Welcome
Department of Economics
March Open House 2020
DEPARTMENT OF ECONOMICS

Who We Are

Professor Chris Gunn  Undergraduate Advisor

Renee Lortie  Undergraduate Administrator
What is Economics?

Economists study a very wide range of topics, including:

- Growth and inequality
- Unemployment
- Business cycles
- Finance
- Behaviour of firms and consumers
- Healthcare
- Energy
- Environment
- Labour
- Technology
- Social structures such as family and marriage.

Is there anything that an Economist will not study???

*Economics is the social science that studies the choices that individuals, business and governments, and entire societies make as they cope with scarcity and the incentives that influence and reconcile these choices.*

- Parkin and Bade
Micro-economics

The study of economic agents and their actions:

1. Individuals
2. Households
3. Firms

Key Role of Incentives
Macro-economics

The study of the behaviour of a large collection of economic agents - i.e. the study of "the economy" as a whole.

Aggregate behaviour of consumers and firms
- Consumption, investment, savings, profits, labour supply and demand

Behaviour of government
- Expenditure and taxation, debt dynamics, effects of fiscal and monetary policy

Level of economic activity in individual countries
- Economic growth, inflation, unemployment

Economic interactions between countries
Economics as a Science

- Economics takes the "Science" part of Social Science very seriously
- Use scientific method in attempt to answer economic questions
  1. Formulate theory
  2. Test theory against data
  3. Refine or refute theory
- Complicated by the diverse array of questions and environments that we study
- One significant challenge: non-experimental nature of research environments
In experimental sciences such as chemistry, answering research questions can be more straightforward:
- “How does the presence of light affect this chemical reaction”?

**Ideal:**
- Apply treatment to some targets (treated), not to others (untreated), and hold everything else constant
- Or, if targets differ in some way, randomly assign treatments

Experimentation in economics can be very difficult, impractical, and unethical:
- “What is the impact of a change in government spending on the economy”?
- “Does additional education lead to higher wages”?
How does Economics Approach This?

To deal with this and other challenges, economics as a discipline has evolved a strong set of tools:

- Extensive use of Mathematical models as “laboratories”
- Development of Econometrics as outgrowth of statistics
- Development of Experimental Economics
Examples
Over Last 25 Years

Increased availability of data, refined econometric methods, and better computational power in 1990’s lead to Economics offering insight into social questions outside of traditional “Economics” domain (ie applied econometrics)

- Eg. “What is more dangerous, a gun or a swimming pool”? (Steven D. Levitt, Freakonomics)

Massive-scale global search engines (google) and data-tracking infrastructure lead to availability of huge amount of “revealing” data (ie “BIG Data“)

- Eg. “Do parents treat sons differently than daughters” (Seth Stephens-Davidowitz, Everybody Lies)
Examples over last 25 years (cont’d)

Need to understand recent Financial Crisis lead to tighter integration of finance and macroeconomics, renewed focus on behavioural economics

Continued development of experimental methods in economics, creation of experimental labs

Increased emphasis on economics of natural resources, energy and the environment in response to climate change threats
Skillsets of Modern Economists

Today the modern economist needs to be equipped with a broad range of skills:
- Mathematical modeling
- Computer programming
- Data management
- Statistical/econometric analysis
- Literary & communication

Many of these tools are also the domain of the traditional “STEM” fields
- Makes well-trained Economists attractive on job market in diverse fields,

Economics degree can also a strong foundation for less-quantitative fields that benefit from Economic knowledge
- Law
- International relations
- Journalism
What types of jobs can an Economics degree lead to?

Government
Bank of Canada, Statistics Canada, other Federal and Provincial agencies

Financial industry
Commercial banks, hedge funds, investment banks, insurance co’s

Economists in private sector and industry groups

Data analysts/scientists

Consultancies

Feeder to eventual jobs in accounting, business administration, law, international relations.
Career Paths

Pie chart showing the distribution of career paths:
- The Professions: 31%
- Media & Related IT Industries: 22%
- Resource, Mfg., Trades & Admin.: 9%
- Health & Social Support: 8%
- Government: 7%
- Education: 7%
- Financial, Ins., & Property: 4%
- Cust. Service, Arts & Entmt.: 12%

Total: 100%
Further Study

MA Economics
MBA
Masters in Public Administration/Public Policy
PhD
Our Undergraduate Program at Carleton

• Provides a firm-grounding in economic theory and knowledge and a broad base of modern tools

• Allows for flexibility to accommodate a wide variety of pathways and end-goals

• Location in Canada’s capital offers many links to government, both during and after graduation
  • Statistics Canada
  • Bank of Canada
  • Numerous Federal agencies

• New-generation IT sector in Ottawa, increasing data-reliance
Bachelor of Economics (B.Econ.) Degree:

1. Honors without Concentration
2. Honors with Concentration
3. Honors with Concentrations
4. Honors with a Double Major

Each pathway comprises 20.0 course credits

Co-op option available
# Bachelor of Economics (Honors)

6.5 core course credits (13 courses) – common to all pathways*

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<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Years 3 &amp; 4</th>
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<tr>
<td>• Introduction to Economics (Micro and Macro) (Econ 1001 &amp; 1002)</td>
<td>• Intro Stats for Econ (Econ 2210)</td>
<td>• Research Methods in Economics (Econ 3900)</td>
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<tr>
<td>• Elementary Math for Econ I (Econ 1401) / Math 1007</td>
<td>• Intro Econometrics (Econ 2220)</td>
<td>• Professional Practice of Economics (Econ 3920)</td>
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<tr>
<td>• Elementary Math for Econ II (Econ 1402) / Math 1107</td>
<td>• Intermediate Micro I &amp; II (Econ 2010 &amp; 2030)</td>
<td>• Honors Capstone Seminar (Econ 4905)</td>
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* With minor exceptions
Concentrations

1. Mathematics and Quantitative Economics
2. Computational Analysis
3. Economic Theory
4. Economic Data Science (**New this year!**)
5. Financial Economics
6. Development
7. International Political Economy
8. Natural Resources, Environment, and Economy
Concentration in Economic Data Science (4.0 credits)

2a. 1.5 credits in:
- COMP 1005 [0.5] Introduction to Computer Science I
- BUSI 2400 [0.5] Foundations of Information Systems
- ECON 2708 [0.5] Applied Data Analysis

2b. 2.0 credits in:
- ECON 4002 [0.5] Statistical Analysis in Economics
- ECON 4706 [0.5] Econometrics I
- ECON 4708 [0.5] Economic Data Science - Analytics
- ECON 4709 [0.5] Economic Data Science - Applications

2c. 0.5 credits in:
- ECON 4707 [0.5] Econometrics II
- ECON 4713 [0.5] Time-Series Econometrics
- ECON 4880 [0.5] Special Topics in Economics
- BUSI 4406 [0.5] Business Analytics
- BUSI 4408 [0.5] Social Analytics
• Bachelor of Economics
  Students may combine Economics with a second major from any of the Carleton B.A. programs. Popular choices include:
  • Political Science
  • Law
• Bachelor of Journalism
• Bachelor of Humanities
Admission Requirements

- Ontario Secondary School Diploma (or equivalent)
- Six 4U/M courses
  - Must include 4U English (or Anglais)
  - Must include 4U Advanced Functions
  - 4U Calculus and Vectors is highly recommended
Bachelor of Global and International Studies (BGInS)

- Multidisciplinary program that focuses on the global and international aspects of economics, law and politics
- Students choose a specialization upon admission (may change during program)
  - International Economic Policy
  - Global Development
If you are presently finishing your last year of high school, you must obtain your Personal Access Information (login information) from your guidance office before applying online through the Ontario Universities Application Centre (OUAC) at www.ouac.on.ca/101
I took Economics (or Math) in high school, do I really need to take it in first year?

What if I want to change my program after I’ve entered the B.Econ. program?
Thank You!