

## **Faculty of Liberal Arts & Professional Studies**

### **Department of Economics**

**Course:** AP/ECON4010 M - Advanced Microeconomic Theory

**Term:** S2 2019

#### **Prerequisite / Co-requisite:**

Prerequisites: AP/ECON 2300 3.00, AP/ECON 2350 3.00, and AP/ECON 3530 3.00, or equivalents.

Recommended prior completion: AP/ECON 2400 3.00 and AP/ECON 2450 3.00.

**Course Instructor:** Professor Elie Appelbaum

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**Office Hours:** TR 3:00 – 4:00, by appointment.

**TA:** TBA

**Time and Location:** TR 4:00 - 7:00, VH 3009

#### **Expanded Course Description**

The course involves formal lectures by the professor.

#### **Course Learning Objectives**

(1) The purpose of this course is to introduce students to most of the important topics in modern microeconomic theory, at an advanced and rigorous level. These topics include: general methodology of science, consumer behaviour, the theory of the firm, static and dynamic models of perfect and imperfect competition, general equilibrium, social welfare functions and the Arrow's Impossibility Theorem, expected and non-expected utility, risk aversion, portfolio choice, production under uncertainty,

models of imperfect information, including moral hazard, adverse selection and signalling.

**(2)** In addition to gaining a good understanding of these topics, students will be able to apply the concepts, models and tools developed in this course to a wide range of issues in other areas of economics, as well as finance, public policy and various other areas of social science.

The course is also a good preparation for students who are interested in pursuing graduate work in economics, or finance.

### **Course Text / Readings**

**Textbook: Advanced Microeconomic Theory**, Geoffrey A. Jehle and Philip J. Reny (JR) 3<sup>rd</sup> edition.

Other Useful (but not required) Books:

Microeconomics Analysis Hal R. Varian (third edition)

Microeconomics Theory, Mas-Collel, Whinston and Green (MWG).

The Theory of Industrial Organization, J. Tirole

Note: All topics are covered in the lecture notes.

### **Topics:**

1. Introduction and Methodology (lecture notes)
2. The Theory of Consumer Behaviour: Preferences, Expenditure, Indirect Utility Functions, Duality, Welfare Comparisons, Price Indices (JR 1, 2, 4.3, MWG: 1-4, Varian: 7-10).
3. The Theory of the Firm: Technology, Cost and Profit Functions, Duality, Aggregation, Productivity, Empirical Applications (JR 3, Varian 1-6, 12).
4. Choice under Uncertainty: Expected and Non-Expected Utility, Risk Aversion, Portfolio Choice, Production under Uncertainty, Value of Information (JR 2.4, MWG 6, Varian 11).

5. Non-Competitive Markets: Perfect Competition, Imperfect Competition (static and dynamic), (JR 4, Varian 16).

6. General Equilibrium: General Competitive Equilibrium – Definition, Existence, Properties, First and Second Fundamental Theorems of Welfare Economics (JR 5, MWG 15-16).

7. Social Choice and Welfare: Pareto Optimality, Second Best Problem, Compensation Principle, Social Welfare Functions, Arrow's Impossibility Theorem, Examples of Welfare Functions (JR 6, MWG 21).

8. Bargaining

9. Imperfect Information: Principal Agent Problems (Moral Hazard and Adverse Selection), Signalling, Market for Lemons (JR 8, Tirole, I.2.3).

### **Evaluation**

The final grade for the course will be based on the following items weighted as indicated:

Midterm Test (on July 4, 2019) - 25%.

If you miss the midterm for medical reasons (proof must be provided), you will be tested on this material on a later date.

Final Exam: (TBA) - 75%.