

Econ 303 - Intermediate Microeconomic Theory

This course develops the tools necessary to analyze the decisions made by consumers and firms. Consumer theory topics will include preferences, utility, optimal consumption under a budget constraint and aggregate demand. On the producer side, we will cover profit maximization, cost minimization, perfect competition, monopolies and oligopolies. Concepts of equilibrium, externalities, efficiency and social welfare will also be covered.

By the end of the course, students should (1) have a solid command of the standard terminology of microeconomics, (2) be able to explain the economic intuition behind algebraic and graphical representations of consumer and firm behavior, (3) be able to translate descriptions of consumer and firm decision making into both equations and graphs, and (4) be able to solve for optimal consumer and firm choices under a variety of constraints.

Requirements

Students should have completed Econ 101 or 151. I will assume a basic vocabulary of economic terms and concepts. I will describe how to approach certain problems using calculus but will not assume you have a background in calculus. In situations on problem sets or exams where calculus may be helpful, I will provide assistance with taking derivatives or integrals.

Grading

Grades for the class will be based on problem sets, two midterms and a final, weighted as follows:

Problem Sets:	10%
Midterm 1 (February 27):	30%
Midterm 2 (April 4):	30%
Final Exam (May 14, 2pm - 5pm):	30%

The exams will all be a combination of short answer questions and numerical or graphing problems designed to evaluate your comprehension of the lectures, your ability to work with the analytical tools and models presented in class, and your ability to think critically about the issues presented in class. Exams, including the final, will not be cumulative except to the extent that earlier material is required to work with material presented since the previous exam. Examples of past exams with solutions are posted on [Blackboard](#) and available through my [practice exam generator](#).

There are no makeup exams or alternate times for taking exams. If you are unable to take a midterm for any reason, an average of your other two exam scores will be used to replace the missing exam

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score. This is done by averaging your rank in the class distributions for the two exams you took and then assigning you the grade that corresponds to this average rank in the distribution of the exam you missed. If you miss both midterms, you will be assigned the lowest score in the class for the second midterm. An average of this score and your final exam score will be used to replace the missing first midterm score. The final exam is mandatory and must be taken at the scheduled time. Please refer to the College's policies for rescheduling missed final exams if you are unable to attend the final exam due to an emergency.

Numerical cutoffs for letter grades are the following: A (92-100), A- (90-91.99), B+ (87-89.99), B (83-86.99), B- (80-82.99), C+ (77-79.99), C (73-76.99), C- (70-72.99), D (60-69.99), F (below 60). These cutoffs will be applied to your overall numerical course grade, calculated from the numerical scores on individual exams and assignments using the weights given above. As noted in the cutoffs, numerical grades up to the second decimal are used for determining the letter grade. There will be no rounding up or down to the nearest whole number.

While the numerical cutoffs above are the default I use for assigning letter grades, I will adjust the cutoffs downward if the distribution of letter grades is significantly lower than that of a typical grade distribution for economics courses at William & Mary. These adjustments will be made at the end of the semester based on the class distribution of overall numerical scores. If an adjustment is warranted, I will post the adjusted grade cutoffs when posting your final course grades to Blackboard. Note that I will not adjust the cutoffs upward; if the class performs unusually well I am happy to assign unusually high grades. When returning each midterm, I will tell you how I would adjust letter grade cutoffs if I were to base them just on that midterm. This is done to give you a sense of where you stand. However, note that it is still your numerical score that gets used when calculating your overall grade for the course. Consequently, there is little difference between being just below or just above one of these cutoffs.

When any graded work is returned you will be given relevant statistics about the class distribution of numerical scores. You have one week after any graded material is returned to raise any issues about the grading. After that week, the grade will be considered final.

Readings

The text for the course will be *Intermediate Microeconomics: A Modern Approach* by Hal Varian. The current version of the book is the ninth edition but you should feel free to use an earlier, cheaper version of the textbook. Chapter numbers differ across editions but the text of the chapters we cover remains the same. In addition to the textbook, there may be additional materials posted on the course website. While the textbook is recommended, it is not required. In theory, if you follow and fully understand everything in lecture, you could successfully complete all of the problem set and exam

questions. However, in practice, the textbook can be quite useful both to review lecture material and see that material presented in a different, and perhaps more effective, way.

Problem Sets

There will be four graded problem sets assigned during the semester (I will also post additional ungraded problem sets). These problem sets are intended to help you develop the analytical skills presented in class. You are welcome to work in groups on the problem sets but every person must write up his or her own solutions. This does not mean turning in multiple copies of the same solutions. Learning how to formulate your own solutions and explanations is a valuable component of the problem sets.

Problem sets will be graded on a three point scale. Three points will be awarded when all problems are completed and the solutions are generally correct aside from minor mistakes. Two points will be awarded when a problem set clearly shows effort on all of the problems but the wrong path was taken on one or two questions. One point will be awarded when a problem set is incomplete or otherwise shows a lack of effort. Zero points will be given for problem sets that are not turned in on time. No late problem sets will be accepted as solutions for each problem set will be posted immediately after the problem sets are due.

In addition to the problem sets, I will provide past exam problems that correspond to each lecture topic. Working through these problems is entirely optional but highly recommended. They offer an excellent way to reinforce the recent lecture material and provide valuable practice for the midterms and final. They also give you a chance to gauge your grasp of the material and level of preparation for the exams.

Important Dates

Date	Assignment
February 2	Add/drop deadline
February 27	Midterm 1
March 25	Withdraw deadline
April 4	Midterm 2
May 14	Final Exam (2pm - 5pm)

Office Hours

One effective way of doing well in this class is attending office hours. Office hours are a great opportunity to review concepts from class that did not click the first time through. I am happy to walk through your lecture notes with you, discussing anything that was unclear and providing alternative explanations if helpful (a different graph, an additional example, etc.). Each lecture's material tends to build on the concepts from previous lectures; it is important to clear up any questions right away. Another way to use office hours is to work through problems. You are welcome to come in with questions on the current problem set if you find yourself getting stuck. I also recommend using office hours as a chance to work through past exam questions with my help.

For Econ 303, my office hours are often a group endeavor, with multiple students in attendance. Students often find the answers to their classmates' questions just as helpful as the answer to the question that originally brought them to office hours. Do not be shy about attending whether you have a small question, a big question, or even if you just want to listen in as I work through the material with your classmates.

Working Around COVID-19

We find ourselves in unusual times. Many aspects of our class may be impacted by both measures to control the spread of COVID-19 and by the direct impacts of COVID-19 on students who need to quarantine, suffer effects of the virus, or have family and friends impacted by the virus. First and foremost, I want you to know that I am here to support you and find ways to help you succeed in the course despite any COVID-19 disruptions. Should you have any concerns at all related to your ability to participate in this class, please do not hesitate to reach out to me. We will work to figure out a personalized plan that will allow you get the most out of this course while prioritizing your health and the health of your family.

Should the policies for in-person classes change, I will adapt our class as quickly as possible. I will communicate any needed changes to the class both in class and by email. While I look forward to teaching all of you in person, I am confident that we will have a productive semester even if we have to change modalities.

Accommodations

Any student who feels they may need an accommodation based on the impact of a learning, psychiatric, physical, or chronic health diagnosis should contact Student Accessibility Services (SAS) staff at 757-221-2512 or at sas@wm.edu to determine if accommodations are warranted and to obtain an official

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letter of accommodation. For more information, please see the SAS [website](#). I am happy to work with you to find the best way to implement accommodations to make your time in this class as successful and rewarding as possible.

Honor Code

You are expected to follow the William & Mary Honor Code. Be particularly careful to acknowledge your classmates when you work in groups on problem sets and remember that even when working in groups, you must write up your own solutions. Copying another group member's solutions or copying solutions from an answer key constitute honor code violations. If you have any questions about how the Honor Code relates to this course, feel free to talk to me or refer to the [Student Handbook](#) and the William & Mary Honor Council's [website](#).

Outline of Course

Below is the general outline we will follow. The chapters numbers refer to the relevant chapters in the 9th edition of *Intermediate Microeconomics* by Hal Varian. Note that more recent editions may have different chapter numbers, so go by the chapter title. I will update you at the beginning of each lecture with where we are in the outline and what we will cover over the next two to three lectures.

I. Introduction - The Market (*Chapter 1*)

II. The Consumer

- Preferences (*Chapter 3*)
- Utility (*Chapter 4*)
- Budget Constraints (*Chapter 2*)
- Choice (*Chapter 5*)
- Demand (*Chapter 6*)
- Income and Substitution Effects (*Chapter 8*)

III. Market Equilibrium

- Consumer Surplus (*Chapter 14*)
- Market Demand (*Chapter 15*)
- Equilibrium (*Chapter 16*)

IV. The Firm

- Technology (*Chapter 19*)
- Profit Maximization (*Chapter 20*)
- Cost Minimization (*Chapter 21*)
- Cost Curves (*Chapter 22*)
- Firm Supply (*Chapter 23*)
- Industry Supply (*Chapter 24*)

V. Market Imperfections

- Monopoly (*Chapter 25-26*)

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- Oligopoly (*Chapter 28*)
- Externalities (*Chapter 35*)
- Public Goods (*Chapter 37*)