Course: GS/ECON5010 A - Applied Microeconomics (Fall 2023-2024)

Course Instructor: Professor Elie Appelbaum
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Technical requirements for taking the course

• You will need a stable, higher-speed Internet connection, a computer with a webcam and microphone, or a smart device with these features.
• You will need to be able to use eClass (see the guide link below).
• You will, therefore, need to be able to use Zoom (see the guide link below).

Useful links for student computing information, resources and help

• Student Guide to eClass
• Zoom@YorkU Best Practices
• Zoom@YorkU User Reference Guide
• Computing for Students Website
• Student Guide to eLearning at York University

• You can determine your internet connection speed at Speedtest or Fast.

Organization of the course

• ECON 5010 (fall semester) is an "ONCA" course.
• It will be taught Online synchronously.
• Lectures will be held online, and there will be no in-person interactions or activities on campus **except for the final exam, which will be held on campus**.
• Detailed lecture notes will be posted (on eClass) for each topic. They will include general discussions of the issues, mathematical derivations/presentations, diagrammatic examples/ explanations, and intuitive explanations.
• I will also post questions on each topic (see below).
• Everything about the topics to be discussed is covered in the lecture notes.
• The lecture notes will be discussed/presented in scheduled Zoom sessions, which will take place during the scheduled meeting times of this course – Tuesdays, 8:30-11:30.
• They will consist of 30-minute segments, as needed.
• During these Zoom sessions, I will also answer any questions about the lectures/lecture notes, posted questions, or topics in general.
• It is highly recommended that you attend these Zoom sessions.
• The link to these Zoom sessions is provided below.
• Your full name must be visible to be admitted into the Zoom sessions.
• I will not record/post these Zoom sessions. Neither should you record them.
• The first Zoom session will be held on September 12 at 8:30 AM. A general outline/summary/ mathematical review/introduction will be provided.
• Students should carefully go through the lecture notes **before** the Zoom sessions.
• **Posted Questions:** Various questions on each topic will be posted. These questions should be viewed as a tool pointing out and highlighting examples of issues you should review and ensure you understand. See Posted Questions and Exams on eClass for more. Students should go through these problems and attempt to solve/answer each set of questions.

• Exams will be based on the material presented in the lectures. For more, see Posted Questions and Exams.

- **<u>Virtual Office Hours</u>:**

Tuesdays 12:30-1:30 via Zoom. Appointments need to be booked on eClass Scheduler.

1. If you have questions about the lecture notes or the posted questions, you can raise them during the Zoom sessions. Alternatively, you can book an appointment on the eClass Scheduler.

2. For administrative questions, you can reach me by e-mail. I will answer such e-mails on Tuesdays and Thursdays.

<u>Zoom links</u>

- **Please copy all Zoom links from this eClass page. If there are eClass access problems (a likely scenario), use the copied links to join the Zoom sessions.**

<u>TA: TBA</u>

<u>Expanded Course Description and Course Learning Objectives</u>

(1) This course aims to introduce students to the important topics in modern microeconomic theory at an advanced and rigorous level.

(2) These topics include (depending on time constraints): general methodology of science, consumer behaviour, the theory of the firm, static and dynamic models of imperfect competition, general equilibrium, social welfare functions and Arrow's Impossibility Theorem, expected and non-expected utility, risk aversion, portfolio choice, production under uncertainty, bargaining, models of imperfect information, including moral hazard, adverse selection, and signalling. **All topics are covered in the posted lecture notes.**

(3) In addition to gaining a good understanding of these topics, students can apply the concepts, models, and tools developed in this course to a wide range of issues in other areas of economics, finance, public policy, and various other social sciences.

<u>Course Text/Readings</u>

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

Other Useful (but not required) Books:
Microeconomics Analysis Hal R. Varian (third edition)
Essential Microeconomics, J.R., Riley
The Theory of Industrial Organization, J. Tirole
Bargaining Theory with Applications, A. Muthoo (AM).

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, 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) Dynamic Problems: Review of Optimal Control, The Firm's Investment Problem.

(5) Choice under Uncertainty: Expected and Non-Expected Utility, Risk Aversion, Portfolio Choice, Production under Uncertainty, Value of Information (JR 2.4, Varian 11, Riley).

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

(7) Bargaining (Muthoo).

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

(9) The Firm as a Contract: (Tirole, 15-34).

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

(11) General Equilibrium (if time permits): General Competitive Equilibrium – Definition, Existence, Properties, First and Second Fundamental Theorems of Welfare Economics (JR 5, Riley).

Evaluation

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

Midterm Test: (October 24, 2023, 8:30-10:00 PM) - 25%.
Final Exam: (TBA) - 75%).

Note:
There will not be a deferred midterm exam. Students who miss the midterm will have the weight of the midterm shifted to the final, but only if they (i) regularly attended classes, (ii) have a valid reason (e.g., medical) and contact me within 24 hours.

<u>Exam Coverage:</u>

(i) The midterm will cover Consumer Theory, The Theory of the Firm, but NOT The Firm's Dynamic Problem. It will not cover the Introduction section. It will only cover material discussed in class (and is also in the lecture notes).
(ii)The final exam will cover all the rest of the lecture notes material discussed in class. However, it will not cover the material covered in the midterm.
(iii) The two exams will not cover material in the Appendices (unless specifically discussed in class).

<u>IMPORTANT INFORMATION FOR STUDENTS</u>

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Academic Standards, Curriculum & Pedagogy webpage (see Reports, Initiatives, Documents)
- https://secretariat.info.yorku.ca/files/CourseInformationForStudentsAugust2012-.pdf

• Senate Policy on Academic Honesty and the Academic Integrity Website
• Ethics Review Process for research involving human participants
• Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities
• Student Conduct Standards
• Religious Observance Accommodation