

Res Ec 711 – Applied Microeconomic Theory (I)
Fall 2022

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Course Time: TuTh 1:00-2:15pm
Location: Flint 103
Office hours: W 9-10am & by appt.

Course Objectives

This is a graduate level course in the theory of the single market, the firm, and the consumer. Prerequisites for this course are a working knowledge of differential calculus, linear algebra, and intermediate microeconomic theory. Topics such as welfare economics, general equilibrium, game theory, and imperfect competition will be covered in ResEc712 next semester. Fundamentally the purpose of this course is to introduce you to the building blocks of microeconomic theory. This will provide you with the tools necessary to both understand and conduct research in economics.

Textbooks

The course material will be drawn from a variety of sources. Jehle and Reny, *Advanced Microeconomic Theory* (3rd edition).¹ Other texts that you could use are: Nechyba *Microeconomics* (2nd edition), Mas-Colell, Whinston, and Green, *Microeconomic Theory* (1st edition.) I find that the Mas-Colell, Whinston, and Green is encyclopedic and I often use it as a reference if I want more detail. I do find that the questions in this text are more challenging than I would like and so I do not use it as the text book for the course. You could also use the web-based text book: Introduction to Economic Analysis by Preston McAfee: <https://www.mcafee.cc/Papers/Introecon/>

I would highly recommend you have a copy of a good mathematical economics book. I would recommend either Sydsaeter and Hammond, *Mathematics for Economic Analysis*, Hands, *Introductory Mathematical Economics*, 2nd edition, or Chiang, *Fundamental Methods of Mathematical Economics*, 3rd or 4th edition. Baldani, Bradfield, and Turner, *Mathematical Economics*. You may also find it helpful to have an intermediate microeconomic theory book handy.

Grading

There will be two midterm exams and a final exam. Below is a breakdown of how your grade will be determined:

Lower Midterm Grade	15%
Higher Midterm Grade	25%
Final Exam	35%
Weekly problem sets	25%

I will drop your lowest homework grade. Minimum grade cutoffs: 95=A; 85=A-; 80=B+; 75=B; 70=B-; 65=C+; 60=C; <60=F.

¹ The 2nd edition will be fine if you can get it cheaper.

Homework

Because we may be discussing parts of the homework during class, homeworks are due at the start of class on the day assigned. Late homework will not be accepted without a compelling reason.

Problem sets will be posted on the course MOODLE page. You will be expected to download and print these on your own. (If you do not know how to do this, see me and I will show you). You are responsible for turning your problem sets in on time. I understand that the network may be down from time to time, or printers may not be working properly. My advice to you is to plan accordingly; **computer problems are not a valid reason for turning assignments in late.**

I believe that collaborative effort is a great way to learn. Therefore, for the homework, I strongly urge you to work in groups. However, you must turn in your own independent assignment.

MOODLE

Students can access Moodle in a variety of ways:

- Directly through <http://moodle.umass.edu>
- From SPIRE by clicking the LMS link associated with your course
- From the OIT site at <http://www.oit.umass.edu>

Once logged-in to Moodle, students can click on **Navigation > My Home** to see just the courses in which they are enrolled. If a course has not yet been released to students, it will not appear in this list. For more information about student access to Moodle see:

<http://www.oit.umass.edu/support/moodle/student-access-moodle-courses>

Cheating

Please don't. Anyone caught cheating will receive an F for the course, and I will follow university procedures to pursue the matter to the fullest extent possible. The university has clear guidelines as to what constitutes academic honesty. It is your responsibility to read and understand the University's Academic Honesty Policy, which can be found at http://www.umass.edu/dean_students/rights/acad_honest.htm.

Also, remember that plagiarism includes not only copying someone else's *words* verbatim without appropriate citation, but also copying someone else's *ideas* and presenting them as your own. Again, if you are unsure, ask.

Course Outline – This Calendar is preliminary and is subject to change as we progress through the course. There are Problem Sets for each chapter. They will be due the Thursday in the week following when we complete the chapter.

Week	Topics	Chapters	Notes
1 – Sept 6, 8	Introduction Math Review	Mathematical Appendix 1	Graduate Student Research Conference is on the 9th
2 – Sept 13, 15	Math Review	Mathematical Appendix 1 and 2	
3 – Sept 20, 22	Chapter 1 Preferences and Utility	Chapter 1, 1.2 & 1.3	
4 – Sept 27, 29	Chapter 1 The Consumer Problem	Section 1.3 & 1.4	
5 – Oct 4, 6	Chapter 1: Properties of Demand	Section 1.5	
6 -- Oct 11, 13	Midterm 1—Thurs Oct 13th	Math, Chapter 1, sections 1.1-1.4, PS 1- 4.	
7 – Oct 18, 20	Chapter 2: Topics in Consumer Theory	2.1 and 2.3	
8 – Oct 25, 27	Chapter 2: Topics in Consumer Theory- Uncertainty	2.4	
9 – Nov 1, 3	Chapter 3: Theory of the Firm	3.1, 3.2, 3.4	
10 – Nov 8, 10	Chapter 3: Theory of the Firm	3.5 Profit Maximization	
11 – Nov 15, 17	Midterm 2 Thurs Nov 17	Midterm 2 Chapters 1,2 and 3.	
12 – Nov 22 UMass FRIDAY	This is the week of Thanksgiving. Tuesday is a UMass Friday for veteran’s day.		
13 – Nov 29, Dec 1	Chapter 4: Partial Equilibrium		
14 – Dec 6. 8	Public Goods and Externalities. Experimental Economics		
	FINAL EXAMINATION		