

Department of Economics, HKUST ECON 3113 Microeconomic Theory I Course Outline

Instructor

Au, Pak Hung

Office: LSK 6069

Office hours: Thursdays 4:00 - 5:30 p.m. (Zoom meeting code: 225-338-8641)

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Course Webpage: <https://canvas.ust.hk>

Lecture time: Mondays 3:00-4:20 p.m. & Fridays 10:30-11:50 a.m.

Lecture venue: Room 1011, LSK Building (Zoom until further notice. Passcode: econ3113)

Teaching Assistant

To, Jeremy

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Tutorial time: Tuesdays 5:00 - 5:50 p.m.

Tutorial venue: Room 1014, LSK Building (Zoom until further notice)

Course Description and Objectives

The main objective of this course is to provide a solid foundation of microeconomic analysis. The first half of the course covers basic decision theory and demand theory. The second half analyzes decision under risk and surveys important topics in information asymmetry. We will adopt a rigorous analytical and mathematical approach in our analyses. It is intended that, after completing this course, students will

1. understand economic critical thinking (Obj. 1)
2. understand the logic and scientific basis of economic analyses (Obj. 1)
3. have a sophisticated knowledge of economics and can use it to explain economic and social phenomena (Obj. 4)
4. analyze qualitatively basic economic and social problems (Obj. 4)
5. apply economic knowledge to practical situations and make sound economic decisions (Obj. 4)
6. conduct basic economic analysis and research of the economy and society (Obj. 4)
7. understand cultural diversity (Obj. 6)

8. have informed ethical thinking based on rigorous economic and social analyses (Obj. 8)
9. communicate effectively (Obj. 2, 7)
10. be a lifelong user of economic analysis (Obj. 9)

Textbook

Christopher Snyder and Walter Nicholson (2016): *Microeconomic Theory: Basic Principles and Extensions* (12th Edition). Cengage. (Older editions are fine).

Assessment

Participation (3%)

You are expected to behave civilly and showing respect to the instructors, teaching assistants and fellow students in lectures, tutorial sessions, and office hours. Common-sense classroom etiquette, such as turning off or silencing mobile phones during class time, is also expected.

Problem Sets (15%)

There are six problem sets. The score of the lowest one will be dropped. Group study/discussion is encouraged, but you have to turn in **your own written answers** (word-to-word copying is **not accepted**). Grading of problem sets is based on effort instead of accuracy.

Please submit your homework online at canvas.ust.hk, and make sure it is completely and successfully uploaded. Full solutions will be posted on Canvas, and more challenging questions will be discussed in tutorial.

Midterm Test (26%)

The midterm test is tentatively scheduled on **April 1** during the regular lecture time. The style and format is similar to questions in problem sets.

There is **no make-up test**. Students who miss the midterm test with a legitimate and documented reason will have the weight of the midterm test transferred to the final exam. Missing the test without a legitimate and documented reason will result in zero marks.

Final Examination (56%)

The final exam is **cumulative**. The style is similar to the midterm exam. The style is similar to questions in problem sets.

The exam is centrally administered during May 17-28 and the date and time will be announced by the ARR.

Regrading

In order to avoid problems associated with self-selection (grading mistakes that increase and decrease scores can happen, but only the one that decrease scores will be reported), disputes on individual questions will result in re-grading of the entire exam by the instructor. The re-graded score will be final and it may be higher or lower than the original one. Requests for re-grading must be submitted in writing to the instructor within one week since the score is first published.

Academic Honesty and Integrity

Academic integrity and honesty are key values of HKUST. Cheating and plagiarism are treated with **zero tolerance**. Please read the information on academic integrity carefully. It is your responsibility to be familiar with the Academic Honor Code and the content on the Academic Integrity website (<http://www.ust.hk/provost/integrity>). The Code is to be **strictly enforced**. All cheating cases are to be reported to the University **without exception**.

Tentative Lecture Plan

The plan below is tentative and may be modified as we go. Major changes will be announced in advance in lectures and/or Canvas.

1. Introduction and Overview (1 lecture)
 - Basic elements of economic modelling
 - Fundamental principles in microeconomics
 - Suggested reading: Chapter 1, 2*
2. Preference, Utility and Choice (2 lectures)
 - Relationship between these concepts
 - Suggested reading: Chapter 3*
3. Structural Properties of Preference (2 lectures)
 - Monotonicity, continuity and convexity
 - Indifference curves
 - Suggested reading: Chapter 3*
4. Theory of Utility Maximization (2 lectures)
 - Mathematical and graphical approach
 - Suggested reading: Chapter 4*
5. Applications of Utility Maximization (2 lectures)

- Lump-sum principle
 - Intertemporal consumption
- Suggested reading: Chapter 4*

6. Demand Analysis (3 lectures)

- Income and substitution effect of price changes
- Demand elasticities
- Welfare analysis

Suggested reading: Chapter 5, 6

7. Revealed Preference (2 lectures)

- Axioms of revealed preference
- Recovering the preference from choice data

Suggested reading: Chapter 5

8. Expected Utility (2 lectures)

- Independence axiom and Allias paradox
- von-Neumann-Morgenstern theorem

Suggested reading: Chapter 7

9. Risk Attitude (2 lectures)

- Mathematic and geometric representation

Suggested reading: Chapter 7

10. Risk-bearing Decision (2 lectures)

- State-space model
- Insurance purchase
- Asset investment

Suggested reading: Chapter 7

11. Modelling Risk and Information (2 lectures)

- Information structure & signal structure
- Rational information processing
- Value of information
- Sample selection

Suggested reading: Chapter 7

12. Adverse Selection (1 lecture)

- Lemon market

Suggested reading: Chapter 18

13. Signaling (1 lecture)

- Principle and applications

Suggested reading: Chapter 18