



Instructor: René Kirkegaard
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MACK 707

Lectures: Tuesdays and Thursdays, 10:00 – 11:20, ROZH 107.

Office hours: Tuesdays and Thursdays, 12:00 – 2:00.

Description: This is a course on uncertainty and information in economics. We begin with a discussion of how uncertainty and incomplete information is modeled using probability distributions. We review how such distributions can meaningfully be compared and discuss some useful mathematical techniques. The larger part of the course focuses on the strategic interaction of asymmetrically informed agents. Thus, we cover classic topics such as adverse selection and its remedies, namely signaling and screening. We then turn to contract theory and mechanism design. In both cases, one party can alter the rules of the game and thereby manipulate other agents' incentives and ultimately the final outcome.

Textbook:

Required textbook: *Microeconomic Theory*, by Mas-Colell, Whinston, and Green (MWG), Oxford University Press, 1995.

Journal articles, when appropriate, will be listed on CourseLink.

Requirements:

4 Assignments, 7.5% each. Due dates are January 28, February 11, March 17, and April 7. Late assignments will not be accepted. *All assignments must be typed in LaTeX.*

2 Midterms, 15% each. Dates: February 23, March 22, in class.

Final exam, 40%. Date to be determined.

Course Outline:

The following course outline is tentative and may be modified at any time. Only readings from the textbook are listed. Journal articles and other references will be added as the term progresses.

The course is in four parts. We will mainly focus on the material from MWG. Time permitting, we will also explore two or three of the topics listed below. However, we will not have time to cover all the topics.

Part I: Preliminaries (no strategic interaction). Choice under uncertainty; Comparing and interpreting distributions.

Background reading on expected utility and choice under uncertainty: MWG, Sections 6.A and 6.B.

MWG, Section 6.C and 6.D.

Topic: Other stochastic orders; several sources of uncertainty (journal readings).

Part II: Adverse Selection, Signaling, Screening.

Background reading on game theory: MWG, chapters 7,8,9.

MWG, chapter 13.

Topic: Single-crossing conditions, monotone comparative statics, supermodular games (journals).

Part III: Principal-agent models.

MWG, chapter 14.

Topic: Behavioral contract theory, cheap talk, Bayesian persuasion (journals).

Part IV: Mechanism design and implementation.

Background reading on social choice/welfare economics: MWG, chapters 21, 22.

MWG, chapter 23.

Topic: Asymmetric auctions; information acquisition in auctions (journals).

Topic: Market design; matching (journals).

University Policies

Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for Academic Consideration:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

<https://www.uoguelph.ca/registrar/calendars/undergraduate/2015-2016/>

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Centre for Students with Disabilities as soon as possible.

For more information, contact CSD at 519-824-4120 ext. 56208 or email csd@uoguelph.ca or see the website: <http://www.csd.uoguelph.ca/csd/>

Course Evaluation Information

You will be asked to complete an evaluation of this course at some time during the last two weeks of the semester.

The course evaluation will be held in class. For further details, please refer to the [Course and Instructor Evaluation Website](#)

Drop date

The last date to drop one-semester courses, without academic penalty is March 11th, 2016. For regulations and procedures for Dropping Courses, see the Academic Calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>