

MATHEMATICAL ECONOMICS

CO-OP OR REGULAR

#1 in Canada for partnerships with employers

2 years paid co-op work experience

Learn to solve complex economic problems

Today we often express economics in terms of mathematical models, and most branches of economics use mathematical, statistical, and computational concepts extensively. We've also seen many advances in mathematics motivated by problems in economics. At Waterloo, you can get the best of both worlds in the Mathematical Economics program. It's offered jointly by the Faculty of Mathematics and the Department of Economics in the Faculty of Arts with an emphasis on economic theory. The program uses quantitative methods to understand and represent economic theories and to solve complex problems found in a wide range of economic systems.

GALEN'S FAVOURITE COURSES

- › **ECON 290 Models of Choice in Competitive Markets:** This course focuses on economic choices made by consumers and firms, and leans on the constrained maximization techniques.
- › **ECON 391 Equilibrium in Market Economies:** You learn about equilibrium for a market economy in terms of model logic and desirability of the equilibrium outcomes.
- › **ECON 393 Market Failures:** Explore the competitive markets model and the consequences of market failure on consumers and firms.
- › **STAT 331 Applied Linear Models:** This course involves modelling the relationship between a response variable and explanatory variables via regression models.
- › **STAT 443 Forecasting:** You learn fundamental forecasting skills like model building, multiple regression and forecasting, and exponential smoothing.

96.6% of grads are employed within 2 years

GALEN

DOUBLE MAJOR IN
MATHEMATICAL ECONOMICS
AND STATISTICS, CO-OP

WHAT SURPRISES YOU ABOUT WATERLOO?

How fast the time flies by. I thought a co-op degree would take forever because the work terms stretch 4 academic years into 5. But the 5 years have flown by. My advice is take time to really enjoy your classes. Your undergrad degree will be done before you know it.

uwaterloo.ca/future-students/programs/mathematical-economics



UNIVERSITY OF
WATERLOO



WATERLOO IS A GLOBAL LEADER IN CO-OPERATIVE EDUCATION



Galen has been a Math Orientation leader and she has participated in the Governor's Challenge through the Bank of Canada.

CO-OP STUDENTS AT WORK

Co-op bridges the gap between the classroom and the real world. Find opportunities to connect classroom theory with applications in a wide range of employment settings. During your co-op work terms, you will assume various job responsibilities, pick up new work-related skills, and earn competitive salaries.

TYPICAL CO-OP POSITIONS

- › Data Scientist, Manulife, **1 of Galen's co-op jobs**
- › Consumer Intelligence Business Analyst, LoyaltyOne Inc., Toronto
- › Economic Analyst, Health Canada, Ottawa
- › Intern, Manulife Financial, Waterloo
- › Enterprise Portfolio Management, Scotiabank, Toronto

STUDY AND CO-OP SEQUENCE 1*

YR.	TERM	REGULAR	SEQ. 1
1	Fall	Study	Study
	Winter	Study	Study
	Spring	Work	
2	Fall	Study	Study
	Winter	Study	Work
	Spring	Off	Study
3	Fall	Study	Work
	Winter	Study	Study
	Spring	Off	Work
4	Fall	Study	Study
	Winter	Study	Work
	Spring		Study
5	Fall		Work
	Winter		Study

* This study-work sequence is one of 4 choices of co-op sequences.

UNDERGRADUATE RESEARCH OPPORTUNITIES

If you're curious about the research that professors conduct, research opportunities are available for strong undergraduate students. You could be paid for a part-time opportunity, or a full-time position may substitute as a co-op term. It's not uncommon for students to publish their work.

You can find details about the application, deadlines, and examples of research conducted by previous undergraduates in the department and school websites. Successful applicants are then matched with a professor. You'd be well suited for a research position if you want to pursue a master's and/or doctoral degree after completing your undergraduate studies.

CUSTOMIZE YOUR DEGREE

About half of your courses will be economics courses and the other half math courses. You'll have the chance to understand economic behavior using statistics, differential equations, and mathematical optimization. You still have electives too – choose from 100 subject areas. You'll graduate ready for a career with banks, government, or industry, or for graduate school.

GRADS AT WORK

- › Compensation Data Analyst, Hay Group Limited, Toronto
- › Financial Analyst, OpenText, Waterloo
- › Vice-President, TD Securities (USA) Inc., New York
- › Reports & Analysis Manager, Hotels.com, Dallas
- › Technology Solutions Officer, TD Bank Group, Toronto
- › Campaign Analyst, The Loyalty, Inc., Toronto
- › Senior Financial Analyst, Workplace Safety and Insurance Board, Toronto
- › Analyst, Investment Banking, BMO Capital Markets, Toronto



@waterloo.math



@WaterlooMath



@waterloomath

FACULTY OF MATHEMATICS
MATHEMATICAL ECONOMICS PROGRAM DIRECTOR
SURYA BANERJEE, PHD

surya.banerjee@uwaterloo.ca