



Rotman School of Management
UNIVERSITY OF TORONTO

2023

Master of Management Analytics

Join the best

The Master of Management Analytics is a practical degree designed for quantitatively strong students who have recently completed their undergraduate studies.

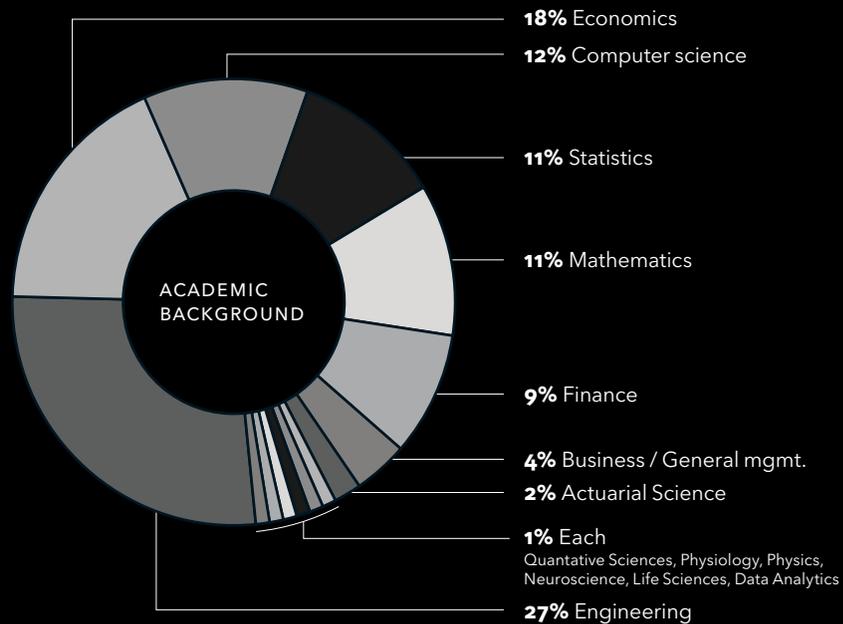
Class of 2022 profile

25 **46%**
Average Age
Female

3.6
Average Undergrad GPA
RANGE 21 - 33

710
Average GMAT*

54%
of class with work experience
AVERAGE 19 MONTHS



NATIONALITIES REPRESENTED

Canada
Bangladesh
Bhutan
China

India
Morocco
Nigeria

Pakistan
Russia
Singapore

Sudan
Taiwan
Uganda



Asia Wisco
MMA '21

Data Science Analyst,
Birch Hill Equity Partners

Vector Institute Scholarship
in AI recipient

Previous education:
Bachelor of Applied Science -
Major in Engineering Physics -
(Computing Specialization),
Queen's University

"The professors and staff are incredible, and it is clear how passionate they are about the MMA program. Their enthusiasm is infectious, and they have done an amazing job curating the perfect blend of theoretical and practical analytics."



*Not required for admission. Average based on scores from 20% of admitted class.

Rotman



Here's
where it
changes.



The field of management analytics is evolving at an extraordinary pace. If you are looking to make your mark in this exciting area, consider the Rotman Master of Management Analytics.



At once a theoretically rigorous and highly experiential degree, the MMA helps you gain the advanced skills required to shape future business decisions. In eleven months of intensive study, you learn the newest predictive tools in machine learning and artificial intelligence for the innovation and tech-driven economy.



University of Toronto ranks:

#1 University in Canada #18 of the Top Universities in the World

— Times Higher Education World University Rankings 2022

University of Toronto

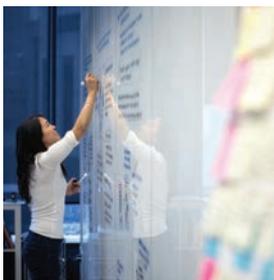
Enjoy a full-campus experience at the historic St. George campus of the University of Toronto. Established in 1827, U of T is a global centre of research and academic excellence, recognized worldwide as Canada's leading university – a reputation that adds tremendous value to your Rotman MMA degree.

Toronto: Centre of the action

The Rotman School is located in downtown Toronto, the second largest financial centre in North America and ranked one of the world's best start-up ecosystems. A recent study by McKinsey concluded that the Toronto-Waterloo Corridor, known as Tech North, is rapidly growing into the largest concentration of artificial intelligence, machine learning, fintech and quantum computing start-ups in the world. The School takes full advantage of its strategic location by drawing on a rich pool of business and industry leaders as teachers, mentors and speakers.



Why choose the Master of Management Analytics



← Take a Virtual Tour of the Rotman School

What is management analytics? It's a development of a precise understanding of the factors influencing managerial decisions, and a means of designing data and analytical solutions to support these decisions.

During the program, the Management Analytics Practicum provides an opportunity to gain in-depth experience in each of these stages through exposure to a real-life managerial problem.

A range of sophisticated skills are required to extract insights from real-world business data.

Over the course of the practicum and the program, you will learn to:

- Acquire a deep understanding of the managerial problem
- Identify the data sources and create analytical data sets
- Design, validate and implement analytical solutions
- Communicate your results effectively

6
In North America

13
In the World

TOP 3
INFORMS UPS
George D. Smith
Prize, 2022

QS World University Rankings:
Masters in Business Analytics Rankings 2022

Located in the heart of Canada's technology corridor, Rotman offers you wide-ranging opportunities to hone your expertise in AI and predictive analytics.

Practicum project

Gain real-world experience. Running through the duration of the program, the practicum is a key strength of the MMA. Working in teams, students are faced with a real business challenge, and must develop an analytical approach to solving it. Alongside counterparts in the sponsoring organization, students present a design for the analytical data set and model development to faculty and the project sponsor before executing and presenting the results. [Learn more →](#)

Towards the end of the program, Rotman hosts a combined showcase and networking event where students present their project outcomes to industry partners. The event is the culmination of the industry experience.

TD Management Data and Analytics Lab

Collect and analyze big data. The team of lab staff and data scientists in residence provide technical support and advice, while hosting regular events and competitions to give you additional perspectives on the world of data analytics. The lab provides online access to both private and public data sources needed for the MMA program. [Learn more →](#)

Industry connections

Meet experts in their field. Connect with senior practitioners through networking events and the practicum, and through interactions with the advisory board and our in-house data scientists. Learn about analytics in different industries to shape your future career opportunities.

Case competitions and datathons

Showcase your talent to top industry experts and impress potential employers. Each year, Rotman students participate in a range of competitions, applying their skills and knowledge to real-world challenges.

Events and speaker series

Learn from the best. Each year, Rotman hosts over 100 public talks by best-selling authors, analytics professionals and other thought leaders. The insights shared by these speakers have an extraordinary impact on students. [Learn more →](#)

Rotman clubs

Led and organized by Rotman students, the student clubs offer a rich calendar of social, cultural and career-related events and activities. Clubs provide a remarkable opportunity to meet and network with like-minded individuals from different programs. The Rotman Business Analytics Club is of particular interest to MMA students. [Learn more →](#)

Vector Institute recognition

The program is recognized by the Vector Institute as developing the skills and competencies demanded by the artificial intelligence industry in Canada.



"So much of analytics is looking at the data to uncover the story. This program is about defining your story, understanding where your skills and interests are leading you and figuring out how to best pursue those opportunities."

Artur Cortez Bellotti de Oliveira

MMA '20

Senior Consultant, Deloitte

Previous education:

Bachelor's degree,
Mechanical Engineering,
Pontifícia Universidade
Católica do Rio de Janeiro

Learn from the best

"The Rotman MMA program is unique in that it provides students with sophisticated technical skills as well as with a managerial and business toolkit. Mastery of AI tools and of coding languages like Python, R and SQL are among the core skills all our students are expected to develop. Moreover, our practicum provides our students with hands-on experience in applying these tools to real world problems at leading organizations."

Opher Baron
Distinguished Professor of Operations Management

Academic Director, MMA program
PHD, MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)



Thought leaders

Rotman is the largest Canadian business school and is ranked among the top twenty globally for management research. Our faculty have built a stellar reputation for their groundbreaking scholarship, teaching excellence and insights into a wide range of management issues.

Among our professors are seasoned professionals who tap into their real-world experience to guide students and bring classroom discussions to life. They give you access to the latest research before it filters into consulting firms and major corporations.

Data Scientists in Residence

A key connection between students and industry, the data scientists in residence provide a wealth of insight. They include:

Meghan Chayka

Co-Founder, Stathletes

Meghan is an entrepreneur and the co-founder of Stathletes, a sports analytics and insights business that provides industry-leading data precision within the sport of hockey.

Brian Keng

Research Director at Borealis AI

Brian leads the incubator and proof of concept stream at RBC's AI research lab to develop new and innovative solutions for the bank's business lines.

Arik Senderovich

TD-MDAL Fellow, Rotman School of Management;
Scientific Advisor, Mindzie

Arik provides research and data analytics insights to Mindzie on process optimization. His work focuses on congested service and manufacturing systems.

FACULTY TEACHING IN THE PROGRAM INCLUDE:

Gillian Hadfield

Professor, Strategic Management Area and Professor of Law
PHD, STANFORD UNIVERSITY

Joseph Milner

Professor of Operations Management and Statistics and Vice-Dean, MBA Programs

PHD, MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

Kanchana Padmanabhan

Director of Machine Learning Solutions at Kinaxis and External Instructor

PHD, NORTH CAROLINA STATE UNIVERSITY

Maria Rotundo

Professor of Organization Behaviour and HR Management

PHD, UNIVERSITY OF MINNESOTA

Mikhail (Mike) Simutin

Associate Professor of Finance

PHD, UNIVERSITY OF BRITISH COLUMBIA

David Soberman

Canadian National Chair in Strategic Marketing and Professor of Marketing

PHD, UNIVERSITY OF TORONTO

Gerhard Trippen

Associate Professor, Teaching Stream, OM and Statistics Area

PHD, THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

"Organizations that know how to analyze and leverage data effectively are going to have a competitive advantage."

Brian Keng

Transform your potential



The Master of Management Analytics Program is designed for talented individuals seeking a transformative learning experience. The program will challenge you to push your limits, expand your creativity and focus your critical thinking and decision-making skills to transform your leadership potential.



"The program offers a blend of technical expertise and opportunities to develop strong communications skills and gave me the chance to work on a real data problem."

Adam Resnick
MMA '20

Management Consultant,
Mayo Clinic

Previous education:
Bachelor of Science, Data Analytics, Drake University

100%

of MMA students were employed within 6 months of graduation (Class of 2021)

\$86,344

Average starting salary, with bonuses

Career Services

In a competitive job market, it takes focus, drive and leadership to take your career to the next level. We equip you with the skills and strategies you need to succeed through a suite of services designed for professionals in the field of analytics and in the broader finance industry.

Our Career Services team include a dedicated career consultant who will help you build a career management plan to achieve your professional goals through:

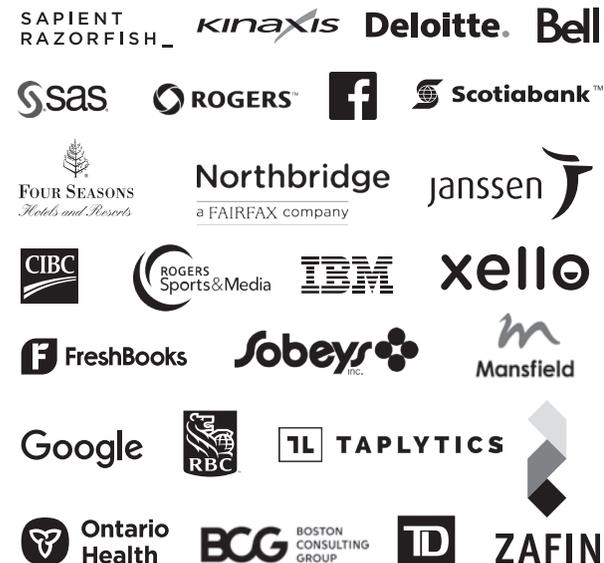
- One-on-one career coaching
- Exclusive employer networking opportunities throughout the year
- Industry-specific speaker events
- Professional skills workshops designed to set you up for success
- Technical interview and case interview preparation
- Mock interviews with industry professionals
- 24/7 online resources

[Learn more →](#)

Master of Management Analytics Advisory Board

The MMA program advisory board consists of senior professionals working in data and analytics across a range of sectors. For students the board provides a key link to the industry. Board members have frequent interactions with students, hosting coffee chats, discussing how analytics are used in their organization, and providing feedback on mock technical interviews.

A SELECTION OF ADVISORY BOARD MEMBER COMPANIES



"The program is packed with content exploring the intersection of business and data, and offers you an opportunity to use this knowledge to solve business problems in exciting ways."

Ifeyinwa Kofo-Alada
MMA '21

Previous education:
MA Economics,
University of Toronto

Your MMA journey



Master the skills required to succeed in the field of management analytics, with cutting-edge coursework that exposes you to the newest techniques in machine learning and artificial intelligence. Learn today how to tackle the business challenges of tomorrow.

Real-world results

The curriculum of the eleven-month MMA program is designed in partnership with industry in order to meet the changing requirements of this quickly-evolving industry. The full-time program starts in August, with one intake per year.

Software tools

A strong software toolkit is essential for an analytics professional. During the program you will use a range of platforms, including Python, R, SQL and Tableau.

Professional certification

As analytics matures as a job function, professional certification is becoming increasingly important. While it is not a program requirement, you will be supported to write professional certification exams offered by organizations such as SAS, Microsoft and Tableau.

Self-Development Lab

Sessions in small groups help you develop your communication, interactive and interpersonal skills. Learn to express yourself effectively, understand your own motivations and those of others, and achieve your goals in complex, high-stakes environments. [Learn more →](#)



"The program instilled the importance of developing a strong network. What's amazing about Rotman is that there are so many alumni who want to help you."

Denisa Bani
MMA '20

Data Scientist, Alpha Net at Facebook
Vector Institute Scholarship in AI recipient

Previous education:

Honours Bachelor of Science, Major in Physics, Minors in Mathematics and Immunology, University of Toronto

August

September

June

Management Analytics Practicum

September to June

The practicum provides an opportunity for student teams to engage with a real-world business problem.

The courses within the program, topics covered in the colloquium and various resources at Rotman will guide you in producing the best possible solutions to the managerial issues addressed in the practicum.

Working with your counterparts in the organization, you will:

- **Devise** an analytical approach to solving a managerial issue
- **Present** a design for the analytical data set and model development
- **Execute** and present the results



Introduction

August to September

Familiarize yourself with Rotman and gain an overview of the topics you will be covering during the program.

- Analytics in Management
- Data-based Management Decisions
- Bootcamps (Stats, JMP, Python, SQL, R)

Analytical Tools & Techniques

October to December

In this term, students learn about a wide range of analytic tools, from simple predictive models to complex statistical models of learning and simulation-based tools.

- Structuring and Visualizing Data for Analytics
- Modeling Tools for Predictive Analytics
- Big Data Analytics
- Tools for Probabilistic Models and Prescriptive Analytics



Colloquium

August to June

A series of mini-courses throughout the program exposes you to current trends and topics. The areas explored are reviewed annually to ensure the most important issues are covered. Certain topics such as ethics will be covered each year.

Note: Course order and timing for each academic session subject to change.

MMA Convocation takes place in November, following June deliverables.

Managerial Uses of Analytics

February to May

This term looks at the typical challenges organizations face, and how data can be used to solve them. It considers the types of data available in different sectors and departments, and how they can be applied to meet organizational objectives.

Students will study 1 core course, as well as 3 electives.

- Improving Customer Value with Analytics to Leveraging AI and Deep Learning Tools in Marketing (core)
- Electives
- Analytics for Marketing Strategy
- Analytics Insight Using Accounting and Financial Data
- Optimizing Supply Chain Management and Logistics
- Service Analytics for Management Analytics



Previous topics included:

- Ethical and Legal Issues in AI
- The Basics of API Usage and Design
- Cloud Computing and MLOps
- Healthcare Analytics
- Social Networks Representation
- Analytics for Fraud Detection and Money Laundering
- Understanding Customer Relationship Management (CRM)

Do you have what it takes?

Admission & next steps

Application criteria

- **Appropriate four-year undergraduate degree or equivalent**
Relevant program such as (but not limited to) Computer Science, Statistics, Mathematics, Engineering, Physical Science, Economics or Commerce. Minimum B average across courses in the final year. Most successful applicants will have a higher GPA.
- **Quantitative proficiency**
Evidence of proficiency in linear algebra, probability, statistics and calculus. Proficiency can be demonstrated through university level courses completed, with a minimum B grade in courses that cover the relevant topics.
- **Computational proficiency**
Evidence of proficiency in computer programming. Proficiency can be demonstrated through academic history, projects, work experience or extra-curricular activities
- **Two academic references**
- **Resume**
- **Online application**
- **Interviews by invitation only**
- **English language proficiency**
- **Standardized test results:**
Test results of GMAT or GRE (general test) are encouraged.

Application deadlines

First round: **November 8, 2022**
Second round: **January 25, 2023**

Financing and awards

Applicants are automatically considered for competitive entrance awards when meeting specific criteria outlined online. These awards include:

- **Merit Awards:** between \$5,000 to \$20,000
- **Vector Institute Scholarships in AI (VSAI):** Merit-based scholarships of approximately \$17,500 are awarded to select MMA students. VSAI fellows participate in a number of special programs and events.
- **Sandra Rotman Healthcare Scholarship:** One merit award of \$10,000
- **The Scotiabank Masters of Management Analytics Fellowship:** One merit award of \$10,000
- **TD-MDAL Scholarship:** Two merit awards of \$10,000

Students may apply to participating banks for an interest-subsidized professional student loan. Visit our funding webpages for full details.

Next steps

Meet our team. To meet one-on-one with our admissions team or if you have questions, we invite you to contact us.

Rotman School of Management
University of Toronto
105 St. George Street
Toronto, Ontario, Canada M5S 3E6

Tuition fees

Fees applicable to students entering the program in 2022:

Domestic students	International students
\$ 41,400	\$ 72,630

Please note that all fees and awards are set annually and are subject to change. Costs do not include university incidental fees or compulsory ancillary fees.

Tip: The earlier you apply, the greater your chance for an entrance award.

Our admission decisions are holistic: we are looking for unique people, not profiles. Although there is no model application, successful candidates share some qualities that help make them stand out.



Quantitative proficiency

- Have you taken Calculus, Linear Algebra, Statistics and Probability?
- Have you taken advanced level mathematic courses?



Computational proficiency

- What programming languages are you proficient in?
- How have you used programming in your studies, work or projects?



Communication skills

- Have you demonstrated this ability through the application process?
- Are you able to make a case as to why you are a good candidate for the program?



Passion for analytics

- Why do you want to study and have a future in analytics?
- What makes your application stand out from others?

Learn more: uoft.me/RotmanMMA

Web: www.rotman.utoronto.ca/MMA
Email: MMA@rotman.utoronto.ca

