (3 units)
This course provides an overview of the historical roots of organization theory, and a focus on contemporary schools of thought in this area. Topics include resource-based, population ecology, institutional, critical, discursive and practice-based theories. Theoretical and empirical material illustrating various schools of thought will be discussed.

Course Component: Lecture
MGT 8118 Special Topics in Strategy and Organization Research (3 units)
Critical evaluation of studies in targeted domains of strategy and organization. Identification and evaluation of new orientations with an in-depth analysis of historical developments of the domain. Specific domains explored depend on the professor leading the seminar. Topics are offered on a rotating basis. Presentation and discussion of thesis project and other personal research projects.
Course Component: Lecture

MGT 8501 Comptabilité financière et présentation de l'information financière (3 crédits)
Les fondements théoriques de la recherche et des méthodes comptables. Les sujets abordés sont : rôle de l'information comptable dans les marchés financiers, gestion du résultat, divulgation volontaire, effets de la comptabilité sur les jugements et les décisions, normes comptables, établissement des normes comptables pour le développement durable, incorporels et capital intellectuel.
Volet : Cours magistral

MGT 8502 Comptabilité et contrôle (3 crédits)
Le rôle de la comptabilité et d'autres instruments de contrôle dans la bonne gouvernance d'entreprise. Les sujets abordés sont : rémunération des cadres, structure du capital social, rôle du conseil d'administration, efficacité des contrôles internes, gestion du risque d'entreprise, gestion durable, exigences et pratiques relatives à la gouvernance d'entreprise dans les secteurs public et privé.
Volet : Cours magistral

MGT 8503 Thèmes spéciaux de recherche en comptabilité et contrôle (3 crédits)
Évaluation critique d'études provenant de sujets précis du champ de la comptabilité et du contrôle. L'identification et l'évaluation d'orientations novatrices et analyse poussée des développements historiques du domaine. Les sujets traités varient d'année en année, et sont intimement liés à l'expertise des professeurs du champ. Présentation et discussion du projet de thèse ainsi que d'autres projets de recherche individuels.
Volet : Cours magistral

MGT 8504 Recherche en théories de l'entrepreneuriat (3 crédits)
Le fondement des théories de l'entrepreneuriat est examiné, dont le risque et l'incertitude, les justifications de la croissance d'entreprise, le processus d'innovation, la reconnaissance des perspectives, l'orientation des marchés, le financement des nouvelles entreprises et des entreprises en expansion et l'entrepreneuriat en tant que construction sociale.
Volet : Cours magistral

MGT 8505 Recherche en entrepreneuriat (3 crédits)
Sujets choisis sur la recherche en entrepreneuriat, dont les processus d'internationalisation, la cognition entrepreneuriale, l'entrepreneuriat féminin, le marketing entrepreneuriat, le financement des entreprises en expansion, les questions de politique publique et le soutien à l'entrepreneuriat, l'entrepreneuriat à vocation scientifique, sociale et environnementale.
Volet : Cours magistral

MGT 8506 Thèmes spéciaux de recherche en entrepreneuriat (3 crédits)
Évaluation critique d'études provenant de sujets précis du champ de l'entrepreneuriat. L'identification et l'évaluation d'orientations novatrices et analyse poussée des développements historiques du domaine. Les sujets traités varient d'année en année, et sont intimement liés à l'expertise des professeurs du champ. Présentation et discussion du projet de thèse ainsi que d'autres projets de recherche individuels.
Volet : Cours magistral

MGT 8507 Finance (3 crédits)
Les fondements théoriques de la finance et de la gouvernance d'entreprise, l'établissement du budget des immobilisations et des investissements ainsi que les stratégies de croissance, la stratégie et la finance : risque et gestion du risque : les options, les décisions en matière de financement et de structure du capital, les politiques en matière de versements et de dividendes, les fusions et les acquisitions, la théorie des produits dérivés (y compris les théories de la structure du capital), les produits dérivés et les titres à revenu fixe et le financement du capital de risque.
Volet : Cours magistral

MGT 8508 Développements récents de la recherche en finance (3 crédits)
Examen des questions découlant de la finance moderne, notamment la finance comportementale, les approches de la théorie des jeux en finance d'entreprise, la déontologie financière, la théorie de la délégation, les rôles des organismes de réglementation des valeurs mobilières (p. ex. commission des valeurs mobilières) et les établissements et les services financiers.
Volet : Cours magistral

MGT 8509 Thèmes spéciaux de recherche en finance (3 crédits)
Volet : Cours magistral

MGT 8510 Problèmes actuels dans la gestion des systèmes de santé (3 crédits)
Un aperçu des développements, des problèmes et des défis liés à la gestion des systèmes de santé en se concentrant sur la gestion du point de vue des systèmes de santé. Les innovations émergentes et l'application des innovations dans les systèmes de santé seront abordées.
Volet : Cours magistral

MGT 8511 Modèle et méthodes de recherche en systèmes de santé (3 crédits)
Volet : Cours magistral

MGT 8512 Thèmes spéciaux de recherche en systèmes de santé (3 crédits)
Évaluation critique d'études provenant de sujets précis du champ de systèmes de santé. L'identification et l'évaluation d'orientations novatrices et analyse poussée des développements historiques du domaine. Les sujets traités varient d'année en année, et sont intimement liés à l'expertise des professeurs du champ. Présentation et discussion du projet de thèse ainsi que d'autres projets de recherche individuels.
Volet : Cours magistral
Course Component:

**MGT 8513 Principes de base de la gestion des ressources humaines (3 crédits)**
Examen des domaines de recherche fondamentaux dans la pratique de gestion des ressources humaines. Les sujets abordés sont : analyse des emplois, recrutement des employés, méthodes de sélection et d’évaluation, rendement au travail, équité et biais et principes psychométriques.

Volet : Cours magistral

**MGT 8514 Principes de base du comportement organisationnel (3 crédits)**
Analyse des techniques de gestion employées dans le but de maximiser la motivation et le mieux-être au travail. Les théories de la motivation au travail, le leadership, la dynamique d’équipe, le mentorat, la psychologie en matière de santé au travail, les conflits et la facilitation travail-famille, la gestion du changement et la théorie organisationnelle.

Volet : Cours magistral

**MGT 8515 Thèmes spéciaux de recherche en comportement organisationnel et gestion des ressources humaines (3 crédits)**

Volet : Cours magistral

**MGT 9997 Examen de synthèse / Comprehensive Examination**
Volet / Course Component: Cours magistral / Lecture

**MGT 9998 Projet de thèse / Thesis Project**
Projet de thèse / Thesis Project
Volet / Course Component: Recherche / Research
Prequisite : MGT 9997

**EVD 5100 Seminar in Environmental Sustainability (3 units)**
Overview of environmental sustainability issues using climate change as an example. Application of integrated analyses based on concepts in science, law, economics and policy to devise policy solutions. The debate about the scientific evidence for climate change and international efforts to negotiate an agreement. The economic, political and social dimensions of climate change and measures taken both nationally and internationally to mitigate its effects.

Course Component: Seminar

**EVD 5109 Applied Environmental Sustainability (3 units)**
Uses an environmental sustainability case study, such as climate change, to learn how to synthesize information about a problem from multiple disciplinary perspectives, to critically evaluate such information using rigorous methodological approaches, and to design and evaluate policy or regulatory solutions.

Course Component: Seminar

**EVD 5111 Capstone Seminar in Environmental Sustainability (3 units)**
Involves partnering with organization(s) working on a sustainability issue. Students work in interdisciplinary teams to identify the scientific, economic, legal and social dimensions of a particular environmental problem, evaluate a set of candidate solutions, and recommend an approach.

Course Component: Seminar

**EVD 5113 Foundations of Environmental Policy (3 units)**
Study of the key political and administrative factors affecting the formulation and implementation of environmental policy, including democratic institutions, various methods for citizen and stakeholder engagement and their influence on the decision-making process in government, public opinion and the framing of policy problems, values and the use of scientific evidence in policy-making, lobbying and the role of interest representation, federalism and multi-level environmental governance, and the international governance of environmental problems. Case studies will place Canada in a comparative context and explore the importance of political factors across areas of environmental policy.

Course Component: Seminar

**EVD 5114 Professional Skills for Environmental Sustainability (1.5 unit)**
Oral and written communications skills, including presenting to parliamentary committees, preparing memos to cabinet, writing editorials, doing media interviews, and producing interdisciplinary public policy reports. Project and process management skills, including multi-stakeholder processes.

Course Component: Seminar

**EVD 5121 Foundations of Environmental Science (3 units)**
Provides students with a thematic understanding of the current state of environmental science. Major themes include: the set of environmental issues that are currently of major concern in Canada and abroad; the range of scientific approaches currently employed to understand and predict the effects of human activities on ecosystems; the nature of environmental science evidence; and how environmental sustainability is characterized from the perspective of environmental science.

Course Component: Seminar

**EVD 5122 Foundations of Environmental Economics (3 units)**
Key elements of economics including formal models and their underlying assumptions as they relate to the development of sustainability policy. Covers concepts such as public goods, market failure, non-market valuation, incentives, welfare economics, regulation, the equity-efficiency trade-off and market-based instruments. The course explains how fundamental economic concepts, particularly their advantages and limitations, are used to analyze issues at the interface of the economy and the environment. Examines renewable (e.g., fisheries, forests) and non-renewable (e.g., oil, gas, minerals) resource management and other topics (e.g., climate change, ozone depletion, cap and trade) in applied environmental economics. Explores the institutions and trade-offs that individuals and governments face in the context of sustainability policy.

Course Component: Seminar

Volet : solutions possibles et pour recommander les mesures à prendre.

Les étudiants forment des équipes multidisciplinaires pour étudier
partenariat avec des organisations travaillant en développement durable.

Étude de cas en développement durable (changements climatiques, par
Exemple) pour apprendre à synthéiser l’information sur un problème à

Évaluation de l’efficacité environnementale, sociale et économique des
defis liés à l’environnement, incluant la réglementation traditionnelle de

Les enjeux environnementaux et le système de réglementation du

Volet : Séminaire

Étude de cas en développement durable (changements climatiques, par
Exemple) pour apprendre à synthéiser l’information sur un problème à

Étude de divers concepts thématiques de l’état actuel des

Étude de divers concepts : patrimoine commun; échec des marchés; non
évaluation des valeurs courantes; équité et efficience; instruments reposant sur les mécanismes
de marché. On examinera plus en détail les concepts fondamentaux de

Étude de divers concepts: patrimoine commun; échec des marchés; non
evaluation des valeurs courantes; équité et efficience; instruments reposant sur les mécanismes
de marché. On examinera plus en détail les concepts fondamentaux de

Volet : Cours magistral

Volet : Séminaire

Volet : Cours magistral

Volet : Cours magistral

Volet : Cours magistral

Volet : Cours magistral

Volet : Cours magistral

Volet : Cours magistral
**EVD 5524 Rudiments du droit de l'environnement (3 crédits)**
Rudiments du droit de l'environnement, y compris la théorie du développement durable, la division constitutionnelle des pouvoirs, les démarches visant à réglementer les questions environnementales, avec des exemples de cadres légaux pour différents problèmes environnementaux et accès à la justice.
**Volet : Séminaire**

**EVD 6001 Stage coop I / Co-Op Work Term I (6 crédits / 6 units)**
Expérience en milieu de travail. Évalué P (réussite) / F (échec) par un professeur du programme selon les résultats du rapport écrit et l'évaluation du superviseur de stage. Préalable : permis du responsable des études supérieures. / Experience in a workplace setting. Evaluated P (Pass) / F (Fail) by a professor in the program based on the written report and the evaluation of the internship supervisor.
**Volet / Course Component: Stage / Work Term**

**EVD 6002 Stage coop II / Co-Op Work II (6 crédits / 6 units)**
Expérience en milieu de travail. Évalué P (réussite) / F (échec) par un professeur du programme selon les résultats du rapport écrit et l'évaluation du superviseur de stage. Préalable : permission du responsable des études supérieures. / Experience in a workplace setting. Evaluated P (Pass) / F (Fail) by a professor in the program based on the written report and the evaluation of the internship supervisor.
**Volet / Course Component: Stage / Work Term**

**EVD 6112 Selected Topics in Environmental Sustainability (3 units)**
In-depth examination of a question or topic linked to new trends or research areas in environmental sustainability.
**Course Component: Lecture**

**EVD 6512 Thèmes choisis en durabilité de l'environnement (3 crédits)**
Analyse approfondie d'une problématique ou d'une question liée aux nouvelles tendances en recherche ou aux nouveaux thèmes de recherche en durabilité de l'environnement.
**Volet : Cours magistral**

**EVD 6912 Thèmes choisis en durabilité de l'environnement / Selected Topics in Environmental Sustainability (3 crédits / 3 units)**
Analyse approfondie d'une problématique ou d'une question liée aux nouvelles tendances en recherche ou aux nouveaux thèmes de recherche en durabilité de l'environnement. / In-depth examination of a question or topic linked to new trends or research areas in environmental sustainability.
**Volet / Course Component: Cours magistral / Lecture**
Préalable : connaissance passive de l'anglais. / Prerequisite: passive knowledge of French

**EVD 6932 Lectures dirigées en durabilité de l'environnement / Directed Readings in Environmental Sustainability (3 crédits / 3 units)**
Cours individuel ayant pour objectif d'approfondir les connaissances de l'étudiant dans un domaine particulier ou de lui permettre de se familiariser avec un nouveau domaine. Le sujet est déterminé et développé en consultation avec le professeur responsable et en conformité avec les directives de l'Institut de l'environnement. On permet un maximum d'un cours de lectures dirigées par étudiant et la permission n'est accordée que dans des circonstances exceptionnelles. / Individual course aimed at deepening a student's knowledge of a particular area or at gaining knowledge of a new area. The topic is selected and developed in consultation with the supervising professor in accordance with institute guidelines. The work submitted for this course must be different from that submitted for other courses, including the research proposal, the thesis or the research paper. Maximum of one directed readings course per student, and permission is granted only under exceptional circumstances.
**Volet / Course Component: Recherche / Research**
Préalable: Connaissance passive de l'anglais. / Prerequisite: Passive knowledge of French.

**EVD 6999 Mémoire / Research Paper (6 crédits / 6 units)**
**Volet / Course Component: Recherche / Research**

**EVD 7997 Projet de thèse / Thesis Proposal**
**Volet / Course Component: Recherche / Research**

**EVD 8100 Theory and Practice in Environmental Sustainability (3 units)**
Characterization of environmental sustainability from the perspective of economics, political science, environmental science, and law. Demonstration of how often-divergent perspectives and values of stakeholders from various backgrounds frame both sustainability problems themselves, and acceptable solutions.
**Course Component: Seminar**

**EVD 8500 Théorie et pratique en durabilité environnementale (3 crédits)**
La caractérisation de la durabilité environnementale du point de vue de la science économique, de la science politique, de la science environnementale et du droit. Démonstration de comment les perspectives et les valeurs divergentes des parties prenantes de divers horizons définissent à la fois les problèmes et les solutions acceptables en durabilité.
**Volet : Séminaire**

**EVD 8901 Conception de recherche et méthodologie pour la recherche en durabilité de l'environnement / Research Design and Methods for Environmental Sustainability (3 crédits / 3 units)**
Vue d'ensemble des méthodes de recherche employées dans les quatre domaines principaux de la durabilité (science de l'environnement, droit, politique et économie). À l'aide d'études de cas, examen des types d'inferences causales que l'on peut ou ne peut pas tirer d'un plan de recherche, les menaces à la déduction valable et les plans de recherche pouvant atténuer ces menaces. Accent particulier sera mis sur la relation entre les conceptions de recherche et la force de l'inference causale. / Overview of research methods employed in the four main subject areas underlying sustainability (environmental science, law, policy and economics). Through case studies, examination of the kinds of causal inferences one can and cannot draw from a research design, threats to valid inference, and research designs that can mitigate those threats. Particular emphasis placed on the relationship between research designs and strength of causal inference.
**Volet / Course Component: Séminaire / Seminar**

EVD 9997 Examen d'entrée / Qualifying Examination
Examen d’entrée / Qualifying Examination
Volet / Course Component: Recherche / Research

EVD 9998 Projet de thèse / PhD Thesis Proposal
Projet de thèse / PhD Thesis Proposal
Volet / Course Component: Recherche / Research