ECO101: Principles of Microeconomics
Introduction to the Economic Way of Thinking

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The syllabus
a.k.a. the course outline

- If it is in the syllabus, you are responsible for it
- Syllabus is available on the Portal (a.k.a. Blackboard)
  Not yet enrolled in this course?
    Syllabus and course slides posted at:

https://www.economics.utoronto.ca/gazzale/teaching/

textbooks & MobLab

textbooks

Krugman, Wells, Au & Parkinson; *Microeconomics* and
Macroeconomics (both Second Canadian Edition)

- Special price at UofT bookstore—includes MobLab access
- First Canadian Edition, US edition, other economics
  textbooks: may be acceptable substitutes for textbook,
  although probably do not include MobLab access.

online component

MobLab is **required**

- MobLab access is **included** with UofT-bookstore purchased
  textbooks
- Alternatively, purchase MobLab access for US$12 at
  https://www.moblab.com

Lectures

- Mondays, Wednesdays (some Fridays)
    - Next Friday, 15 September=Yes
    - other Fridays only with advance notice
    - each week's third hour=tutorial . . .

These overheads
a.k.a., slides, PowerPoints

- I annotate (write and draw on) overheads during lecture
- Unannotated overheads available on the Portal before lecture
- I will not make available annotated versions

My goals for you

1. Thinking like an economist
2. Understand some canonical models of modern economics and their implications
3. Apply these models to novel situations, understand their policy implications

My organizing principles

To learn economics

1. Keep up, with ideally an initial review of the readings **before** lecture
2. Do problems. Lots of them.

As an economist . . .

As an economist, I believe people respond to incentives . . .

Assessments

	Date	**Time**	**Weight**
Warm-Up Exercise	Beginning of semester.		1%
Tutorial Participation	(Almost) every week.		4%
Portal Quizzes	(Almost) every week.		9%
Term Test 1	Fri, 13-Oct-2017	7 – 9 PM	23%
Term Test 2	Fri, 24-Nov-2017	5 – 7 PM	23%
Final Examination	Dec. exam period	2 hours	40%

Term Tests
    Note time
Portal quizzes
    First one due 18-Sep; Drop your lowest mark.
Tutorials
    Start week of 18-Sep. Must register for MobLab beforehand.

Warm-Up Exercise

Purpose

To learn more about how to help promote academic and personal success.

Details

About 1 hour answering questions about personality traits or goals. Complete (in one sitting) by 22-Sept.

Where

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http://warmup.utoronto.ca
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Marks

1% of your final grade. You earn full marks for completing the session.

Portal quizzes

- Start by 10:45 AM on Mondays indicated in syllabus.
    - Quiz available preceding Thursday.
- One hour from time you start quiz.
- Access through Portal (a.k.a. Blackboard)
- Each quiz has approximately 10 questions, each with 4 variants
    - For each question, you receive one randomly determined variant
- In-person, small-group collaboration is permitted
- Drop your lowest of nine quiz scores.
    - Assume that your computer will crash in before quiz 9 . . .

Tutorials

- **Goals:** Review and discuss concepts from lecture, to take up problems, and to participate in in-tutorial exercises
- Tutorial Problems and Exercises posted on Portal
  - Please do not ask me or TAs for solutions
  - **Plenty** of solved problems and multiple choice questions with solutions on the Portal
- Each student signs up for one tutorial section
- Tutorials meet almost every week (see syllabus for schedule)
  - First meeting: week of 18-September
- Tutorial signup on Blackboard opens Mon, 11-Sep at 8PM
  - First come, first served!

MobLab

- Online platform for economic games, markets and surveys
- Must have MobLab access for each tutorial
  - Classroom response system
  - "Low stakes" writing: generally full marks for sincere response
  - Participate in games and markets: full marks for sincere participation
  - Lowest of 10 tutorial marks dropped
    - Complete MobLab survey by 10:30am on 19-Sept for $\frac{1}{4}$-mark bonus
- Occasional, announced, MobLab games or markets in lecture

The Value of Consistent Effort
quizzes and tutorials

Results from previous years

1. Quiz and tutorial marks higher than test and exam marks
2. Better quiz performance $\Rightarrow$ higher test and exam marks
3. More quizzes attempted $\Rightarrow$ higher test (and exam) marks
4. More tutorials attended $\Rightarrow$ higher test (and exam) marks

Term Tests

- Term tests: Fridays evenings
    - Academic conflict? We will announce procedure for alternate seating.
- Missed term test?
    - If approved by Prof. Gazzale, you will take a **cumulative** makeup test on Friday 1-Dec from 9 – 11 AM
    - If missed due to medial reason, approval only if licensed practitioner confirms you were **unable** to take test
    - Makeup test can only count towards **1** missed term test

Final Grades in ECO101Y

- Historically, average **final** grade across all sections of Economics 100/101/102 is C+
- The average **final** grade in each section will vary to reflect the relative performance of students in that section on the common part of the final examination (multiple choice questions worth 40% of final exam grade).
- Bottom line: students in a section where the average grade on a term test is low are NOT disadvantaged

# ECO101 Assistance
Gluskin = 150 St. George Street

Seek out help while not underestimating the value of struggle.

- Prof. G. office hours (Gluskin Room 330)
    - Wednesdays, 2:30 PM – 3:30 PM; Thursdays, 10:00 – 11:00 AM
    - Hint: If door open, **do not** wait outside until current student is finished.
- TA office hours
    1 Posted on the Portal
    2 A ton of extra office hours around tests & exams
- The Economics Study Centre (Gluskin 110)
    - Staffed by upper-year peer mentors
- Self-organized study groups
- Piazza

Moving forward

- Monday, 11-Sep Lecture. Read chapters 1 and 9 beforehand. Tutorial signup starts at 8PM.
- Wednesday, 13-Sep Lecture. Read chapters 2, 2a and first half of 8. Thursday: Portal Quiz 1 posted.
- Friday, 15-Sep Lecture. No new reading.
- Monday, 18-Sep Portal Quiz 1 available until 10:45am. Lecture. Read chapters 3 and 3a.
- Tuesday, 19-Sep Complete MobLab survey by 10:30am. Tutorials start.
- Wednesday, 21-Sep Lecture. No new reading. Thursday: Portal Quiz 2 posted.
- Monday, 25-Sep Portal Quiz 2 available until 10:45am. Lecture. Read chapters 6 and 6a.

P.S.

- Trust me, this course is more difficult than the High School economics course you took

A roundabout way towards defining economics

Observation 1: Scarcity implies trade-off

- **Scarcity**: when a resource is limited so that all demands for it cannot be satisfied

A thought experiment

- Think about the movie you would most like to see
- My hypothetical offer: I will arrange for you to see this movie **for free** at a really nice and really convenient movie theatre, tonight, 8 PM. (I'll even pay for the Uber. Both ways.)
    - **Tonight at 8PM is only option.**
- On the count of 3, raise your hand if you would **not** accept my offer.

Key concept I: opportunity cost
Scarcity implies trade-offs!

Opportunity cost
> Definition The value (often expressed in dollars) of the alternative foregone when using a resource
> Key Question What did I have to give up? (Sometimes called the *"next-best alternative."*)

Opportunity cost in the large
> Policy evaluation. E.g., increased spending on the environment
> - Key question: What would we have done with this money had we not spent it on the environment?
> - Opportunity cost = the value of this alternative use

Opportunity cost & the individual
> Example: The effect of *in vitro* fertilization on women's investment in advanced degrees

A Silly Question

- Assume you can purchase any album for $10
- You have $20 (and only $20) to spend at iTunes
- You are considering:
    - John Coltrane's *Giant Steps*, which you value at $14
    - Charlie Parker's *Yardbird Suite*, which you value at $16
    - Miles Davis' *Birth of the Cool* . . .
- **Silly Question:** You will purchase *Birth of the Cool* only if your value for it is at least how many dollars?

Key concept I: opportunity cost
Example I: *Birth of the Cool* for sale at $10

- What is the *opportunity cost* of acquiring *Birth of the Cool*?
- **Key Question:** What did you have to give up in order to acquire it?

Key concept I: opportunity cost
Example II: Movie: $16.00 plus 3 hours of your life

- Because you use the $16 to go to the movie, you have to give up $16 worth of other consumption (or savings).
    - You figure out the least painful way to reduce by $16 ...
    - Assume you buy 8 fewer $2 coffees.
    - Give me a dollar value (value to you, not price) of this foregone consumption/savings ...
- Because you use this 3 hours to go to the movie, you have to give up 3 hours of time spent on something else.
    - Assume you reduce time hanging out with friends by 3 hours
    - Give me a dollar value of this foregone opportunity ...

Positive vs. normative analysis
Assessing tradeoffs

Normative
prescribe (value judgement, "ought" or "should")

Positive
descriptive (theoretically verifiable; "is")

Economic models
What we are going to do in ECO101

- Simplify to make complex phenomena tractable
    - Translation: we have to leave out (a lot of) details
    - The big question: Does the model make accurate predictions?
        - If no, revisit assumptions. Did we leave out qualitatively important details?
- Qualitative vs. quantitative predictions
- Assumed quantitative skills for ECO101
    - Basic algebra, solving systems of equations
    - Graphing points and lines
    - Deriving and manipulating equations of lines
    - Calculating geometric areas
    - Review: Chapter 2 Appendix
- Returning to the whole assumption thing . . .

The behavioural assumption in economics
Cost-benefit principle

The behavioural rule (i.e., The Cost-Benefit Principle)

Given information, if the benefit of doing something is greater than (or equal to) the cost, do it.

Implications/Assumptions

- People maximize well being. Firms maximize profits.
- People (firms) are willing and able do this cost-benefit analysis
- Strong version of assumption: Self-interested behaviour . . .

The behavioural assumption and the consumer

Yes/No decision: Buy if Benefit $\geq$ (Opportunity) Cost

The behavioural assumption in action

Example: Movie: $16.00 plus 3 hours of your life

1. Assume "value" of movie (to you, in dollars) known with certainty (value=how much you enjoy the movie)

2. What is the minimum "movie value" at which you (rationally) go to the movie?

3. **ALL** of the following increase the cost of going to the movie, *and thus increase how much enjoyment you must get from the movie to make going rational*

   A) An increase in the ticket price.
   B) An increase in the value of what you would otherwise do with the $16.
   C) An increase in the value of what you would otherwise do with the 3 hours.

Thinking like an economist II
How many cups of coffee will "B" buy?

What you know:

- **If** only offered the opportunity to buy 2 cups of coffee, the most "B" is willing to pay for these 2 cups is \$5 ($WTP(2) = \$5$)
- In fact, "B" can purchase as many cups of coffee as she wants at \$2 per cup ($P = \$2$)

The question:

- **True, False or Uncertain:** If $P = \$2$, "B" purchase at least 2 cups of coffee.

Key concept II: thinking at the margin
A tale of 2 "B"s

Thinking like an economist II

How much $\longrightarrow$ thinking at the margin

Thinking at the margin

Consideration of the benefits/costs of doing marginally more
(e.g., one more) or marginally less (e.g., one less) of an activity

Behavioural rule, restated

Keep doing something as long as the marginal benefit (to me)
are at least as large as the marginal cost (to me)

the result

If marginal benefits are not increasing and **marginal** costs are
not decreasing, **then** following this behavioural rule maximizes
net benefit (total benefit minus total cost)

Thinking like an economist IIa

Thinking at the margin $\longrightarrow$ ignore **sunk** costs

- **Sunk costs** are costs which cannot be avoided regardless of any action taken
    - Costs already paid and non-refundable
    - Costs you are obligated to pay in the future

Key concept II: thinking at the margin
Summer 2013 Exam; **TFU** = True, False or Uncertain

Assume rationality as defined by an economist. You have already spent millions on a project. If you cancel the project, you incur no more costs and no benefits. If you continue, it costs you an additional \$50 million to finish the project. Once finished, you receive \$100 million with certainty. **TFU:** If you have already spent \$10 million, you should continue the project, but if you have already spent \$90 million, you should cancel the project.

Key concept III: people respond to incentives

The implication of our behavioural rule

- Will get more of an activity if
    - Increase its benefits
    - Decrease its (opportunity) costs
        - Decrease the explicit/direct cost
        - Decrease the benefit of next best alternative
        - Increase the explicit/direct cost of the next best alternative
    - Will get less of an activity if
        - …

Key concept III: people respond to incentives
Beware of the "Law of Unintended Consequences"

Texting while driving (TWD) = bad

- "Clearly": Make it illegal = ↑ costs ⟶ less TWD

2010 Study: U.S. Highway Loss Data Institute

- 3 out of 4 states: ↑ texting-related crashes after law introduction
- ↑ relative to states not passing law
- Potentially plausible explanation . . .

Putting it all together

Economics

the study of how "agents" make decisions on the allocation of scarce resources

- Microeconomics: the study of how individuals, households, and firms make decisions and interact in markets
- Macroeconomics: the study of economy-wide phenomena, including inflation, unemployment, and economic growth

Economic models

- our main tool
- starring Homo Economicus

An "Economic Naturalist"

How do we explain increased college enrolments in the midst of the worst economic downturn in the last 70+ years?

Hint:

Tuition has not been falling . . .