

# Economics 7006: Microeconomic Theory II (3 credits)<sup>1</sup>

## Spring 2023

Instructor:	Pavitra Govindan
Classroom:	GC 3153
Lectures:	Mon & Wed 3:00 PM - 4:20 PM
Office Hour:	Mon 1:30-2:30 PM in GC 4228 or by appointment
Email:	<a href="mailto:Pavitra.govindan@utah.edu">Pavitra.govindan@utah.edu</a>

### Course Description

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 some of the major building blocks of microeconomic theory: choice under risk and uncertainty, game theory, and information economics. The course is designed for PhD students in Economics and will uncover the methodologies commonly used in microeconomics.

### Content Overview

At the end of the class, you will know and be able to solve problems involving the following concepts:

Decision Making under Uncertainty: preferences over lotteries, expected utility, risk aversion, stochastic dominance.

Non-Cooperative Game Theory: representations of games (extensive form and normal form), solution concepts (dominance and Nash equilibrium), static games of complete and incomplete information, dynamic games of complete information, subgame perfection, dynamic games of incomplete information

Signaling Games

Moral Hazard and the Principal Agent Problem

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<sup>1</sup> This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. I may also modify the Course Schedule to accommodate the needs of the class. Any changes will be announced in class and posted on Canvas under Announcements.

## Assessment

You will have three in-class exams:

**Midterm 1** (25%) on Feb 8<sup>th</sup>, 2023, class time

**Midterm 2** (25%), on March 22<sup>nd</sup>, 2023, class time

**Final Exam** (40%) on May 3<sup>rd</sup>, 2023, 3:30- 5:30 PM.

You will have four assignments (10%).

The assignments will *not* be graded. You will receive 2.5 points for each assignment submitted on Canvas before the due date. I will provide you with the answer key to the assignments after the due date and no points will be given for late submission of the assignments.

## Required Textbook

*Advanced Microeconomic Theory 3<sup>rd</sup> Edition* by Geoffrey A. Jehle and Philip J. Reny,  
(here after referred to as (JR) in the syllabus)

## Other Reference Textbooks

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.

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

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

Any editions of the listed books will serve your purpose.

## Teaching and Learning Methods

This course will be based on in-class lectures. We will study microeconomic theory and solve problems using the concepts we learn. Active participation in these problem-solving sessions is encouraged.

## Classroom Policies

You should inform me in advance to request special consideration in the case of some extenuating circumstance that prevents you from taking an exam at the scheduled time. If the extenuating circumstances pertain to medical reasons, I require you to submit a doctor's note. Make-up exams will not be given for any reason. Instead, I will assign points to the missed exam proportional to your performance in the other two exams. This accommodation will only be made for genuine reasons and for one of the missed exams. The final exam will not be given at multiple dates to accommodate travel plans. Consistent attendance is strongly recommended but

attendance is not taken.

## Grading Scale

The following table gives the grading scale.

Grade	Score (s)
A	$94 \leq s$
A-	$90 \leq s < 94$
B+	$87 \leq s < 90$
B	$83 \leq s < 87$
B-	$80 \leq s < 83$
C+	$77 \leq s < 80$
C	$73 \leq s < 77$
C-	$70 \leq s < 73$
D+	$65 \leq s < 70$
D	$60 \leq s < 65$
D-	$50 \leq s < 60$
E	$s < 50$

## Tentative Schedule

Week	Mon	Wed	Chapter(s), topic	Note
1	1/9	1/11	Choice under uncertainty (2.4.1)	
2	1/16	1/18	MLK Jr. Day holiday, VNM utility (2.4.2)	
3	1/23	1/25	Risk Aversion (2.4.3)	
4	1/30	2/1	Risk Aversion application (2.4.3), Normal form Games (7.2)	A1, 2/1
5	2/6	2/8	Weakly dominated Strategies (7.2.1), Midterm Exam 1	
6	2/13	2/15	Nash Equilibrium (7.2.2), Mixed strategies (7.2.2)	
7	2/20	2/22	Presidents' Day holiday, Bayesian Games (7.2.3)	
8	2/27	3/1	Bayes Nash Equilibrium (BNE), BNE applications	A2, 3/1
9	3/6	3/8	Spring Break	
10	3/13	3/15	BNE applications, Dynamic games of complete info	
11	3/20	3/22	Subgame Perfect Nash Equilibrium, Midterm Exam 2	
12	3/27	3/29	SPNE application, Dynamic games of incomplete info (PBE)	
13	4/3	4/5	Signaling Games (8.1)	A3, 4/5
14	4/10	4/12	Signaling Games applications, Moral Hazard (8.2)	
15	4/17	4/19	Moral Hazard (8.2)	
16	4/24		Review	A4, 4/24

## University Policies

- 1. *The Americans with Disabilities Act.*** 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 this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, (801) 581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services.
- 2. *University Safety Statement.*** The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit [safeu.utah.edu](http://safeu.utah.edu).
- 3. *Addressing Sexual Misconduct.*** Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).
- 4. *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 at [www.wellness.utah.edu](http://www.wellness.utah.edu) or 801-581-7776.
- 5. *Student Names & Personal Pronouns statement.*** Class rosters are provided to the instructor with the student's legal name as well as "Preferred first name" (if previously entered by you in the Student Profile section of your CIS account, which managed can be managed at any time). While CIS refers to this as merely a preference, I will honor you by referring to you with the name and pronoun that feels best for you in class or on assignments. Please advise me of any name or pronoun changes so I can help create a learning environment in which you, your name, and your pronoun are respected. If you

need any assistance or support, please reach out to the LGBT Resource Center.  
[https://lgbt.utah.edu/campus/faculty\\_resources.php](https://lgbt.utah.edu/campus/faculty_resources.php)