ECON 4070: TOPICS IN MICROECONOMICS COURSE SYLLABUS FALL 2012

Jin-Hyuk Kim Assistant Professor Office location: 14B Economics Class hours: MWF 10-10:50AM Class location: Econ 117 Office hours: Wednesdays 3-5PM

Course Description

The goal of this course is to analyse now well-known concepts such as moral hazard and adverse selection and in more general terms the logic of how modern economic analysis works. At the end of the course, the students will be able to formulate and analyze strategic situations of real-world interests.

For this goal, we discuss game theoretic techniques used in a range of modern microeconomic analysis. To be more specific, we will study decision-making under uncertainty, models of static and dynamic games, and a range of applications that arises due to asymmetric information.

This course can be technical and is intended for those who would like to learn more microeconomic analysis beyond those taught at the intermediate level. This course will require steady, hard work and dedication. Class participation and a final project are required.

Prerequisites

ECON 3070 (Intermediate Microeconomic Theory)

Textbook

Dutta, Prajit, <u>Strategies and Games: Theory and Practice</u>, MIT Press 1999 Selected articles will be assigned as we go along.

Grading and Exams

Your course grade will be based on your performance on a mid-term, a final exam, a final essay, and your class attendance and participation. Exam questions could be both analytical and/or qualitative. The mid-term enters with a weight of **0.3**, and the final exam enters with a weight of **0.4**. The final is *not* cumulative although it builds on the previous material. The final essay enters with **0.2**, and class attendance and participation enter with **0.1**.

It is important to notice that no make-up exams will be given without a verifiable, documented medical or family emergency; missing an exam or presentation opportunity will result in a zero. More guideline on final essay will be given as the semester progresses. Good or bad attendance could matter at the margin of a letter grade. Depending on the enrollment size, there may be a class presentation opportunity for everyone.

University Policies

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at http://www.colorado.edu/academics/honorcode/

The University of Colorado at Boulder policy on Discrimination and Harassment, the University of Colorado policy on Sexual Harassment and the University of Colorado policy on Amorous Relationships apply to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH, the above referenced policies and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at http://www.colorado.edu/odh

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, please see me at least two weeks prior to any conflicts due to religious observances. See full details at www.colorado.edu/policies/fac_relig.html

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, and <u>www.Colorado.EDU/disabilityservices</u> If you have a temporary medical condition or injury, see guidelines at <u>http://www.colorado.edu/disabilityservices/go.cgi?select=temporary.html</u>

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See polices at http://www.colorado.edu/policies/classbehavior.html and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

Tentative Course Outline

- 1. Introduction
- 2. Expected Utility (Ch.27)
- 3. A First Look (Ch.1&2)
- 4. Strategic Form Game (Ch.3)
- 5. Dominance and Nash Equilibrium (Ch.4&5)
- 6. Commons Problem (Ch.7)
- 7. Mixed Strategies (Ch.8)

Midterm Exam

- 8. Extensive Form Games (Ch.11)
- 9. R&D (Ch.12)
- 10. Subgame Perfection (Ch.13)
- 11. Repeated Games (Ch.14&15)
- 12. Incentive Theory (Ch. 19)
- 13. Signaling (Ch. 24)
- 14. Presentations

Final Exam