

ONLINE MS IN BUSINESS ANALYTICS FOR MANAGERS

COURSE SCHEDULE



SIMON
BUSINESS SCHOOL
UNIVERSITY of ROCHESTER

TERM 1 FALL A

Probability and Descriptive Analytics

Data-Driven Decision Making

TERM 2 FALL B

Causal and Predictive Analytics

Data Management, Warehousing and Visualization

TERM 3 SPRING A

Marketing Management Analytics

Advanced Analytics-Driven Decisions

IMMERSION

TERM 4 SPRING B

Operations and Supply Chains Analytics

Technology Ethics and Policy Issues

TERM 5 SUMMER

AI & Business

Digital Business Strategy

TERM 6 FALL A/B

Online Business Analytics Capstone Project

Communication/Leadership Modules to integrate managerial skills with the technical content

Information is subject to change.

OMSBA FOR MANAGERS CALENDAR

YEAR ONE: 2022-2023

August 2022

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

September 2022

S	M	T	W	T	F	S
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October 2022

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November 2022

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December 2022

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January 2023

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February 2023

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March 2023

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April 2023

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May 2023

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28	29	30	31			

June 2023

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July 2023

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30	31					

YEAR TWO: 2023-2024

August 2023

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20	21	22	23	24	25	26
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September 2023

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October 2023

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15	16	17	18	19	20	21
22	23	24	25	26	27	28
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November 2023

S	M	T	W	T	F	S
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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

	Program Kick-off & Orientation*		Immersion*
	Fall A, Spring A, Summer Classes		Program Wrap-up & Celebration*
	Fall B, Spring B Classes		Holidays
	Finals weeks		

*Three in-person experiences designed to enrich your studies and deepen connections to your cohort.

Calendar subject to change.

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COURSE DESCRIPTIONS



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Probability and Descriptive Analytics

A key goal of Business Analytics is to generate insights from data to support business decision making. This course starts with an introduction to the basic techniques for data exploration and visualization. The emphasis is on understanding and reasoning with data, and clearly communicating the results to a managerial audience. The course will also introduce the fundamental concepts in probability and inferential statistics that are necessary for understanding model building and the use of data in decision making. Students will be introduced to R for statistical computing, and to Tableau for data visualization.

Data-Driven Decision-Making

The objectives of this course are to understand the analytics environment, including people and organizational challenges, data, and the role of models, and to understand concepts and apply frameworks of data-driven decision-making for business decisions. Learning to apply analytics design concepts for decision-oriented projects and pushing through systematized dashboards within the organization are key components of the course.

Causal and Predictive Analytics

This course introduces utilizing data and data analytics to inform decision-making in today's business environment. Extracting information from data has become an integral part of modern business management, from Main Street to Wall Street to Silicon Valley. This course will de-mystify statistical learning and data analytics, enabling students to thrive in a competitive market for data-based decision-making.

Data Management, Warehousing and Visualization

This course focuses on database design, management, and warehousing concepts to support analytics efforts. The course introduces SQL programming and related frameworks for data retrieval and transformation. Students will also learn Tableau to rapidly design and create data visualizations and dashboards, both for exploratory data analysis and effective communication.

Marketing Management Analytics

Marketing management is a complex business function that requires various skills for effective strategy formulation and marketing plan implementation. The key objectives of this course are (1) to provide you with a series of frameworks for identifying, analyzing, and solving marketing problems with an emphasis on analytic tools to achieve this aim, and (2) to enhance your ability to effectively communicate your analyses and solutions.

Advanced Analytics-Driven Decisions

Advanced Analytics-Driven Decisions covers the concepts and tools needed for the effective design of analytics using non-system data and experiments to solve business problems. In addition, the course extends the statistical and analytics tools developed in previous coursework in the use of predictive, causal, and prescriptive analytics techniques in managerial decision-making.

Operations and Supply Chain Analytics

In this course we study how analytics tools can be applied to modern operations problems. The emphasis will be on building and using performance evaluation, simulation, and optimization models to solve operations problems, and on communicating the results in a convincing manner, both in written reports and in oral presentations.

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Technology Ethics and Policy Issues

Tech firms—from start-ups to industry leaders—face a range of ethical and policy challenges. Start-ups may face barriers to entry or regulations ill-suited to their innovation. Industry leaders must consider antitrust considerations if they dominate a market. Tech firms of all sizes face ethical quandaries on issues such as artificial intelligence, to give just one example. The globalization of business adds to the complexity of these policy and ethical considerations. This course will equip you with the tools you need to consider the policy and ethical environments of tech firms and how they connect with firms' market environments. The tools you develop in the course will also be applicable to the analysis of other types of firms.

AI & Business

This class introduces students to AI models at the conceptual level and teaches how recent advances in AI can spur financial innovation for startups and corporations. The class relies on an analytical framework that combines financial frictions analysis and AI applications. Financial frictions provide opportunities for AI-driven FinTech solutions. The class covers the evolution of deep learning models in the last decade, discusses the cutting-edge AI applications, and helps students to identify new opportunities for value creation.

Digital Business Strategy

This course covers digital business strategy for both online and traditional firms. Topics include retail business models, business model innovation, and AI. We examine market entry, development, and monetization strategies for a number of different firms. Recent firms have included: Autodesk, Best Buy, Dropbox, Haven, IPSY, JoyRun, OpenTable, PayPal, Shoes of Prey, Salesforce, Tiktok, Wealthfront, and Zume. The culmination of the course is a team project in which students examine the digital strategy of a firm of their choosing.

Online Business Analytics Capstone Project

The Business Analytics Capstone project is an opportunity to bring all of the conceptual theories, analytical methodologies and technical skills from your coursework, as well as your creativity and intellectual enthusiasm, to bear on a real-world project that will directly impact your sponsor organization. There is the potential for students to develop a project proposal from their current job opportunities and use this as the subject for their capstone project.

Communication and Leadership for Business Analytics

This course has a singular goal: to cultivate the communication skills required for leadership in data-driven environments. The course contributes to your growth as a business professional, improving your ability to work with and influence others, and to succeed as a communicator throughout your career. The course will teach you to think about communication strategically and to use a set of tools for communicating persuasively in settings ranging from formal presentations to partnership building to leading teams.

Information is subject to change.