UNIVERSITY OF WATERLOO

Faculty of Arts

Arts – experience the Waterloo difference.

Economics

Undergraduate Degree Programs

General B.A., 3- or 4-Year, Economics
Honours B.A., Economics, Regular or Co-op
Honours B.A., Economics, Arts and Business, Regular or Co-op
Mathematical Economics, Regular or Co-op
Joint Honours with Economics
Minor in Economics

Economics studies show how wealth is created, managed and distributed. It helps us think of ways to improve our well-being, while recognizing our constraints and the corresponding trade offs. Economics attempts to investigate the cost and benefit of our choices. Every society has its own way of deciding how to allocate its scarce resources, including time and talents. Economic tools are commonly used to address the issues surrounding these decisions. For students interested in pursuing economics, a good mathematical foundation is strongly suggested. Following are some brief comments on select areas of research and course offerings in our Department of Economics.

Financial Economics: Financial Economics is concerned with understanding how financial instruments are priced in markets and how individuals and firms manage financial risk. Markets for financial instruments arise because some firms and individuals want to borrow while others want to save. A large corporation, for example, may borrow funds to purchase new plant and equipment by issuing further stock while an individual may save by purchasing stocks or government bonds. Markets for financial instruments also arise because firms and individuals want to manage financial risk. Understanding how the prices of financial instruments are determined in the market place is a central concern of financial economics, along with the design of new financial derivatives. Graduates with a **Finance Specialization** find employment in many areas of business and government.

Public Policy: Governments around the world tax prime-age workers to provide money and goods primarily for older and younger members of their societies. Changing demographics, in conjunction with other factors, have forced governments to reconsider virtually every public policy. Who will pay for health care for young and old, education for the young and public pensions for the old when baby boomers retire? Should some health care services be provided privately? Can public and private retirement incentives be altered to induce longer working lives? Should immigration policies be altered to select more prime-aged workers? Should education be publicly funded? Would greater emphasis on consumption as opposed to income taxation ease the burden on prime-aged workers? Would better day care services encourage greater labour supply from prime-aged males and females? The Economics courses in the **Public Policy Specialization** explore these and many other issues.

Health Economics: Over the last two decades health and health care have been paramount in the public policy debate in Canada. Our program in Health Economics offered by the Department of Economics introduces students to the role of economics in that debate. Courses explore the theories and models developed to study the health and health-care sectors from an economic viewpoint. The courses focus on the economic tools necessary to evaluate the efficiency of the market for, and the efficient allocation of scarce resources in, health and health care. Examples of possible topics to be covered are the determinants of health, the nature of the market, supply and demand of health care, asymmetries of information, externalities, principal-agent relationships, insurance and cost-benefit analysis, the role of the government in health care, and health care reform. At least three top researchers in

Courses in the Major
Business Finance
Computable General Equilibrium Modelling
Contemporary Canadian Problems
Cost-Benefit Analysis and Project Evaluation
Econometrics
Economic Development of Modern Europe
Economics of Energy and Natural Resources
Economics of Taxation
Environmental Economics
Health Economics
Industrial Organization
International Finance
International Trade
Introduction to Econometrics
Introduction to International Economics
Introduction to Macroeconomics
Introduction to Mathematical Economics
Introduction to Microeconomics
Labour Economics
Law and Economics
Macroeconomics Theory
Marketing: Principles of Marketing and Consumer Economics
Mathematical Economics
Microeconomic Theory
Monetary Economics
Public Economics: Expenditure
Public Economics: Taxation
Quantitative Finance
Statistics for Economists
The Principles of Entrepreneurship
Topics in Econometrics
Topics in Money and Finance

Co-operative Programs in Arts
Honours Economics students may pursue co-operative education in two ways:

1. **Arts and Business Co-op** - a direct entry program through which students complete their honours major and core Arts and Business courses in areas such as accounting, economics, languages, history, political science, business management, and leadership training. Five paid work terms alternate with academic terms on a four-month rotation. All students spend eight months on campus during their first year.

   There are four optional specializations available for Arts and Business Co-op students:
   - Digital Arts Communication
   - Global Engagement
   - Human Resources Management
   - International Trade

Health have joined our department recently, promising even more rigor and leadership in the studies of Health Economics.

Environment: Decisions made by individuals or firms – such as the individual decision about what type of car to buy or a firm's decision about which technologies to invest in – often result in the degradation of our environment. Why do people and firms make their choices in such ways that result in an undesirable outcome for society as a whole? Economics seeks to understand this question by looking at the incentives faced by people and firms in their economic activities. Another focus of economics is how to design regulations and other public policies so that individuals and firms will reduce the harmful consequences of their actions for others and for our environment. The Department of Economics joined forces with other disciplines to offer the **Environmental Economics Option**, which is open to all undergraduate students.

Macroeconomic Policy: The Canadian economy has experienced a period of rapid economic growth since the 1990s. This coupled with low inflation; low employment and record budget surpluses have made Canada one of the best performing economies among the G7 nations. Economic conditions in Canada have not always been this good. In the 1980s for example, the Canadian economy suffered from high inflation, high unemployment and record budget deficits. Growth was anaemic and standard of living was stagnant. Why do economies go through these business cycles and why do some economies grow at a faster rate than others. Macroeconomic courses provide students with the necessary background to understand these issues and to pursue opportunities in the financial and public policy world.

Monetary Economics: The study of money and its related issues in monetary economics is concerned with the conduct, effects, institutions, and history of monetary policy. For example, what are channels through which changes in monetary policy and other developments in the financial markets are transmitted to the economy? How are the decisions of the agents of the economy that are essential to the aggregate economy affected by shocks occurring in the monetary and financial system? The aim of monetary policy in Canada is to target the rate of inflation between one and three percent; but achieving that goal is very complex. Policy-makers often have to face many types of uncertainty that are beyond their control.

Trade: A recurring issue in popular press on globalization is whether trade liberalization will improve an economy's level of employment. Students taking courses in international trade will correctly argue that "*trade"* is not an employment policy. Trade is concerned with the question of efficiency, especially with various notions of comparative advantage, where trading partners will mutually benefit through exchange. International trade issues, including international trade institutions, fair trade and trade policies, are addressed in courses and research done by faculty members in the Department of Economics.

Innovation and Intellectual Property: In today's world innovation is the engine of economic growth. People enjoy the benefits of innovation both in the form of better products and in the form of a much longer expected lifetime. Economists study innovation in order to enhance our understanding of what is the value of innovation to society and what type of a reward system for innovation brings about the greatest improvement in living standards. For example, economists have recently examined how letting other companies challenge a company's patent application before the patent was granted will change the incentives to innovate. In recent years economists have also argued that the best way to induce pharmaceutical innovation aimed at diseases that mainly affect the developing world is by granting prizes for successful innovators. Another recently popular topic in the economic analysis of innovation has been evaluating the gains from pharmaceutical innovations against HIV/AIDS that have appropriated large revenues from selling the drugs; economists have shown that the gains to consumers have far outweighed the accrued producers' profits. In the Department of Economics, innovation, intellectual property and patent policy are on centre stage in research done by our faculty members and in some of our course offerings.

2. **Honours Arts - Departmental Co-op** – If you choose Economics as a major for second year, departmental co-op is available. Selection of candidates occurs in the fall of second year with four paid work terms alternating with academic terms on a four-month rotation. The first work term occurs during the spring term of the second year.

Careers

Here is a small sample of positions held by graduates who majored in Economics:

Account Executive, *Bank of Nova Scotia*
Assistant Manager, *Royal Bank of Canada*
Business Analyst, *CIBC*
City Solicitor, *City of Sault Ste Marie*
Executive Director of Finance, *Brisbin, Brook, Benton*
Finance Trainee, *Sears Canada*
Financial Planner, *IBM Canada*
Internal Auditor, *Ministry of Finance*
Investigator, *Revenue Canada*
Manager International Finance, *Northern Telecom*
Manager of Accounting, *Interforest Ltd.*
Manager of Marketing Research, *City TV*
Owner/Manager, *Music Pro Ltd.*
Payroll Supervisor, *Bell Canada*
Principal, *Halton Board of Education*
Programmer Analyst, *Manulife Financial*
Senior Accounts Manager, *Canada Trust*
Senior Analyst, *Ontario Hydro*
Senior Economist, *CIBC*
Senior Partner, *Merit Investment Corporation*
Senior Vice-President
Teacher, *Halton Board of Education*
Trader, *Gordon Capital Corporation*
V.P. Human Resources, *Canadian Tire Corporation*

For more information about Economics, please visit:

www.economics.uwaterloo.ca

For admission information, questions about your application, or to arrange a campus visit please contact:

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