

THE UNIVERSITY OF HONG KONG
FACULTY OF BUSINESS AND ECONOMICS

School of Economics and Finance
ECON 0706/ECON 3215 – Uncertainty and Information

I. Information on Instructor

Instructor: Wing Suen
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Consultation times: Fri 4:00-6:00, and by appointment
Website: <http://www.sef.hku.hk/~wsuen/uncertainty/>

Class: Tuesday 09:30 – 10:20 & Friday 09:30 – 11:20 in KK1121
Prerequisite: ECON2101/ECON2210 Intermediate microeconomics

Textbook: Bernard Salanie, *The Economics of Contracts*, 2d. ed., Cambridge: MIT Press, 2005.

II. Course Description and Objectives

■ A short description of the course

The economics of uncertainty and information has permeated virtually every field in economics. In this course, we develop the basic tools that are used in the study of behavior under uncertainty, and introduce some standard models of imperfect and asymmetric information. The first part of the course studies the expected utility theorem and the concepts of risk aversion and stochastic dominance. The second part will apply these tools to analyze moral hazard, signaling, adverse selection, and mechanism design problems.

Fluency in elementary optimization techniques and probability modeling is important for doing well in this course. Though I will try to reduce the level of formalism, a clear understanding of the economics of uncertainty and information requires the use of mathematics. Students should be prepared to work extensively with models.

This course may be regarded as an advanced undergraduate course in microeconomic theory. Students must have completed the intermediate level Microeconomic Theory course as a prerequisite.

■ Course objectives

1. Provide students with the tools necessary for studying problems related to decision making under uncertainty and imperfect information.
2. Introduce the incentive problems that may arise in situations without perfect information, and study ways to overcome those problems.

III. Course Learning Outcomes

On completion of this course, students should be able to:

CLO1. Understand the concept of risk aversion and its behavioral implications.

CLO2. Understand the nature of the moral hazard problems and how it affects incentive structure in organizations.

CLO3. Understand how asymmetric information affects the operation of markets.

CLO4. Formulate decision-making problems involving probabilistic arguments and equilibrium inference.

IV. Alignment of Faculty Goals and Course Learning Outcomes

Aligned Faculty Goals	Course Learning Outcome
1. acquisition and internalization of knowledge of economics and finance	CLO1, CLO2, CLO3, CLO4
2. application and integration of knowledge	CLO1, CLO2, CLO3, CLO4
3. developing global outlook	CLO1, CLO2, CLO3
4. mastering communication skills	CLO4
5. inculcating professionalism and leadership	

V. Teaching and Learning Activities

TLA1. Twelve weeks of three-hour lectures to cover basic topics in the economics of uncertainty and information.

TLA2. Periodic problem sets to allow students to practice solving economic problems and building economic models.

TLA3. Supplementary reading list provides opportunity to read academic papers and to apply economic theory to real world problems.

Course Teaching and Learning Activities	Expected contact hour	Study load (% of study)
TLA1	42 hours	32%
TLA2	60 hours	45%
TLA3	30 hours	23%
Total	132 hours	100%

VI. Assessment

Each learning outcome in a course should be assessed. A matrix can be a helpful way to check that the outcomes, teaching and learning activities and assessment tasks are aligned. Students can see the direct relevance of the activities and can see that they are being assessed on what is relevant and what they have been covering during the course.

Aligned Course Learning outcomes	Teaching and learning activity	Assessment Methods
CLO1	TLA1, TLA2, TLA3	problem sets, midterm and final exam
CLO2	TLA1, TLA2, TLA3	problem sets, midterm and final exam
CLO3	TLA1, TLA2, TLA3	problem sets, midterm and final exam
CLO4	TLA1, TLA2, TLA3	class participation, problem sets, midterm and final exam

VII. Standards for assessment

1. Problem sets: 10%
2. Midterm exam: 15%
3. Class participation: 5%
4. Final exam: 60%

Course Grade Descriptors

Grade	
A	All critical aspects of the problem were clearly identified. Relevant concepts and techniques were applied to the situation; the analysis of the problem was thorough and critical. Solution to problem was coherent and complete; arguments were well-articulated and adequately supported. Good reference to class materials and beyond.
B	Most critical aspects of the problem were clearly identified. Relevant techniques were applied to the situation; the analysis of the problem was systematic. Solution to problem was complete; arguments were well-articulated and adequately supported. Appropriate reference to class materials.
C	Most critical aspects of the problem were identified. Relevant concepts were applied to the situation; the analysis of the problem was systematic. Solution to problem was coherent; arguments were consistent and adequately supported. Limited reference to class materials.
D	Basic critical aspects of the problem were identified. Relevant concepts and techniques were not well applied to the situation, and analysis of the problem remained largely descriptive. There is basic structure in the solution; some arguments were consistent but not sufficiently supported. Limited reference to class materials.
F Fail	Failed to identify basic critical aspects of the problem. Concepts and techniques applied were not relevant to the situation; analysis of the problem was descriptive or missing. Structure of the solution is incomplete; arguments were fragmented or not at all supported. No reference to the class materials.

Assessment Rubrics for Each Assessment (Same as Course Grade Descriptors)

VIII. Academic Conduct

1. Students are encouraged to work together in groups to solve the problem sets. However each student must turn in his or her own solution. Copying another student's answers is not permitted even with consent. Assignments should be completed in legible handwriting.
2. Plagiarism and cheating in exams are serious academic offenses.
3. Please observe appropriate classroom etiquette and be considerate to others.

IX. Course Schedule

Weeks 1-4: Basic tools

Weeks 5-7: Moral hazard

Weeks 8: Midterm exam

Weeks 9-10: adverse selection

Week 11: Signaling

Week 12: Mechanism design