# **Economics 7006 Microeconomic Theory**

Instructor: Subhasish Dugar Phone: 801 587 1294 Email: subhasish.dugar@economics.utah.edu Lecture Location: Building 73, Room # 111 Lecture Days/Time: MW 8:05 – 9:25 AM

Office: Building 73 Room 246 Office Hours: By appointment

Spring 2017

**Textbook:** Strictly speaking, I will not follow any textbooks. Instead, I will teach from my personal notes. For a few topics I may distribute lecture notes. If you want a reference book to use as a supplement, I have a few suggestions.

Drew Fudenburg and Jean Tirole, *Game Theory*, The MIT Press, 1991.

Robert Gibbons, Game Theory for Applied Economists, Princeton University Press, 1992.

Andreu Mas-Collel, Michael Whinston, and Jerry Green, *Microeconomic Theory*, Oxford University Press, 1995.

Geoffrey A. Jehle and Philip J. Reny, Advanced Microeconomic Theory, Pearson, 2011.

Hal Varian, Microeconomic Analysis, W. W. Norton & Company, 1992.

Any editions of the listed books will serve your purpose.

### **Books on Reserve:**

Drew Fudenburg and Jean Tirole, *Game Theory*, The MIT Press, 1991. Robert Gibbons, *Game Theory for Applied Economists*, Princeton University Press, 1992. Andreu Mas-Collel, Michael Whinston, and Jerry Green, *Microeconomic Theory*, Oxford University Press, 1995.

Geoffrey A. Jehle and Philip J. Reny, *Advanced Microeconomic Theory*, Pearson, 2011. Hal Varian, *Microeconomic Analysis*, W. W. Norton & Company, 1992.

**Course Outline:** This is an advanced course in microeconomic theory. The course is purely theoretical in nature. The goal of the course is to introduce you to a self-contained analysis of the major building blocks of microeconomic theory: choice under risk and uncertainty, game theory, information economics, and social choice. Some of the topics listed above may not be covered if we run out of time. This course is designed to meet the needs of students in an economics Ph.D. program. Some parts of the course are designed to teach material that all graduate students should know. Others are used to introduce methodologies.

### **Tentative Topics:**

Risk and Uncertainty, Games in Strategic Form and Nash Equilibrium, Dominated Strategies, Mixed-Strategy Nash Equilibrium, Extensive Form Games, Behavioral Strategies, Strategic Form Representation of Normal Form Games, Backward Induction and Subgame Perfection, Bayesian Games and Bayesian Equilibrium, Perfect Bayesian Equilibrium, The Basic Signaling Games, Moral Hazard and Incentives, Adverse Selection, Social Preferences, Arrow's Impossibility Theorem, Social Choice Functions, The Utility Possibility Sets, Axiomatic Bargaining Theory.

#### Grade Determination and Examination Details:

There will be two midterms and a final, all given in class.

Midterm Exam I: Wednesday February 15 Midterm Exam II: Wednesday March 22 Final Exam: Monday April 24

All examinations will be closed-book and closed notes and will be comprehensive in nature.

The midterms will be worth 25% each and final will be worth 40% of your final grade.

Students who are unable to write a midterm because of an illness, family emergency or religious observance will have the midterm weight shifted to the final examination. Documentation MUST be provided.

Four assignments will be given in class and must be handed in for marking. These assignments will represent the remaining 10% of your final grade, each assignment weighing 2.5%. All assignments must be handed in by all individuals in the class, including anyone who is auditing or just sitting in for fun. In addition, please note: A PASSING GRADE ON ASSIGNMENTS IS A NECESSARY CONDITION FOR PASSING THE COURSE. Assignments must be submitted before the start of the class. No exceptions will be entertained.

Assignment 1. Jan 23, due Feb 1 Assignment 2. Feb 6, due Feb 13 Assignment 3. Feb 27, due Mar 6 Assignment 4. Mar 29, due Apr 5

Midterm and final exam are marked on a numerical basis, then converted to letter grades. The course grade is then calculated using the weights indicated above. As a guide to determining standing, these letter grade equivalences will apply:

 $A \ge 93\%$   $93\% > A \ge 90\%$   $90\% > B+ \ge 87\%$   $87\% > B \ge 83\%$   $83\% > B- \ge 80\%$   $80\% > C+ \ge 77\%$   $77\% > C \ge 73\%$   $73\% > C- \ge 70\%$   $70\% > D+ \ge 65\%$   $65\% > D \ge 60\%$   $60\% > D- \ge 50\%$ 50% > E

If you have questions regarding grading of an exam question, you must ask within **two weeks** from the day the graded exam is handed back in the class. No exceptions to this rule will be entertained.

#### Notes:

• Cheating on exams and other forms of academic dishonesty may lead to expulsion from the class, failure of the class, or more severe penalties such as dismissal from the University. In accordance with University regulations (University Policy 6-400, Section V, B, 4, at, if you are

caught cheating in this class, I must send a letter to your dean about that, and the letter will be put in your permanent University file. I punish cheating quite severely.

## • Americans with Disabilities Act (ADA) Statement

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability Services. (www.hr.utah.edu/oeo/ada/guide/faculty/)

## Wellness Statement

Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness - www.wellness.utah.edu; 801-581-7776.