HONOURS BACHELOR OF COMMERCE (OPTION IN HEALTHCARE ANALYTICS) AND MASTER OF SCIENCE IN MANAGEMENT

Overview

Honours Bachelor of Commerce (Option in Healthcare Analytics)

Healthcare systems are undergoing unprecedented transformation fuelled by the digitization of services and investments in health information technologies. Our option in Healthcare Analytics is a field built on the crucial role that data, systems engineering, management, and organizational innovation play in improving the quality and timeliness of service delivery in a high performing healthcare system. This field answers a need to develop expertise to create the research and training capabilities required for transforming healthcare into a system that adheres to the principles of patient-centered care and participatory medicine.

This program is offered in English and in French.

Master of Science in Management (Research Project)

This exciting integrated accelerated bachelor’s/master’s program allows students to earn two degrees in five years. Designed for students with a strong academic record and a keen interest in conducting business research, this integrated program enables select undergraduate students to get a jump-start in their project-based master’s program by completing two graduate courses during their last year of the undergraduate degree, and starting their research project in a familiar environment over the summer bridge term between the bachelor’s and master’s programs. This integrated program focuses on empowering students to develop their business acumen and research skills in a specialized field of study, and to contribute towards smarter decisions about policy and practice in creating a better Canada.

This program is offered in English only.

For further information on this Dual Fast-track Degree, please communicate with the Student Services Centre via undergraduate@telfer.uOttawa.ca.

Program Requirements

Honours Bachelor of Commerce (Option in Healthcare Analytics)

Co-operative education is available with this program.

The French immersion stream is available with the Honours Bachelor of Commerce. The MSc in Management program is offered in English only.

Compulsory courses at the 1000 level

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM 1301</td>
<td>Business and Society</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 1305</td>
<td>Mathematics for Business</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 1340</td>
<td>Financial Accounting</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 1370</td>
<td>Applications of Information Technology for Business</td>
<td>3 Units</td>
</tr>
<tr>
<td>ECO 1102</td>
<td>Introduction to Macroeconomics</td>
<td>3 Units</td>
</tr>
<tr>
<td>ECO 1104</td>
<td>Introduction to Microeconomics</td>
<td>3 Units</td>
</tr>
<tr>
<td>ENG 1131</td>
<td>Effective Business English</td>
<td>3 Units</td>
</tr>
</tbody>
</table>

Compulsory courses at the 2000 level

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM 2302</td>
<td>Business Analytics</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 2303</td>
<td>Statistics for Management</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 2304</td>
<td>Applications of Statistical Methods in Business</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 2320</td>
<td>Marketing</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 2336</td>
<td>Organizational Behaviour</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 2337</td>
<td>Human Resource Management</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 2341</td>
<td>Managerial Accounting</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 2350</td>
<td>Financial Management</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 2372</td>
<td>Management Information Systems</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 2381</td>
<td>Business Communication Skills</td>
<td>3 Units</td>
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</table>

Compulsory courses at the 3000 level

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM 3301</td>
<td>Operations Management</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 3318</td>
<td>International Business</td>
<td>3 Units</td>
</tr>
</tbody>
</table>

Compulsory courses at the 4000 level

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM 4311</td>
<td>Strategic Management</td>
<td>3 Units</td>
</tr>
</tbody>
</table>

Optional courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9 optional course units in administration (ADM)</td>
<td>9 Units</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15 elective course units from another faculty</td>
<td>15 Units</td>
</tr>
<tr>
<td></td>
<td>15 elective course units</td>
<td>15 Units</td>
</tr>
</tbody>
</table>

Total: 102 Units

Note(s)

1

A maximum of 6 course units at the 1000 level can count towards this requirement.

Healthcare Analytics Option Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM 3363</td>
<td>Healthcare Informatics for Managers</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 4307</td>
<td>Business Forecasting Analytics</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 4363</td>
<td>Business Optimization Analytics</td>
<td>3 Units</td>
</tr>
<tr>
<td>ADM 4964</td>
<td>Application of Business Analytics</td>
<td>3 Units</td>
</tr>
</tbody>
</table>

6 optional course units from:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM 3305</td>
<td>Business Simulation Analytics</td>
<td>6 Units</td>
</tr>
<tr>
<td>ADM 3308</td>
<td>Business Data Mining</td>
<td></td>
</tr>
<tr>
<td>BIO 4158</td>
<td>Applied Biostatistics</td>
<td></td>
</tr>
<tr>
<td>ECO 3125</td>
<td>Introduction to Health Economics</td>
<td></td>
</tr>
<tr>
<td>HSS 3101</td>
<td>Health Research: Quantitative and Qualitative Approaches</td>
<td></td>
</tr>
<tr>
<td>HSS 4303</td>
<td>Epidemiology</td>
<td></td>
</tr>
</tbody>
</table>

Total: 18 Units

Master of Science in Management (Research Project)

Compulsory Courses

MGT 5200  Foundations for Quantitative Methods  3 Units
MGT 5300  Foundations of Management  3 Units

Concentration Courses

18 course units from the chosen concentration  18 Units

Seminar

MGT 6191  Management Research Seminar Series  1

Research Project

MGT 6997  M.Sc. Research Project  6 Units

Total:  30 Units

MSc list of concentrations

Business Analytics

MGT 5101  Multivariate Research Methods  3 Units
MGT 5301  Predictive analytics  3 Units
MGT 5302  Decision analytics  3 Units
MGT 5303  Management analytics and case studies  3 Units
6 course units from:  6 Units
  MGT 7108  Optimization and Modeling  2
  Elective course from another concentration

Marketing & Behavioral Science

MGT 5100  Research Design Methodologies and the Conduct of Research  3 Units
MGT 5304  Generating marketing Insights  3 Units
MGT 5305  Behavioural insights and interventions  3 Units
3 course units from:  3 Units
  MGT 5101  Multivariate Research Methods
  MGT 5102  Qualitative Research Methods
3 course units from:  3 Units
  MGT 5301  Predictive analytics
  MGT 5306  Recent topics in marketing
3 course units from:  3 Units
  MGT 5101  Multivariate Research Methods
  MGT 5102  Qualitative Research Methods
Elective course from another concentration or another faculty

Entrepreneurship

MGT 5100  Research Design Methodologies and the Conduct of Research  3 Units
MGT 6110  Entrepreneurial Process and Opportunity Recognition  3 Units
3 course units from:  3 Units
  MGT 5101  Multivariate Research Methods
  MGT 5102  Qualitative Research Methods
9 course units from:  9 Units
  MGT 6112  Social Entrepreneurship and Innovation
  MGT 6190  Research Topics in Management
  MGT 8104  Theoretical Entrepreneurship Research
  One of the Innovation Management concentration courses

Innovation Management

MGT 5100  Research Design Methodologies and the Conduct of Research  3 Units
MGT 6191  Management Research Seminar Series  3 Units
3 course units from:  3 Units
  MGT 5101  Multivariate Research Methods
  MGT 5102  Qualitative Research Methods
9 course units from:  9 Units
  MGT 6112  Social Entrepreneurship and Innovation
  MGT 6160  Systems of Innovation
  MGT 6169  Recent Topics in Innovation Management
  One of the Entrepreneurship concentration courses

Finance

MGT 6120  Investment and Portfolio Management  3 Units
MGT 8107  Finance  3 Units
12 course units from:  12 Units
  MGT 5101  Multivariate Research Methods
  MGT 6102  Financial Risk Management and Derivative Securities
  MGT 6111  Venture Capital and Private Equity
  MGT 6121  Application of Empirical Methods in Finance
  MGT 6122  Advanced Corporate Finance and Empirical Methods

Accounting

MGT 5100  Research Design Methodologies and the Conduct of Research  3 Units
MGT 5102  Qualitative Research Methods  3 Units
MGT 6126  Introduction to Qualitative and Experimental Research in Accounting  3 Units
MGT 6127  Sustainability Accounting and Control  3 Units
MGT 6128  Introduction to Accounting Research: Special Topics and New Developments  3 Units
MGT 8101  Financial Accounting and Reporting  3 Units

Organizational Behaviour and Human Resources

MGT 5100  Research Design Methodologies and the Conduct of Research  3 Units
MGT 6130  Evidence-Based HROB Interventions  3 Units
MGT 6131  Current Trends in HROB  3 Units
MGT 8113  Fundamentals of Human Resources Management  3 Units
3 course units from:  3 Units
  MGT 5101  Multivariate Research Methods
  MGT 5102  Qualitative Research Methods
Elective course from another concentration  3

Note(s)

1  Students must attend at least 4 seminars during their studies.
2  MGT 7108 can be replace by an elective course from another concentration or another faculty.

This requirement may be fulfilled by MGT 5101, MGT 5102 or a course in another concentration or another faculty.

**Specific requirements for the master's program**

**Research Project**

The Research Project (RP) is a capstone program component that requires students to conduct applied research with a partnering organization or as part of a Telfer faculty member’s on-going research project. Students must show the ability to work independently (analysis and report writing) and apply knowledge gained in the MSc seminars to a well-defined practical problem. It is not required that the RP makes an original contribution to scholarly literature. Students are discouraged from collecting primary (original) data from human participants given the time taken to receive ethics approval and the short time frame given to complete the RP (3-4 months).

The RP can be theoretical, such as a literature review in which the student demonstrates how the existing academic literature can provide practical insight into a specific problem. It can also be empirical by using primary data (previously collected by a supervising faculty member) or secondary data (e.g., publicly accessible databases; results reported in published or unpublished research papers) to answer relatively simple research questions. Examples could be a replication of previously published research and a focused meta-analysis. Given the program’s focus on facilitating evidence-based practice, the RP’s central aim is giving students the opportunity to use their advanced research skills for informing practice within one organization or several organizations dealing with the same problem.

RP topics must be approved by the Telfer faculty member(s) responsible for coordinating RPs in the students’ concentration. The completed RPs will be evaluated (pass/fail) by the same faculty member(s).

**Co-op Option**

The co-op option is only available to students enrolled in the the research project option.

Co-op students must enroll full-time and complete two work terms:

- ADM 6001
- ADM 6002

**Management Research Seminar Series**

Students must enroll continuously in Management Research Seminar Series (MGT 6191) from the beginning of their program and must attend at least four seminars in the series if they are in the one-year or CO-OP project-based options, and at least six seminars in the series if they are in the two-year thesis-based option. The notation “CTN” (for continuing activity) will be entered for each term until successful completion of the seminar requirements. The program director will confirm attendance and active participation.

**Duration of Program**

The one-year with Research Project option can be completed in three terms or approximately 12 months. The maximum time allowed for completion of this option is two years.

The CO-OP with Research Project option can be completed in either five or six terms (approximately 20 or 24 months). Students preferring to complete this option in five terms are encouraged to take more than two courses during the first winter term. Also, completion within five terms requires that students get approval for their project’s topic and scope by the end of the second fall term. The maximum time allowed for completion of this option is four years.

The two-year with thesis option can be completed in six terms or approximately 24 months but can also be more quickly. The maximum time allowed for completion of this option is four years.