Overview
This course provides a first-semester rigorous and intuitive foundation in microeconomic theory at the graduate level. We focus on the theory of the firm, the theory of the consumer, and on basic models of markets (competition and monopoly; oligopoly will appear in Micro II). Microeconomic theory is of interest both in its own right and because it can help us understand the world around us. Along the way we will explore applications of theory to common observations, policy questions, and to empirical analyses. Undergraduate knowledge of microeconomic theory at the level of Vanderbilt's Econ 3010 is essential and presumed; experience with mathematics up through partial derivatives is also presumed. This course draws on mathematical material from Econ 8000, which should be taken during the same semester.

Instructor/TA Information
Instructor:
Andrew F. Daughety, Gertrude Conaway Vanderbilt Professor of Economics and Professor of Law
Office Address: Calhoun Hall 312
Telephone number: 322-3453 (my office); 322-2871 (Economics)
Fax number: 343-8495
email: andrew.f.daughety@vanderbilt.edu
web page: http://www.vanderbilt.edu/econ/faculty/Daughety/Daughetyhome.html
Office Hours:  M: 11:00 - 11:30 am; Th: 2:30-4 pm, and by appointment

TA:
Andrew Fredrickson, Ph.D. student in Economics
Office-Hours Address: Calhoun Hall 209
Telephone number: 322-2871 (Department - leave a message)
Fax number: 343-8495
e-mail: andrew.s.fredrickson@vanderbilt.edu
Office Hours: Tu: 8 - 9 am; W: 2:30 - 4 pm

Class Session: M, W: 9:35-10:50 am, SC 1312 (temporary)/CL 423 (eventual)
Problem Session: F: 1:10-2:25 pm, Calhoun Hall 103 (This period will be sometimes used for standard class meetings as well).

Method of Instruction
Lecture format; notes should be taken by students (they will not be handed out by the instructor). Our main texts will be Varian, H., Microeconomic Analysis (V), 3rd Edition (Norton) 1992, and Mas-Colell, A., M. D. Whinston and J. R. Green, Microeconomic Theory (MWG), Oxford University Press, 1995. Both are available in the bookstore. A book which is recommended (and is also available in the bookstore) is Jehle, G. M. and P. J. Reny (JR), Advanced Microeconomic Theory, 3rd Ed., Addison-Wesley, 2011. My lectures will primarily be drawn from V, MWG, and a small amount from JR; there will also be some material I will add to expand or develop some issues. This is a graduate course so you should expect material, not directly covered in these texts, will show up in class. I have posted a copy of Ariel Rubinstein's Lecture Notes on Microeconomic Theory (these primarily focus on consumer theory and some sections are quite advanced) and Nolan Miller's Notes
on Microeconomic Theory (these parallel and expand on MWG) in a folder on our class Blackboard website labeled "Handouts". A recommended supplementary text is Varian’s undergraduate text (probably available in the bookstore or at Amazon); a student from a previous year's class recommended Binger and Hoffman, Microeconomics with Calculus. Other students have recommended Nicholson’s Microeconomic Theory, which I think of as somewhere between an undergraduate textbook and a graduate textbook (there are many editions of this book).

**A few words about reading V and MWG.** We will cover the first 14 chapters of Varian (material from Chapter 12 will show up in parts of the discussion as we go), so you should plan on approximately one chapter per week, though as the schedule below indicates, there is some variance amongst the chapters (e.g., Chapter 1 and related material will about 2 - 2.5 weeks). We will cover the first six chapters of MWG as we cover V, but this means that the order is not sequential in MWG. We start with Chapters 1-6 in V to cover the theory of the firm; the relevant starting chapter in MWG is Ch. 5, but you are likely to find MWG rough sledding if you don't read V first, so read some V and find the related material in MWG and then read that. Some of the homework is designed to push you into MWG. As we get to the theory of the consumer (chapters 7 - 10), now go look at the earlier chapters of MWG, which should be more accessible. Keep feathering these two sources together, as our ultimate goal is to have you very familiar with MWG by the end of the course (it is the likely source for Micro II).

The TA will offer a separate problem and topics discussion each week (on Friday, from 1:10 to 2:25 pm; see the tentative schedule below for when I will use this time period as a class). While this problem session is in addition to the normal credit hours, past experience indicates that all students can benefit by regularly attending it. The primary difference between the problem sessions and the class sessions (besides the identity of the instructor) is that problem sessions are meant to summarize material previous covered in the class sessions and to introduce new applications/problems to be analyzed using what was examined in class; the class session introduces new material, some of which is not in the texts. There may also be material in the texts which we do not cover in class, and some of that is fair game for exams.

A word about office hours. Both the TA and I will post office hours. If you are having some difficulty, please do drop by during those hours to see one of us, or if those are not good times email me and schedule a time to see me. Monday’s office hours slot is short; it is mainly for you to stop by with a quick issue or to indicate a deeper concern that we can then schedule a meeting time to address. Thursday’s slot will be longer, so as to allow more time. For visits with the TA, please stick to the TA’s listed hours as there is also a problem session available and the TA has courses and research work to do as well.

**Grading Policies**

Four elements figure into the primary (numerical) grade: homework and three exams (equal weight

---

1 We start with the theory of the firm because it allows us to learn some important ideas (primarily results from optimization theory and duality) before we engage with more complex topics which crop up in consumer theory (e.g., preferences and utility).
for each element). The course grade then depends upon the numerical grade and whether that reflects a meaningful and significant upward trend over the course, which can result in a higher letter grade than the numerical grade suggests.

Homework will be assigned approximately every two weeks (adjusting for exams and breaks), sometimes on Mondays and sometimes on Wednesdays, and is due in class as shown on the schedule below and as specified on the assignment. Homework Assignments will be posted as a PDF in a folder on our class Blackboard website labeled "Homework Assignments and Solution Sets" which will also be where we post solutions to the homework problems. Students are encouraged to work in groups on the homework (between two and four people at max), and to submit one homework for the group with all group members' names on it, alphabetical by last name. Homework counts for 25% of the grade. Homework handed in late will be reviewed by the grader, but will receive zero points, since solution sets will be posted as homework comes in (that is, on the due date). As it makes grading more difficult, no student can hand in multiple submissions (e.g., doing some problems on their own and some with a group), so either be in a group for a homework, or do all work for that assignment on your own. You can change groups from homework set to homework set.

**NOTE:** You are not to seek help on homework from students who have previously taken this course (other than the TA); doing so is a violation of the honor code and can result in an F for the course. If you feel you are in need of a tutor, see me about this. Tutors are possible, but be aware that they cost money (yours!).

Similarly, **do not use or seek information from homeworks, tests, or materials used in previous sections of this class.** Also, **do not use "answer keys" that you may have come across (e.g., on the Web), as this is a violation as well.** Handing in work that you purport to be yours, but comes from one of the above named sources is a form of plagiarism, so be forewarned. Interestingly, most answer keys have errors. Homework is a way to sharpen your understanding and find holes in what you know; it is also good practice for the exams, so do not defeat it by cutting corners. Thus, do all the problems, even if you are in a group. Don’t free ride on the solutions your group members develop - if you don’t understand someone else’s explanation, work on it until you do.

There will be three exams (including the final), one on each sub-section (firm, consumer, markets). Each exam will count 25% of the grade. The last exam will be started at the normal time for the course final exam (see below); the other two exams will be given in the evening and will have dates fixed in class. Check the schedule carefully; don't make plans to leave early as there will be no alternative exams provided. Exams I and II are given in the evening (so as not to limit the schedule) and are three hours in length each. Exam III is the final and we will seek to have a three-hour slot for it as well (i.e., extend the assigned slot by an hour). I try to make sure that the schedule is such that the exam is not covering highly recent material (e.g., what was covered the day before).

**Tentative Schedule**
As stated above, the sequence of topics follows Varian (particularly relevant corresponding material in MWG follow in parentheses); dates are approximate and subject to random (but generally
announced) revision! Three Extra classes are scheduled for select Fridays, but may be re-assigned as problem sessions (or cancelled) if we do not need them for new material. Two of these are scheduled as close to the exams as I could make them, and they allow us to include time in the schedule to summarize what material to cover for the exams.

Aug 26 - Sept 9: Chapter 1 (MWG: Ch. 5.B; you might also find pp. 154-160 of interest) HW #1 assigned Aug 26, due Sept 9.

Aug 28: Extra class in place of Problem Session.

Sept 9 - Sept 23: Chapters 2, 3 (MWG: pp. 135-139) HW #2 assigned Sept 9, due Sept 28.

Sept 28 - Oct 7: Chapters 4, 5 (MWG: pp. 139-147) HW #3 assigned Sept 23, due NLT 3 PM, Oct 9 in my mailbox in CL 415 (note that this is a Friday).

Oct 2: Extra class in place of Problem Session.


Oct 13: EXAM I (at night, 6 pm - 9 pm; CL 209).


Oct 19 - Nov 4: Chapters 7, 8 (MWG: Ch 2, 3) HW #4 assigned Oct 14, due Nov 4.

Nov 4 - Nov 9: Chapter 9, 10 (MWG: Ch 2, 3, 4) HW #5 assigned Nov 4, due NLT 3 PM, Nov 13 in my mailbox in CL 415 (note that this is a Friday).

Nov 6: Extra class in place of Problem Session.

Nov 17: EXAM II (at night, 6 pm - 9 pm; CL 209).

Nov 11 - Nov 30: Chapter 11 (MWG: Ch 6.C, 6.D) HW #6 assigned Nov 18, due Dec 11. Note: due date is the Friday immediately after classes end; HW due in my mailbox in CL 415 NLT noon.

Nov 21 - 29: Thanksgiving Break.


Dec 18: EXAM III (FINAL EXAM): Friday, 9 am - noon; NOTE: THERE IS NO ALTERNATIVE FINAL.