

University of Alberta
Department of Economics

Econ 505 - Microeconomic Theory II

WINTER 2020

Instructor:	Corinne Langinier	Time:	Tues-Thur 12:30-1:50 pm
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Phone:	(780) 492-2989	Office Hours:	Tue 2:00-3:20 pm
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Prerequisites: Econ 503 (Microeconomic Theory I) or an equivalent course

Main Textbook: Mas-Colell, A., M.D. Whinston and J.R. Green (1995), *Microeconomic Theory*, New York: Oxford University Press.

Complementary Textbook: Jehle, G.A. and P.J. Reny (2001), *Advanced Microeconomic Theory*, second edition, Boston: Addison Wesley.

Grading: There will be 4 homework assignments, one midterm exam and a final exam. They will count toward the grade as follows:

Assignments	40%
Midterm (Tuesday, February 25, 2020)	20%
Final (Thursday, April 16, 2020)	40%

Final letter grades will be assigned in accordance with university and departmental policies.

Course Overview and Policies

This course is the second of two required microeconomics courses in the Economics Ph.D. core sequence. Topics include: non-cooperative game theory and the economics of information.

There will be **one midterm exam** and **one final exam**. There will be no make-up exams. If a student misses the midterm exam and has a well-documented, university-approved excuse (such as severe illness), the grade weights for the final exam will be scaled up appropriately. Students who miss the midterm exam because of a medical reason must submit the Medical Declaration Form to the Faculty. All students must take the final exam to be assigned a grade. The final exam will be cumulative. Students who miss the final exam may apply to the Faculty for a deferred exam.

Homework assignments will be assigned on Thursday, and all written homework assignments will be due next week, on Thursday. They will not be accepted late for any reason. There will be four homework assignments, and every homework assignment will be included in the final grade calculation. Homework assignments 1 and 3 will be problem-solving. Late problem sets will not be accepted for any reason. Homework assignment 2 will be the presentation of a **published paper** during the 6th week of class. Homework assignment 4 will be the presentation of a referee report written on an **unpublished paper** during the 14th week of class. For homework assignments 2 and 4, students must choose a paper from a suggested list that will be provided in class.

Homework	Date	Due on
Hom # 1 Problem solving	Thursday, January 23	Thursday, Jan. 30
Hom # 2 Presentation Published paper	now	Presentations Feb. 11 and 12
Hom # 3 Problem solving	Thursday, March 12	Thursday, March 19
Hom # 4 Presentation Referee report	now	Presentations April 2 and 7

Access to Past and Present Evaluative Materials

Midterm and final exams from previous years (or sample exams) will be posted on the webpage of the class.

Policies

Class attendance is **mandatory**. Students are encouraged to collaborate on homework assignments, but only with classmates currently enrolled in this course. Students must not use answers from previous years; if I determine that a student did, he/she will get a zero for that assignment. All exams are closed book/closed notes/no collaboration.

Policies concerning **connected devices: laptops and tablets are not allowed in class; phones must be turned off at all times and stored in your bag.**

Audio or video recording, digital or otherwise, of lectures, labs, seminars or any other teaching environment by students is allowed only with the prior written consent of the instructor or as part of an approved accommodation plan. Student or instructor content, digital or otherwise, created and/or used within the context of the course is to be used solely for personal study and is not to be used or distributed for any other purpose without prior written consent from the content author(s).

Outline of Topics and reading list (may be subject to changes)

1. Noncooperative Game theory

General references

- D. Fudenberg and J. Tirole (1991), *Game Theory*, Cambridge, Mass: MIT press.
- D. Kreps (1990), *Game Theory and Economic Modeling*, Oxford University Press.
- P. K. Dutta (1999), *Strategies and Games: Theory and Practice*, MIT Press.
- K. Binmore (1992), *Fun and Games: A text on Game Theory*, D.C. Heath.

Real world examples or applications can be found in

- H. S. Bierman and L. Fernandez (1993), *Game Theory with Economic Applications*, Addison-Wesley Publishing Company.
- R. Gibbons (1997), *Game theory for applied economists*, Princeton University Press.
- MacMillan (1992), *Games Strategies and Managers*, Oxford University Press.
- Dixit and Nalebuff (1993), *Thinking Strategically*, New York, Norton.

Web sites

- <http://www.gametheory.net/books/online.html>
- <http://levine.sscnet.ucla.edu/david.htm>

1.1. Game theory: basic elements

- Chapter 7, Mas-Colell, A., M.D. Whinston and J.R. Green (1995)
- Chapters 1 and 2, Dutta (1999)

1.2. Simultaneous-move games

- Chapter 8, Mas-Colell, A., M.D. Whinston and J.R. Green (1995)
- Chapter 7, section 7.1-7.2, Jehle, G.A. and P.J. Reny (2001)
- Chapters 3, 4, 5, 8, 10, 20 and 28, Dutta (1999)

1.3. Dynamic games

- Chapter 9, Mas-Colell, A., M.D. Whinston and J.R. Green (1995)
- Chapter 7, section 7.3, Jehle, G.A. and P.J. Reny (2001)
- Chapters 11, 13, 14 and 15, Dutta (1999)

2. Economics of Information

General references – Books

- J.J. Laffont and D. Martimort (2002), *The Theory of Incentives: The Principal-Agent Model*, Princeton University Press.
- I. Macho-Stadler and D. Pères-Castrillo (1997), *An Introduction to the Economics of Information – Incentives and Contracts*, Oxford University Press.

General references – Articles

- O. Hart and B. Holmström (1987), The Theory of Contracts, in T.F. Bewley (ed.), *Advances in Economic Theory: Fifth World Congress of the Econometric Society*, 71-155, Cambridge University Press: Cambridge UK.
- B. Holmström (1979), Moral Hazard and Observability, *Bell Journal of Economics* 10, 74-91.
- B. Holmström and P. Milgrom (1991), Multi-Task Principal Agent Analysis, *Journal of Law, Economics and Organization* 7, 24-52.

2.1. Adverse selection, signaling and screening

- Chapter 13, Mas-Colell, A., M.D. Whinston and J.R. Green (1995)
- Chapter 8, section 8.1, Jehle, G.A. and P.J. Reny (2001)
- Chapter 24, Dutta (1999)

2.2. The principal-Agent model

- Chapter 14, Mas-Colell, A., M.D. Whinston and J.R. Green (1995)
- Chapter 8, section 8.2, Jehle, G.A. and P.J. Reny (2001)

- Chapters 19 and 22, Dutta (1999)

2.3. Explicit versus Implicit Incentives

- Baker, Gibbons, and Murphy, 1994, “ Subjective Performance Measures in Optimal Incentive Contracts,” *The Quarterly Journal of Economics*
- Holmstrom, 1999, “Managerial Incentive Problems: Dynamic Perspective,” *Review of Economic Studies*
- Levin, 2003 “Relational Incentive Contracts,” *American Economic Review*
- Schottner, 2007, “Relational Contracts, Multitasking, and Job Design,” *The Journal of Law, Economics, & Organization*

Other Notes

As per request of the University administration, please familiarize yourself with the following:

- Policy about course outlines can be found in the Evaluation Procedures and Grading System section of the University Calendar.
- The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (online at www.governance.ualberta.ca) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.
- The Faculty of Arts is committed to ensuring that all students, faculty, and staff are able to work and study in an environment that is safe and free from discrimination and harassment. It does not tolerate behaviour that undermines that environment.
- If you have a condition that may require some classroom or exam modifications, please contact Accessibility Resources to obtain a determination as to what accommodations should be made.
- The Academic Success Centre offers a variety of learning resources, including a variety of workshops in learning effective study and exam strategies.