

**Course Syllabus**  
**Applied Microeconomics: Firm and Household**  
**APEC 5151 – Fall 2016**  
*Last Edited 18 October 2016*

**Objective**

This is an advanced course in applied microeconomic theory. The main focus of the course is to help students build intuition about economic models and develop skills using the analytical tools of microeconomic theory that they can use in later economics coursework and research. This course will cover the fundamental methods and theories of microeconomics and provide students with the basic mathematical tools and concepts required to understand scientific papers. Through working on advanced problems and empirical implementations of the introduced theories, students will improve their understanding of how microeconomic theory is used today to solve real world social and economic problems.

**Instructor**

Professor Jason Kerwin

316C Ruttan Hall

Office hours: Tuesdays 11:30AM-12:30PM, Wednesdays 12:00-1:00PM & by appointment.

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**Textbook**

Required Textbook:

Walter Nicholson and Christopher Snyder (NS)

*Microeconomic Theory: Basic Principles and Extensions*, 11<sup>th</sup> edition (2012)

Cengage Learning

ISBN: 978-1111525538

Please make sure you get the correct textbook. Nicholson and Snyder also co-author an undergraduate textbook with a similar name and edition number – this is not that book! Students are principally responsible for the material covered in the lecture slides, but this textbook is a good reference for the topics covered in the course. In addition, I will assign homework problems from the book. I advise you to buy the textbook, but copies of the book will be placed on 2-hour reserve in both McGrath Library and Waite Library.

Optional Textbook:

Eugene Silberberg and Wing Suen (SS)

*The Structure of Economics: A Mathematical Analysis*, 3<sup>rd</sup> edition (2016)

McGraw-Hill/Irwin

ISBN: 978-0072343526

This is a useful supplementary text that covers the mathematical tools we will use in the course. The 3<sup>rd</sup> edition is new and may be pricey, but you should be able to find used copies of the 2<sup>nd</sup>

edition which will work fine as well. This book will also be placed on 2-hour reserve in both McGrath Library and Waite Library.

## **Lectures**

Tuesdays and Thursdays, 3:00-4:15 PM in 6 McGrath Library.

The lectures are the primary content that students are responsible for learning in the course; the textbook is a useful supplement but will not cover everything in the class. You are therefore strongly encouraged to take notes in class. To help you do so, I will make the slides available ahead of time. Writing notes on a printed copy of the slides, and then transcribing them into clean handwriting at the end of each week, is an important tool to help you learn the material.

My lecture slides are based, with permission, on slides that Professor Metin Çakır developed for earlier versions of this course.

## **Assignments and Grades**

Your grade in this course will be a weighted average of four components:

1. Final – 40%

The final is a comprehensive exam, held during finals week. It will be worth 40% of your grade.

2. Midterm – 30%

There will be one midterm exam, held during lecture. This exam is worth 30% of your grade.

3. Problem Sets – 30%

Practicing solving economics problems is the single best way to learn the material and to prepare for the exams. I will assign 5 or 6 problem sets over the course of the semester – the exact number is subject to change over the course of the semester as I adapt the course schedule to the comfort level of the class. Problem sets will be due at the *beginning* of lecture one week after they are posted on the course Moodle site.

I believe that you will benefit from working together in small groups on homework assignments. Therefore I encourage cooperative work on assignments in pairs. You can submit your completed answers as a pair. If you need help finding a partner for the problem sets please contact me. I discourage groups larger than two; please contact me if you would like to have a larger group and I will consider each request on a case-by-case basis.

You are encouraged to work together on homework assignments with the other groups but are expected to write up your own answers as a group. In other words, asking questions

about how to do a problem and working together to figure out how to do a problem is perfectly acceptable, while simply copying someone else's answers is not acceptable.

To allow for extenuating circumstances, the lowest problem set score will be dropped from each student's course average. So if there are N problem sets then problem set portion of your grade will be based on your N-1 highest-scoring problem sets.

#### *Late and Missed Assignments and Exams*

There will be no make-up exams. If you have a justifiable absence from the midterm, the final exam will account for the entirety of your exam grade (making an adjustment for the class mean on the exam you miss). If your absence from the midterm is not justified, you will receive a grade of zero. It is very difficult to accommodate missed final exams, so I strongly encourage you to attend the final exam if at all possible.

I will not accept late problem sets for a grade. Instead, as noted above, the lowest problem set score will be dropped when computing your course grade. However, I encourage you to complete all the problem sets even if you miss a deadline because they are excellent practice for the exams.

#### *Academic Misconduct*

Students found to be guilty of academic misconduct will receive an F for the quiz, or exam and may receive an F for the course. Serious cases of academic misconduct may necessitate the involvement of higher levels of the university administration. Academic misconduct includes cheating on problem sets or exams. Students may work together on problem sets, but each student should write their own problem set.

#### *Grading Policy*

Consistent with prior terms of 5151, I plan to aim for a class average of a B+. This means that I will grade the class on a curve, and what matters is your performance relative to that of other students. Your overall grade in the course will be based on the weighted average described above, but I will also look at trends in your performance. If you do badly on the first midterm but excel on the final, I will adjust your grade to reflect that.

Should you disagree with the grade you receive on an assignment, you must submit a written explanation of why you deserve a higher grade within one week of receiving the graded assignment. I will not discuss re-grade requests that are submitted late, or verbal requests, because I want to document the grading process and make it fair for all students. I will not consider any frivolous re-grade requests: all requests for re-grades must be based on legitimate grading errors, and not a desire or need for a higher grade.

## Calendar

Below is a *tentative* schedule for the semester. I will move through the material at a pace at which the entire class is comfortable, so this schedule is subject to change: it is more important to ensure that everyone is learning than to stick to a strict calendar for the course. When the calendar changes I will send an updated version.

Date	Topic	Reading	Problem Sets
Sep. 6	Course Introduction & Math Review	Syllabus, NS Ch. 1-2, SS Ch. 1-3	
Sep. 8	Math Review		
Sep. 13	Preferences & Utility	NS Ch. 3, SS Ch. 10-11	
Sep. 15	Utility Maximization	NS Ch. 4	PSet #1 Assigned
Sep. 20	Expenditure Minimization		
Sep. 22	Comparative Statics & the Slutsky Equation	NS Ch. 5	PSet #1 Due
Sep. 27	Demand Relationships & Welfare Measures	NS Ch. 6	
Sep. 29	The Almost Ideal Demand System		PSet #2 Assigned
Oct. 4	Production Functions	NS Ch. 9, SS Ch. 4-8	
Oct. 6	Production Functions		PSet #2 Due
Oct. 11	Profit Maximization	NS Ch. 10-11	
Oct. 13	Cost Minimization		PSet #3 Assigned
Oct. 18	Producer Theory: Duality		
Oct. 20	Producer Theory: Short-Run vs. Long-Run		PSet #3 Due
Oct. 25	Partial Equilibrium	NS Ch. 12	
Oct. 27	<b>Midterm (in class)</b>		
Nov. 1	Partial Equilibrium		PSet #4 Assigned
Nov. 3	General Equilibrium	NS Ch. 13	
Nov. 8	General Equilibrium		PSet #4 Due
Nov. 10	Monopoly	NS Ch. 14	
Nov. 15	Monopoly		PSet #5 Assigned
Nov. 17	Cartels	NS Ch. 15	
Nov. 22	Game Theory	NS Ch. 8	PSet #5 Due
Nov. 24	Thanksgiving – No Class		
Nov. 29	Game Theory		
Dec. 1	Oligopoly		
Dec. 6	Oligopoly		PSet #6 Assigned
Dec. 8	Oligopoly		
Dec. 13	Review		PSet #6 Due
Dec. 20	<b>Final Exam, 10:30 AM - 12:30 PM in 6 Magrath Library</b>		