

# ECON 5012 - Microeconomic Analysis and Applications

Fall 2023

Thursday 12:30 – 3:15PM Wu Ho Man Yuen 403

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Office hours:	Wednesday 4 – 5PM	UCA 306
Tutorials:	TBA	

**Course Description:** Advanced microeconomic theory is one of the most important courses in the graduate economics curriculum. It is the basis for any other more advanced courses in economics – both micro and macro.

You will learn the foundational tools of microeconomic theory, which means being able to define, recognize, illustrate and interpret microeconomic concepts mathematically and conceptually. We will demonstrate the usefulness of these analytical tools through relevant examples and readings on serious applied research topics. You will develop the ability to creatively apply these analytical tools to collective and individual questions.

Prerequisites include intermediate-level microeconomics, calculus, and linear algebra.

**Readings:** For the textbook, we will be using **Microeconomic Analysis**, by **Hal Varian**, 3<sup>rd</sup> edition. It is also acceptable if students use other versions of the textbook. However, it is your responsibility to keep the materials and problem sets updated.

A novelty of this course is that we will also read selected **applied economic research papers** (“**AERPs**”) throughout the semester to enhance our understanding of how knowledge in microeconomics can be applied to investigating important questions in real life. The reading list will be announced later.

Further readings:

Varian, Hal (2014). *Intermediate Microeconomics*, 9<sup>th</sup> edition, Norton;

Kreps, David (1990). *A Course in Microeconomic Theory*, Princeton U. Press.

**Method of Evaluation:** Participation (5%), Group Homework (10%), Quizzes (10%), Midterm (30%), Final (45%).

**Participation:** Participation will be graded based on attendance and contribution to the class. Lecture attendance is mandatory. However, I do not take attendance. You may want to notify me in advance or give me a note afterward for any medical emergency, religious

holiday, field trip and athletic contest, which are the only valid excuses for an absence from quiz and examination.

Communication is highly valued in this class. I encourage you to ask questions and express your thoughts during lectures and tutorials. *There is no such thing as a stupid question.* When necessary, I will randomly choose a name to answer my question and/or to speak up. One can lose one participation point if she/he is absent without a valid excuse or refuses to speak.

In addition, courtesy is expected in the classroom. In particular, you should refrain from chit-chatting, making loud noises, or playing with electronic devices during lectures.

**Tutorials:** Tutorials are an integral part of the course, and students are expected to show up. We will use them to expand on ideas presented in the text and in the lectures, discuss homework problems and quizzes, and provide an opportunity for you to ask questions about anything you would like to clarify.

We will hold 5-6 tutorials throughout the semester. The exact dates are TBD.

**Examination:** The midterm exam is scheduled to be held during the week of October 16-20. Details about the final examination are **TBA**. The final exam is NOT cumulative. However, due to the nature of the knowledge learned in this class, for the final exam, you are expected to know basic concepts and skills learned before the midterm.

**Group Homework:** We will have 5 homework assignments, usually one for every two weeks. Each homework accounts for 2% of your course grade. The main purpose of these problems is to help you learn the material. So, each homework consists of 4 to 7 problems that will be graded (and that you need to submit) and many other suggested problems that you should do for practice.

You should turn in each assignment in group of 4 students. Group formation will be done before the second week of class. Late assignments will not be accepted.

**Quizzes:** We will have 5 in-class quizzes (usually one for every other week). Quizzes are to check if you are doing the assigned reading and learning the material presented in class. *As I will drop your lowest quiz score*, each quiz accounts for 2.5% of your course grade.

**Extra Credits:** There will be extra-credit opportunities throughout the semester. I will only make those announcements during lectures.

**Students with Special Needs:** If you have a documented disability and need special accommodations, please do not hesitate to contact me.

**Academic Honesty:** Attention is drawn to University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations. Details may be found at <http://www.cuhk.edu.hk/policy/academichonesty/>.

## Tentative Class Schedule

Week	Date	Topics	Textbook Chapter	Note
1	Sept. 7	Introduction & Overview		
2	Sept. 14	Production & Technology Profit Maximization	Chs. 1 - 2	
3	Sept. 21	Comparative Statics Cost Minimization	Chs. 2 - 3	
4	Sept. 28	Cost Functions Shephard's Lemma	Chs. 3 - 5	HW 1 Tutorial 1
5	Oct. 5	Preference & Choice <i>AERP</i>	Chs. 7 - 8	
6	Oct. 12	Revealed Preference Labor Supply	Ch. 8 Ch. 9. 1	HW 2 Tutorial 2
7	Oct. 16 - 20	<b>Midterm exam</b>		
8	Oct. 26	Consumer Welfare	Ch. 10	
9	Nov. 2	Welfare Economics General Equilibrium	Ch. 13 Ch. 17	
10	Nov. 9	<b>(Class canceled)</b>		HW 3 Tutorial 3
11	Nov. 16	Monopoly <i>AERP</i>	Ch. 14	
12	Nov. 23	Game Theory Strategic Behavior	Ch. 15 Ch. 16	HW 4 Tutorial 4
13	Nov. 30	Oligopoly Theory <i>AERP</i>	Ch. 16	HW 5
14	<b>TBA</b>	<b>Final Exam</b>		Tutorial 5