

ECON5011B/C Microeconomic Theory

The Chinese University of Hong Kong

Fall 2020

Professor HE Wei

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Session B&C: 9.30-12.15 (Wed)

Discussion sessions (Wed):

G1: 14.30-15.30; G2: 15.30-16.30; G3: 16.30-17.30.

TA: Dr. Michael Leung

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Tutorial: 13.30-15.00 (Mon)

Course Description

This course covers core topics in microeconomic theory at a graduate level. In this course, we will ask how consumers derive their choices from preferences and what allocations are optimal, and then study how agents interact with each other in a competitive market. We will emphasize the development of analytical tools and the understanding of how the theories are constructed.

Learning Outcomes

This course is designed to enable students to go on to study applied field courses and to embark on advanced studies in microeconomics in future. Upon completing this course, the students are expected to

- Acquire a solid understanding of the core topics in micro at a graduate level;
- Appreciate the structure of the theory core, building from individual behaviors to aggregate market activities;
- Be well equipped to study specialized theories in applied fields;
- Appreciate the use of modeling in furnishing theoretical arguments.

Recommended Textbooks

The lecture is mainly based on the lecture notes. Students are also encouraged to read the following references:

- A. Mas-Colell, M. Whinston and J. Green, *Microeconomic theory*, Oxford University Press, 1995.
- G. Jehle and P. Reny, *Advanced microeconomic theory*, 3rd edition, Prentice Hall, 2011.
- M. Osborne and A. Rubinstein, *A course in game theory*, MIT, 1994.

Problem Sets

Problem sets will be given regularly. As essential adjunct to the lecture material, these problem sets will assist you in preparing for the exams. Each student should submit his or her own solution on or before each due date. Late submission will not be accepted.

Teaching Mode

- All class meetings are to be conducted online.
- Back-up plan: face-to-face teaching and assessment may be resumed when the pandemic stabilizes.

Assessment

The course grade will be determined by

midterm exam (40%)

final exam (40%)

problem sets (10%)

class participation (10%): students who are absent in three or more classes will receive zero mark for Class Participation.

The assignment of grades will follow the following descriptors.

Grade	Descriptor
A	Truly outstanding performance, able to apply knowledge to novel situations/problems
A-	Thorough understanding of taught concepts, steady accumulation of knowledge and skills throughout the course
B+/B/B-	Satisfactory grasp of key concepts, consistent involvement in learning activities
C+/C/C-	Fair understanding of key concepts
D+/D	Some misunderstanding of key concepts, inconsistent efforts observed
F	Unsatisfactory performance, poor understanding of subject matter, poor efforts

Grading is done on an absolute basis in accordance with the above reference criteria, not on the basis of the distribution of marks (which is sometimes known as grading on a curve).

Backup Plan

In case face-to-face teaching and assessment is not possible due to the pandemic, an online examination or a take home examination will be conducted.

Exam Schedule

There is **NO** make-up exam for the midterm (date TBA). For those who miss the midterm exam due to medical reasons, they need to present a Doctor's note, upon which the weight of midterm exam will be transferred to the final exam (date TBA).

Course Outline

1. Consumer theory

Preferences and utility, Marshallian and Hicksian demand, indirect utility function, expenditure function, Slutsky equation, revealed preference

2. General equilibrium

Exchange economy, Pareto efficiency, competitive equilibrium, first and second welfare theorems, existence of competitive equilibrium

3. Choice under uncertainty

Independence Axiom, expected utility theory

4. Game theory

Strategic games: dominance, Nash equilibrium, Bayesian Nash equilibrium;

Extensive games: backward induction, subgame perfect equilibrium, sequential equilibrium

5. Markets with asymmetric information

Information asymmetry and adverse selection in market for lemons, signaling in job market, screening in insurance market;

Principal-agent problem: hidden action and moral hazard, hidden information and monopolistic screening

Honesty in Academic Work

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/>.

With each assignment, students will be required to submit a signed declaration that they are aware of these policies, regulations, guidelines and procedures.

In the case of group projects, all students of the same group should be asked to sign the declaration, each of whom is responsible and liable to disciplinary actions should there be any plagiarized contents in the group project, irrespective of whether he/she has signed the declaration and whether he/she has contributed directly or indirectly to the plagiarized contents.

For assignments in the form of a computer-generated document that is principally text-based and submitted via veriguide, the statement, in the form of a receipt, will be issued by the system upon students' uploading of the soft copy of the assignment.

Assignments without the properly signed declaration will not be graded. Only the final version of the assignment should be submitted via veriguide.

The submission of a piece of work, or a part of a piece of work, for more than one purpose (e.g. to satisfy the requirements in two different courses), without declaration to this effect shall be regarded as having committed undeclared multiple submission. It is common and acceptable to reuse a turn of phrase or a sentence or two from one's own work; but wholesale reuse is problematic. In any case, agreement from the course teacher(s) concerned should be obtained prior to the submission of the piece of work.