

Academic Handbook 2019-2020



MBAN

Master of Business Analytics



Student Services & International Relations
SSB W263
416-736-5303
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Can't find what you're looking for? Check the Graduate Academic Handbook!



Review important information about:

- tuition and fees
- scholarships and financial aid
- exams, grades and conduct
- petitions and appeals
- student services and enrolment
- student life and clubs
- libraries, transit, childcare, health services

Available on the [Current Graduate Students webpage](#) under "Quick Links"

Disclaimer

The material contained in this Handbook has been submitted by the administrative departments and academic units concerned. All general information and course references have been checked for accuracy as much as possible. If errors or inconsistencies do occur, please bring these to the attention of the responsible department. York University reserves the right to make changes to the information contained in this publication without prior notice. Not every course listed in this handbook need necessarily be offered in any given academic year.

It is the responsibility of all students to familiarize themselves each year with the general information sections of this Handbook and with the sections covering the Schulich School of Business, as well as with any additional regulations that may be on file in the Division of Student Services and International Relations in the Schulich School of Business.

It is the responsibility of all students to be familiar with the specific requirements associated with the degree, diploma or certificate sought. While advice and counseling are available, it is the responsibility of each student to ensure that the courses in which registration is affected are appropriate to the program requirements of the Schulich School of Business.

While the University will make every reasonable effort to offer courses and classes as required within programs, student should note that admission to a degree or other program does not guarantee admission to any given course or class.

EVERY STUDENT AGREES BY THE ACT OF REGISTRATION TO BE BOUND BY THE REGULATIONS AND POLICIES OF YORK UNIVERSITY AND OF THE SCHULICH SCHOOL OF BUSINESS.

In the event of an inconsistency between the general academic regulations and policies published in student handbooks and calendars, and such regulations and policies as established by the Schulich School of Business and Senate, the version of such material as established by the Schulich School of Business and the Senate shall prevail.

York University Policies

York University disclaims all responsibility and liability for loss or damage suffered or incurred by any student or other party as a result of delays in or termination of its services, courses, or classes by reason of force majeure, fire, flood, riots, war, strikes, lock-outs, damage to University property, financial exigency or other events beyond the reasonable control of the University.

York University disclaims any and all liability for damages arising as a result of errors, interruptions or disruptions to operations or connected with its operations or its campuses, arising out of computer failure or non-compliance of its computing systems.

York University is a smoke-free institution. Smoking is permitted in designated areas only.

Important Websites

Resource	URL	Go here for...
The Schulich School of Business official website	schulich.yorku.ca	Program Information, Financial Aid, International Opportunities, Career Development Centre, MySchulich student portal
Schulich Current Graduate Students page	schulich.yorku.ca/current-students/graduate-students	Important Dates, Course Offerings, Wait List, Upcoming Events, Enrolment Details, Academic Petitions and Appeals
Student Services GradBlog	gradblog.schulich.yorku.ca	Student stories, Regular updates about courses, important dates, enrolment and events
York Online Services	currentstudents.yorku.ca	Enrolment & fees, Housing & Transportation, Academic Regulations & Grade Reports
York Counseling & Disability Services	cds.info.yorku.ca	Resources for academic and personal development, individual and group counselling, Learning Skills Workshops
Graduate Business Council	gbcschulich.com	Mission statement, executive reps, student clubs, services and events

2019-2020 Sessional Dates

Summer 2019

Activity	Term S	Term E	Term G
	<i>Most 3.00 credit courses</i>	<i>First-half 1.50 credit courses</i>	<i>Second-half 1.50 credit courses</i>
Class Start Date	May 6	May 6	June 17
Class End Date	July 25	June 14	July 25
Reading Week	n/a	n/a	n/a
Examinations	July 29-Aug 2	June 21	July 29-Aug 2

Fall 2019

Activity	Term F2	Term A	Term M
	<i>Most 3.00 credit courses</i>	<i>First-half 1.50 credit courses</i>	<i>Second-half 1.50 credit courses</i>
Class Start Date	Sept 9	Sept 9	Oct 28
Class End Date	Dec 6	Oct 21	Dec 6
Reading Week	Oct 22-25	n/a	n/a
Examinations	Dec 7-14	Oct 22-25	Dec 7-14

Winter 2020

Term Code	W2: <i>Most 3.00 credit courses</i>	C: <i>First-half 1.50 credit courses</i>	N: <i>Second-half 1.50 credit courses</i>
Class Start Date	Jan 10	Jan 10	Feb 21
Class End Date	Apr 9	Feb 20	Apr 9
Reading Week	Feb 25-28	n/a	n/a
Examinations	Apr 13-19	Feb 25-28	Apr 13-19

2019 Important Dates

Date	Reminder
May 6	First day of Summer classes
May 20	Victoria Day (university closed)
May 24	Mandatory Make-up Day (in lieu of Victoria Day)
July 1	Canada Day (university closed)
July 5	Mandatory Make-up Day (in lieu of Canada Day)
August 5	Civic Holiday (university closed)
September 2	Labour Day (university closed)
September 9	First day of Fall classes
October 14	Thanksgiving - university closed
December 6	Last day of Fall classes

Find Important Dates online!
schulich.yorku.ca/current-students/graduate-students



Contact Us

The School's Division of Student Services & International Relations should be consulted on questions related to admissions, enrolment, registration, grade or course problems, financial assistance or special advising.

Meet us online!
schulich.yorku.ca/student-enrolment-services



Title	Name	Room	E-mail
Associate Dean, Students	Marcia Annisette	W262G	mannisette@schulich.yorku.ca
Assistant Dean, Students	Melissa Judd	W262N	mjudd@schulich.yorku.ca
Financial Administrative Assistant	Heidi Furcha	W262E	hfurcha@schulich.yorku.ca
Student & Enrolment Services			
Director, Student & Enrolment Services	Keshia Gray	W262G	kgray@schulich.yorku.ca
Records & Promotion Assistant	Sandra Osti	W262E	sosti@schulich.yorku.ca
Student Academic Services Coordinator	Ryan Kayet	W262B	rkayet@schulich.yorku.ca
Student Success Coordinator	Fern Best	W262C	fbest@schulich.yorku.ca
Registration & Academic Service Assistant	Kareene Martin	W262P	studentservices@schulich.yorku.ca
Student Programs Assistant	Meghann Fonceca	W263	studentservices@schulich.yorku.ca
Communications Coordinator	Andrea Banerjee	W288	abanerjee@schulich.yorku.ca
Financial Aid			
Manager, Admissions & Financial Aid	Doris Mak	W263C	finaid@schulich.yorku.ca
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Additional Contacts			
Office of the Associate Dean, Academic		N230	ada@schulich.yorku.ca



Professor Murat Kristal
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Denise Dunbar-McFarlane
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 MBAN Corporate Lead & Projects
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Enrolment

Enrolment Process

Registration and Enrolment

- the course enrolment process at York is completed by students online
- the process of making enrolment changes at York is also automated (e.g. changing course sections, substituting one course for another by dropping one and adding another, or dropping a course)
- students without immediate access to a computer may use on-campus terminals, including the library, computer lab, or the computers in the Schulich Student & Enrolment Services Office, W263
- students normally enrol for Summer term courses in March and for Fall and Winter courses in June
- enrolment is on a first-come, first-served basis
- students cannot add or drop courses after the deadline (see page 4 for details)

Enrolment Blocks

All students having an outstanding balance of \$1,000.00 or more will be blocked from enrolling in the Summer, Fall and/or Winter terms.

Enrolment Access Notification

A student's Enrolment Access Period begins on the date and time posted online at currentstudents.yorku.ca. Enrolment access start dates are posted on the Registrar's Office website (registrar.yorku.ca) by selecting "Find out when I can enrol." Enrolment access times are determined according to the number of completed credits a student obtains. Schulich access periods begin on different days. Students with the highest number of credits completed begin first. Once the enrolment access has begun, it continues until the final date to enrol in courses for that term.

We recommend that students enrol as early as possible once their access period begins. We also encourage students to verify their enrolment periodically online.

Course Offerings And Withdrawals

The Master of Business Analytics is a one year, full-time program with a specialized set of courses. Students are not permitted to take additional courses within the MBAN program at Schulich or out of Faculty, except courses specified in the list of electives or by permission from the program director.

Course Withdrawals

- dropping one or more courses will prevent a full-time student from completing the MBAN degree program within the prescribed program length and will result in withdrawal from the program
- see your academic advisor ahead of time to discuss the implications of dropping a course
- this program is offered on a full-time basis only

Other Enrolment Information

Course Cancellations

If a course is cancelled, Student & Enrolment Services immediately informs those enrolled via their Schulich e-mail.

Revised Course Offerings

Revisions to course offerings are also posted on the [Schulich Course Offerings database](#).

Revisions can include:

- cancelled courses
- new courses
- schedule changes (day/time)
- room changes
- new instructors

Master of Business Analytics (MBAN)

The Master of Business Analytics (MBAN) is a professional degree program designed to provide students with the breadth and depth of knowledge to be successful in a wide range of careers in areas such as banking, insurance, marketing, consulting, supply chain management, healthcare, and large technology firms.

Students will gain a conceptual understanding and methodological competence of established techniques in business analytics which are used to create and interpret knowledge in various business environments. They will be able to address complex issues using quantitative methodologies and create value for organizations using business analytics as a key measurement of performance and organizational planning. Graduates will understand how to apply business analytics to generate solutions which balance time, resources and complexity. They will possess a skill set that is both quantitative and qualitative, with the technical competence to analyze data coupled with the skills required to communicate insights effectively.



STUDY OPTIONS

- May entry
- Full-time study only

PROGRAM LENGTH

- 12 months (3 terms)

Academic Advisor

Fern Best
Student Success Coordinator
fbest@schulich.yorku.ca

GRADUATION REQUIREMENTS

- Overall grade point average (GPA) of **4.40 (B-)**, excluding failures
- Successful completion of **45.00 credits** of courses, consisting of:

39.00 credits of Required Core Courses

6.00 credits of Elective Courses

Additional promotion standards apply.

Career Opportunities

With increased data available by newer technologies, banking, healthcare, retail, e-commerce and many others industries are acknowledging the importance of analytics and hiring specialized professionals to analyze big data, create value and drive decision making.

Some of the functional roles where Schulich students are hired include: Forecasting Analyst, Business Analyst, Analytics Consultant, Business Intelligence Manager and Manager – Customer Analytics.

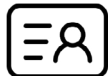
Please contact Gina Pagiamtzis, MBAN Corporate Leads & Projects, with any career related questions:

MBAN Corporate Lead & Projects

Gina Pagiamtzis
gpagiamtzis@schulich.yorku.ca

“The Schulich Master of Business Analytics provided the tools and expertise to launch my career in the high-demand field of data analytics.”

- Yon-Joon Choo, MBAN '16
Senior Consultant, Artificial Intelligence, Deloitte



Find Program Details Online!
schulich.yorku.ca/programs/mban

MBAN at a Glance

Promotion Standards

1. Students enrolled in the Master of Business Analytics program will be reviewed as follows to determine whether or not they have met promotion requirements below:

- initial review upon completion of Term 2
- subsequent review at the end of each following term

2. To maintain their standing in the program, all students must maintain a GPA of at least 4.20 and not receive a grade of F in more than 3.00 credits of course work.

3. Students who do not meet these requirements will be withdrawn.

4. Students who fail a required course must retake it. Students who fail an elective course may retake it, or may elect to take another course. Students who re-take a failed course and receive a second failing grade will be withdrawn.

5. A student who has been withdrawn from the program is advised to seek the help of their Academic Advisor to discuss the best way forward. The student may petition to the Student Affairs Committee to be allowed to continue in the program without having met the promotion requirements.

Master of Business Analytics (MBAN)		
Term 1: Summer (15.00 credits)	Term 2: Fall (15.00 credits)	Term 3: Winter (15.00 credits)
MBAN 5110 3.00 Predictive Modeling I	MBAN 5210 3.00 Predictive Modelling II	MBAN 5330 3.00 Big Data Fundamentals and Applications
MBAN 5120 3.00 Data Management and Programming	MBAN 6120 3.00 Data Science II	MBAN 6400 3.00 Multivariate Methods for Business Analytics
MBAN 5140 3.00 Visual Analytics and Modelling	OMIS 6350 3.00 Advanced Spreadsheet Modelling and Programming for Business	GS/PHIL 5340 3.00 Ethics and Societal Implications of Artificial Intelligence*
MBAN 6110 3.00 Data Science I	MBAN 6090 6.00 Analytics Consulting Project	
MBAN 6300 3.00 Case Analysis and Presentation Skills	Elective 3.00 credits	Elective 3.00 credits

 Core Courses

 Elective Courses

*This is an out-of-faculty course. It is offered by the Department of Philosophy in the Faculty of Graduate Studies at York University.

Academic Requirements:

REQUIRED COURSES (39.00 credits)

MBAN 5110 3.00	Predictive Modelling I
MBAN 5120 3.00	Data Management and Programming
MBAN 5140 3.00	Visual Analytics and Modelling
MBAN 5210 3.00	Predictive Modelling II
MBAN 6110 3.00	Data Science I
MBAN 6120 3.00	Data Science II
MBAN 5330 3.00	Big Data Fundamentals and Applications
MBAN 6300 3.00	Case Analysis and Presentation Skills
OMIS 6350 3.00	Advanced Spreadsheet Modelling & Programming for Business
MBAN 6400 3.00	Multivariate Methods for Business Analytics
PHIL 5340 3.00	Ethics and Societal Implications of Artificial Intelligence
MBAN 6090 6.00	Analytics Consulting Project

ELECTIVE COURSES (6.00 credits)

Students will choose electives from a limited list selected by the Program Director.

Instructions regarding enrolment in elective courses will be sent to students via e-mail from Student & Enrolment Services.

Co-curricular Experience:



REQUIRED WORKSHOPS

Analytics and Professional Development workshops augment academic learning, promote professional development, and are facilitated by industry experts. Participation is expected.

Workshops will be offered over the course of the academic year, and may require single day or multiple day scheduling. Though workshops will not be offered each week, the expectation is that students will be available and attend workshops as they are scheduled. Additionally, some workshops may extend to the weekend.

Students will be informed of upcoming workshops by the MBAN Program Office.



PROFESSIONAL DEVELOPMENT SERIES

MBAN students have access to a variety of specialized services and resources that will support them in their success.

MBAN career related activities include:

- networking events
- information sessions
- interviews
- workshops
- MBAN résumé book

MBAN Career related activities are scheduled throughout the course of the academic year during these designated time periods:

Summer term:

Tuesdays, 9:00 am- 5:30 pm
Fridays, 9:00 am- 5:30 pm

Fall term:

Fridays, 2:00 pm- 10:00 pm

MBAN Faculty

Program Director
Mehmet Murat Kristal
 BSc (METS, Turkey); MBA (Bilkent, Turkey); PhD (North Carolina)
 Associate Professor of Operations Management and Information Systems
 Program Director, Master of Business Analytics;
 Program Director, Master of Management in Artificial Intelligence

Markus Biehl
 MS (Kaiserslautern, Germany); MS & PhD (Georgia Institute of Technology)
 Associate Professor of Operations Management and Information Systems

John Buzacott
 BSc & BE (Sydney, Australia); MSc & PhD (Birmingham, UK); Dr hc (TU Eindhoven, Netherlands)
 Professor Emeritus of Operations Management and Information Systems

Wade D. Cook
 BSc (Mt. Allison); MSC (Queen's); PhD (Dalhousie)
 Professor Emeritus of Operations Management & Information Systems

Adam Diamant
 BSc (Toronto); MSc (Boston); PhD (Toronto)
 Assistant Professor, Operations Management and Information Systems

Victor Garcia
 BA (ILVEM College)
 Sessional Lecturer in Business Analytics

Richard H. Irving
 BASc & MAsc & PhD (Waterloo)
 Associate Professor of Operations Management and Information Systems
 Chair, Operations Management and Information Systems

David Johnston
 BA & MA & PhD (Western Ontario)
 Professor of Operations Management and Information Systems
 Program Director, Master of Supply Chain Management

Stephen Keelan
 BSc & MSc (Guelph)
 Sessional Lecturer in Business Analytics

Henry M. Kim
 BASc (Toronto); MEng (Michigan); PhD (Toronto)
 Associate Professor of Operations Management and Information Systems

Moren Levesque
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 Professor of Operations Management and Information Systems
 Certified General Accountants of Ontario Chair in International Entrepreneurship

Zhepeng (Lionel) Li
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 Sessional Lecturer in Business Analytics

Scott Yeomans
 BAdmin & BSc (Regina); MAsc (Toronto); PhD (McMaster)
 Professor of Operations Management and Information Systems



MBAN Advisory Board

Chair

Murat Kristal
Program Director, Master of Business Analytics;
Program Director, Master of Management in Artificial Intelligence;
Associate Professor,
Operations Management and Information Systems,
Schulich School of Business

Pavel Abdur-Rahman
Data Scientist & Associate Partner,
IBM Cognitive & Robotics Solutions

Sami Ahmed
Vice President & Head of Data, Analytics and AI Transformation,
Bank of Montreal

Jim Anderson
VP Innovation Hub and Senior Consultant,
Environics Analytics

Waleed Ayoub
Chief Technology Officer,
Rubikloud Technologies

David Beaton
Senior Partner,
Custometrics, Inc.

Connie Bonello
Associate Partner,
IBM Canada

Angela Brown
President and CEO,
Moneris Solutions Corporation

Justin DeLuca
Director of Revenue Management & Performance Planning,
Labatt Breweries of Canada

Nat D'Ercole
Partner, Deloitte

Victor Dudemaine
Assistant Vice President,
Data Architecture and Business Intelligence Services,
Sun Life Canada

Pat Finerty
Vice President, Alliances and Business Development,
SAS Institute (Canada) Inc

Dana Fox
Founder,
Waterloo Institute for Smarter Government

Neil Freyke
Chief Data Officer, Group Functions,
Manulife Financial Corporation

Victor Garcia
Managing Director,
ABC Live Corporation

Silvia Gonzalez-Zamora
P&C Director, Organizational Behaviour and Data Business Transformations
National Consulting Financial Services,
KPMG LLP

Hershel Harris
CTO,
Georgian Partners

Peter Husar
VP, Enterprise Customer Data and Analytics,
TD Bank Group

Steven Karan
Senior Director,
Consulting-Data & Analytics
PricewaterhouseCoopers LLP (PwC)

Paul Lewis
Global Vice President,
Industry and Enterprise Architecture and CTO,
Hitachi Vantara

Sanjay Khanna
Director,
Baker and McKenzie LLP

Theo Ling
Partner,
Baker and McKenzie LLP

Ramsey Mansour
Vice President,
Marketing and Strategy,
Purolator

Chris Matys
Founder,
Ignite AI

Alex Mohelsky
Partner, Canadian Data and Analytics Leader,
Ernst & Young LLP

Damien Mok
Director, Rewards & Loyalty Insights and Business Performance,
Royal Bank of Canada

Eric Monteiro
Senior Vice President,
Client Solutions,
Sun Life Financial

Derek Nogiec
Managing Director, Canada
Tableau Software, Inc.

Sumeet Pelia
Director, AI Insights,
Omnia (Artificial Intelligence)
Deloitte

Daniel Preston
Vice President Finances,
Labatt Breweries of Canada

Sandip Sahota
Managing Director, Data Management Operations and Technology,
Canada Pension Plan (CPP) Investment Board

Parinaz Sobhani
Director, Machine Learning,
Georgian Partners

Palash Thakur
Senior Director, Enterprise Tools-BI/Analytics Enablement, CIBC
Innovations and Analytics

Mary Turner
previous President and CEO,
Canadian Tire Bank
Canadian Tire Corporation Ltd

Rogan Vleming
Senior Director,
Decision Sciences,
Scotiabank

Alexis Zamkow
Digital Strategy and Innovation,
IBM

Course Descriptions

REMINDER



1. Not all courses listed are offered every term. For full course details, visit the [Schulich Course Offerings database](#).
2. If you are uncertain about the course content or whether or not a course fits your academic goals, please speak with your academic advisor.
3. Out-of-faculty courses are subject to approval by the program director.

ACTG 5210 1.50 Management Accounting

An introduction to management accounting techniques that are useful in management decision-making situations such as cost management, pricing special orders, determining service levels and performance appraisal. The non-applicability of external reporting figures for most management decisions is reviewed.

ACTG 6350 1.50 Advanced Cost and Management Accounting

This course develops problem-solving skills for internal accounting applications. Topics covered include product mix decisions, managing scarce resources, product costing and pricing, budgeting, and international transfer pricing.

Prerequisite: SB/ACTG 5210 1.50

ECON 6210 3.00 Economic Forecasting and Analysis

An increasing number of organizations make explicit forecasts of the economic environment within which they will be operating as a basis for forward-looking plans. This course studies the main forecasting methods in relation to the length of the forecasting time horizon. Several systematic appraisals of past forecasts are reviewed.

FINE 6310 3.00 Econometrics of Financial Markets

This empirical methods course focuses on the statistical techniques that are most often used in the analysis of financial markets. The list of topics include: statistical properties of asset returns, tests of asset pricing models, efficient market hypothesis, event study methodology, simulation methods, panel data analysis, and volatility estimation such as GARCH, value-at-risk, and time-varying correlations.

FNSV 6700 3.00

Management of Risk in Financial Institutions

Risk is the fundamental element that influences the behaviour of financial institutions. FNSV 6700 provides a comprehensive introduction to risk management. Presented within the framework of financial institutions, the course covers the design and operation of a risk-management system, modeling and the interplay between internal oversight and external regulation. The theory of risk management (market, credit and operational risk) comes alive through practical case evaluation and presentations from the senior executives in the risk management field. The course provides the essential analytical foundations of risk management in a way appropriate for those who do not have a mathematical background.

FNSV 6990 1.50

Enterprise Risk Management and Strategy

Strategy and risk management are two sides of value creation for companies. Strategic choice must identify how these choices affect a broad array of stakeholders. A firm must be organized to recognize, measure, monitor, and disclose risks if it is to implement its strategy. This course will focus upon the strategic importance of risk management rather than more technical aspects.

MGMT 6700 3.00

Project Management

This course covers the strategic, organizational and operational aspects of managing projects. Students learn to manage the technical, behavioural, political and cultural aspects of temporary groups performing unique tasks. Topics covered include: defining deliverables, formulating project strategy, effective group organization and management, dynamically allocating resources, managing without authority, and resolving conflict. Traditional cost and time management techniques are covered using contemporary software packages.

MKTG 6050 3.00

Marketing Research

This course develops students' understanding of basic and advanced market research methods. Students learn to evaluate completed research projects and conduct research studies, developing proficiency in defining research questions, developing research designs, selecting appropriate samples, conducting analysis and writing actionable management reports. Also examined are mobile research, brand maps, social media monitoring/metrics, Big Data, consumer surveillance and data privacy issues.

MKTG 6150 3.00 Consumer Behaviour

This course assists students in developing a thorough understanding of both organizational buyers and end consumers. The psychological, sociological, organizational and environmental factors that shape buyer behaviour are reviewed. Throughout the course, the implications for both marketing strategies and tactics are addressed.

MKTG 6250 3.00 Business Marketing

The course explores the management of inter-firm relationships in a supply chain context, encompassing both supplier-manufacturer relationships, and the relationships between manufacturers and channel intermediaries. Students learn to see these relationships as strategic combinations of market competition, power, and trust. Topics include firm buying behaviour, the design of distribution channels, strategic implications of forward and backward vertical integration, various technology applications in SCM, and franchising.

MKTG 6300 3.00 Service Marketing

This course examines the need for marketing in service industries, develops an understanding of the ways in which service marketing differs from product marketing, and improves students' understanding of how service characteristics affect the marketing function. Students learn to develop and implement marketing plans for service organizations.

MKTG 6360 3.00 Marketing Metrics

This course focuses on developing the analytical skills required to successfully apply the principles of quantitative analysis to the marketing discipline. Students will learn the most common measurement methods currently being used in the marketing field.

MBAN 5110 3.00 Predictive Modeling I

This course provides the tools needed to build models from data sets, validate models, and make predictions. The course emphasizes the SAS environment. Major areas for discussion include analysis of variance, regression, categorical data analysis, and predictive modelling. The course emphasizes both theory and practice, allowing students to use statistical theory for purposes of business case analysis.

Corequisite: MBAN 5120 1.50

MBAN 5120 3.00 Data Management & Programming

The Data Management and Programming course examines advanced techniques for manipulating data. The course emphasizes the SAS environment. Major areas for discussion include controlling input and output, summarizing data, data transformations, and debugging.

Co-requisite: MBAN 5110 3.00

MBAN 5140 3.00 Visual Analytics and Modelling

This course is an introduction to the fundamental theories of visual communication design applied in data visualization and visual analytics. Students become familiar with data-driven decision making workflows and storytelling best practices. Major areas for discussion include visual design principals, data structures, taxonomy of data visualization models and weekly technical tutorials using the Tableau software.

MBAN 5210 3.00 Predictive Modelling II

This course provides advanced tools needed to build models from data sets, validate models, and make predictions. The course emphasizes the SAS environment. Major areas for discussion include analysis of variance, regression, decision trees, and predictive modelling. The course emphasizes both theory and practice, allowing students to use statistical theory for purposes of business case analysis.

Prerequisite: MBAN 5120 3.00

MBAN 5330 3.00 Big Data Fundamentals and Applications

This course establishes a foundation for data science in the business domain. Through in-class lecturing and hands-on projects, students learn fundamentals of data, data management and data-centric programming. The classes cover up-to-date applications in data science, such as Python, SQL and Hadoop.

MBAN 6090 6.00 Analytics Consulting Project

The Analytics Consulting Project is the capstone integrative course of the MBAN program. It will allow students to deepen their understanding of the subject matter and methodologies, as well as provide an opportunity for hands-on, problem-driven research and application. It is an intensive, 2-term project where groups of four MBAN students undertake a comprehensive analytics project of an organization ("client site") and provide business insights to enhance the site's future success. At the conclusion of the analytics consulting project, students submit and present their final work to a panel of at least two experts, including the course director, and also to the client site.

MBAN 6110 3.00 Data Science I

An introduction to data science techniques designed for students who will work with data scientists or invest in related ventures. The course introduces fundamental concepts and techniques for the analysis of data-centered business problems, the creation and evaluation of solutions, the data science strategies, the basic cycle of a data-mining project, and the integration into business strategies.

MBAN 6120 3.00 Data Science II

This course is designed for business students who will pursue a career in the related industries. The course first teaches students Unix command line and Python programming language, which constitute the uniform computing environment for the following topics: data visualization; predictive modelling; relational database and SQL; Web APIs; big data, Hadoop and MapReduce; and Stochastic Search and Optimization methods. Towards the end of the course, various business cases from data science are introduced; examples may include: (i) online recommender systems; and (ii) Online targeted display advertising. Through in-class labs, the course gives students hands-on experience of advanced data science techniques. Students are required to bring their own laptop to participate in these in-class labs.

Prerequisite: MBAN 6110 3.00

MBAN 6300 3.00 Case Analysis and Presentation Skills

This course is designed to give students the opportunity to practice and develop their analytical thinking and presentation skills. The key objective of the course is to train students to successfully participate in national and international case competitions. A secondary objective is to prepare students to successfully interview for management consulting positions. Second-year MBA students who enjoy analyzing cases and delivering presentations are encouraged to take the course.

Prerequisites: MBAN 5110 3.00 and MBAN 5120 3.00

MBAN 6400 3.00 Multivariate Methods for
Business Analytics

Provides a critical overview of the issues and methods involved in conducting empirical Operations Management (OM) research. This is a required course for doctoral students majoring Operations Management.

MBAN 6500 3.00 Artificial Intelligence in Business I

Students are introduced to the field of artificial intelligence, with a focus on business applications and a historical perspective that covers the basic terminology and concepts. The course covers multiple facets of artificial intelligence including knowledge representation and symbolic reasoning; biologically inspired approaches to artificial intelligence; supervised, unsupervised, and reinforcement learning; multi-agent systems; planning; and natural language processing.

MBAN 6510 3.00 Artificial Intelligence in Business II

The emphasis in this course will be on automation and autonomous cyber-physical system applications of artificial intelligence. Students will delve deeper into topics which include: probabilistic reasoning & handling uncertainty; search; perception & sensing; human-computer interfacing; conversational systems; and autonomous robotics, drones, and autonomous vehicles.

Prerequisite: SB/MBAN 6500 3.00

OMIS 6000 3.00 Models and Applications in
Operational Research

This course provides a survey of selected topics in operational research (OR). Emphasis is placed on the practical application of OR tools rather than on the mathematical properties. Application areas include: financial planning and portfolio selection, production, priority planning and marketing. Topics include: linear programming and its applications; programming to achieve a set of goals or targets with applications in finance and production; capital budgeting and project selection; transportation and network models; and portfolio models.

OMIS 6350 3.00 Advanced Spreadsheet Modelling &
Programming for Business

This course enables the design, development, and implementation of integrated business analysis systems by combining the extended functionality of spreadsheets with the Visual Basic for Applications (VBA) programming language. The course demonstrates the power of combining the advanced analysis and modelling techniques of spreadsheets and VBA through applications to several practical problems from disparate business functions.

OMIS 6500 3.00

Global Operations and
Information Management

Plant location, supplier selection and product and process development are no longer solely national issues. Hence, the first part of this course, we give an overview of global operations, including global supply chain management, network design for global operations and global entry strategies. This deals with how the use of information technology supports the management of global operations. Topics include value chain management, the concept of marketpace, business-to-business e-commerce, enterprise resource planning, and the effect of IT on R&D and collaboration, all in an international context.

OMIS 6560 3.00

Supply Chain Management

This course is about how to make decisions that lead to the better design and management of supply chains. This often involves changing the network of relationships between suppliers and customers and other stakeholders as they design, contract, order, plan and coordinate goods and services together. This course covers essential quantitative supply chain management models, supportive information and e-commerce technologies, environmentally and socially responsible practices and customer-supplier relationship management.

OMIS 6955 3.00 Service Operations Management

This course is about designing and implementing service processes that respond effectively to customer requirements. Service processes involve high customer interaction, information intensive products and the requirement for real-time responsiveness to a wide variety of customer demands. Designing, implementing and maintaining these processes in a competitive environment requires service-oriented organizations to have a new level of competence. This course concentrates on the problems and opportunities found in large companies in rapidly changing industries such as financial services. Best practice and generic problems in service delivery can be found in many industries from manufacturing to retailing. Identifying effective strategies as well as specific techniques for process planning and control, and project implementation are important in the development of managerial competence in service operations.

ORGS 6350 3.00

Managing Change

As the environment of many business and non-profit organizations becomes increasingly complex and unstable, it is imperative that top managers be able to create a climate of flexibility and adaptability in their operations. Organizations must be able to undertake major change without destructive side effects to be truly successful. This course surveys the major methods available to the modern manager for effectively managing the process of change and creating a general climate in which needed changes are sought and welcomed throughout the organization. The course emphasizes case studies and the discussion of alternative change management models.

ORGS 6500 3.00

Interpersonal Managerial Skills

Research demonstrates that people and their ability to work effectively together are critical success factors for organizations. This course focuses on specific personal and interpersonal skills for organizational (and professional) effectiveness. With an emphasis on experiential exercises, the course helps students develop skills such as communication; time, conflict and stress management; performance management; gaining influence; and self-awareness (including emotional intelligence).

ORGS 6560 3.00

Negotiations

Provides students with insight into their own negotiation style and how to become a more effective negotiator. The course takes an experiential approach to exploring the concepts, theories, and psychology of negotiations. Students will gain knowledge of the different approaches to negotiations and the strategies and tactics unique to each. The course will provide students with opportunity to learn, practice, and refine negotiation skills as well as equip them with the skills necessary to negotiate constructive resolution to conflict in the workplace.

SGMT 6000 3.00

Strategic Management

This course examines business and corporate strategy. The focus is on strategic management, the process of choosing and defining purposes and objectives, formulating and implementing a viable strategy and monitoring strategic performance. It deals with the organization in its totality and demonstrates how and why the various functions of business are interdependent and need to be coordinated if the organization is to perform effectively. The course elaborates on the applicability of the strategic management discipline to a variety of sizes and types of organizations.

SGMT 6250 3.00 Strategy Execution

This course addresses the managerial challenge of executing a firm's strategy, by focusing on organizational elements that must be aligned to support a strategy as well as the tremendous difficulty of doing so. These elements include but are not limited to, organizational structures and control mechanisms that "match" the given strategy as well as strategic leadership. Students learn and apply theory regarding strategy execution by analyzing implementation and performance in specific firms.

Prerequisite: SB/SGMT 6000 3.00

SGMT 6700 3.00 Strategic Capability Development

We bridge and extend SGMT 6000 and ORGS 5100, drawing on contemporary theory and practice to further develop the skills and knowledge needed for translating strategy into action. Strategic successes and challenges are viewed as opportunities for building and strengthening long-run dynamic strategic capabilities. Emphasis is placed on experiential and applied approaches.

Corequisite: SGMT 6000 3.00

GS/PHIL 5340 3.00 Ethics and Societal
Implications of Artificial
Intelligence

This course is intended for students with professional interest in the social and ethical implications of AI. Topics include theoretical issues (could AI ever have moral rights?), practical issues (algorithmic bias, labour automation, data privacy), and professional issues (tech industry social responsibility).

Contact Us

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