

## ECON 302 Educational Goals

### 1 Analyze and Interpret economic models

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#### 1A Solve and interpret standard models of consumer behavior

##### Introductory:

- Explain the concept of lotteries
- Identify situations involving uncertain outcomes as choice under uncertainty and use lotteries to describe them
- Use expected utility functions to describe preferences under uncertainty
- Define, calculate, and explain certainly equivalent and risk premium
- Define and explain the meaning of risk-averse, risk-neutral and risk-loving preferences
- Explain why risk-averse individuals buy insurance, and calculate the optimal level of insurance for different premia
- Draw analogy between consumer choice in product space (certainty model) and consumer choice in state space (uncertainty model)

##### Developing:

- Explain the role of preferences in consumer choices

#### 1C Solve and interpret standard models of market interaction

##### Introductory:

- Compute monopoly prices and output
- Link monopoly pricing with demand elasticity.
- Informally explain the concept and purpose of price discrimination
- Identify and differentiate price discrimination strategies (perfect, direct, indirect)
- Formulate, solve and interpret the Cournot and Bertrand models of oligopoly

##### Developing:

- Explain the role of prices in the economy
- Compute and interpret consumer surplus.
- Define oligopoly
- Define monopoly and state the different sources of monopoly.

#### 1D Identify and analyze market failures, externalities and public goods

##### Introductory:

- Compare market and optimal allocations under externalities, and identify policies to improve market allocations
- Explain the potential role of property rights in addressing externalities (Coase theorem), and identify limitations of this approach

- Identify public goods in analytic and real-world situations
- Calculate equilibrium and optimal amounts of public good in a simple model with voluntary contributions and identify policies to improve market allocation
- Describe and explain the free rider problem and the tragedy of the commons

#### Developing

- State the definition of Pareto efficiency
- Find Pareto efficient allocations
- Identify consumption and production externalities
- State the properties of public and private goods

### 1E Use game theory to analyze strategic interactions

#### Introductory:

- Identify elements of static and dynamic games of complete information, and distinguish between these classes of games
- State and apply definitions of basic game theoretic terms, such as actions and strategies, for both static and dynamic games of complete information
- Find the normal-form game associated with both static and dynamic strategic interactions with a finite number of actions
- Define the iterated elimination of (strictly) dominated strategies, Nash equilibrium and subgame-perfect equilibrium, and explain the motivation for these solution concepts
- Solve static games and normal-form games using the iterated elimination of dominated strategies and pure-strategy Nash equilibrium
- Give examples of games where a pure-strategy Nash equilibrium does not exist
- Solve for mixed-strategy Nash equilibria in simple normal-form games
- State the extensive-form game associated with sequential strategic interactions with a finite number of actions
- Solve for subgame-perfect equilibria in games of perfect information (using backward induction) and simple finitely and infinitely repeated games
- Give an example of the importance of commitment in sequential play
- Explain the difference in equilibrium sets of the finitely repeated and infinitely repeated prisoner's dilemma
- Define concepts of adverse selection, signaling and moral hazard
- State prominent examples of adverse selection, signaling and moral hazard, and identify these phenomena in analytic and real-world situations
- Solve for equilibrium prices in simple adverse selection models, and explain welfare implications
- Determine the necessary cost of signaling for the existence of a separating equilibrium in a simple signaling model
- Determine the necessary amount of monetary incentives to avoid moral hazard in a simple hidden action model

### **3 Critically assess economic arguments, assumptions, and evidence**

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#### 3B Critically evaluate assumptions in economic/econometric models

Introductory:

- Explain the role of assumptions in economic models

#### 3C Compare and critically evaluate economic arguments

Introductory

- Use a model to evaluate the validity of an economic argument  
Identify the key assumptions and empirical claims in an economic argument

### **4 Use oral, written, and graphical methods to communicate economic insights**

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#### 4A Formulate written economic arguments evaluating or supporting a position

Developing:

- Write a brief paragraph (e.g., on an exam) that explains or applies economic concepts

#### 4B Present economic arguments by means of graphs, charts and tables

Introductory:

- Use graphs to illustrate the welfare effects of monopoly and externalities

### **5 Use economic concepts to understand real-world human activity and public policy**

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#### 5A Apply economics to everyday situations

Developing:

- Analyze business decisions in a non-competitive environment (monopoly and oligopoly)
- Formally model the decision-making of participants in a real-world situation
- Describe the incentives facing participants in a real-world situation

#### 5B Use economics to evaluate specific policies

Developing:

- Analyze the welfare effects of specific policies

#### 5C Evaluate current events using tools of economics

Developing:

- Evaluate current events as they relate to the general course content

### **6 Describe and analyze important economic institutions, events, and results**

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6A Describe important institutions in the economy and their roles

- Describe the characteristics of a bank run and the potential role of the lender of last resort

6B Describe important events in economic history and their current relevance

- Describe important cross-country patterns in long-run growth
- Describe important patterns and events in Canada's main macroeconomic time series