



ECON 3010 – Intermediate Microeconomics Spring 2023

Time: Monday/Wednesday, 2:00 – 3:15 pm and 3:30 – 4:45 pm
Location: Wilson Hall 301

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Office Hours: Monday, 5:00-6:00 pm

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This syllabus is long, but it clearly lays out the expectations and requirements for the class in detail. It is your responsibility to read through the syllabus completely before the class begins, and ensure that you are able to complete the course requirements.

UVA Canvas: As you are likely aware, UVA is transitioning from Collab to Canvas. Not all departments will transition at the same time. Economics is one of the departments that will make the transition for the Spring 2023 Semester. Thus, we will be using Canvas for our class this term.

Course Description

Microeconomic theory is the study of models economists use to describe how agents (consumers, firms, governments, etc.) make decisions and how these decisions affect market outcomes and welfare. We begin by analyzing how consumers and firms make optimal decisions given the budgetary and physical/technological constraints they face. We then study how these decisions by individuals translate into competitive market equilibria, and look at the conditions under which the “invisible hand” of the market optimizes welfare.

The second half of the class discusses deviations from the competitive ideal. We look at important sources of market failures, including externalities, market power (monopolies), and asymmetric information. An important tool for economists in analyzing such situations where strategic interactions between people influences outcomes is game theory. The last section of the course will be a basic introduction to game theory and its applications in economics, including imperfectly competitive markets (e.g., oligopolies), public goods, and principal-agent problems.

The course is designed to provide a rigorous introduction to the tools that underly nearly all economic analysis, including many of the upper level applied courses you will take in the future. Many students find this course to be one of the most difficult and time-consuming courses of the major. The best way to succeed in the course is not to fall behind, and to solve problems. This is a problem-solving course, and the homework is designed to allow you to practice your problem solving skills. The questions on the exams will be in a style similar to those found on the homework. If you only read over the textbook and/or lecture notes, I can guarantee that you will not succeed in this course. The textbook and the Pearson MyLab resource (see below) are filled with many more problems than what will be assigned, and I strongly encourage you to use them to practice problem solving and better understand the material.

On the use of mathematics: The course will introduce you to the key tools used in modern economics to explain behavior at the microeconomic level. These tools are often mathematical in nature, and include graphs, algebra, and calculus. The formal prerequisite is Math 1220 (derivatives in particular will be used extensively), but an equally, if not more, important informal prerequisite is comfortability in quickly understanding and drawing graphs and manipulating algebraic expressions. At the same time, the use of math should not obscure from the economics. The focus of the course will be on learning how to analyze a problem economically, and developing your reasoning and problem-solving skills, not blindly applying mathematical formulae. To succeed in the course, you should be comfortable enough with the math (e.g., the material covered in Math 1210/1220) that it operates “in the background” so we can focus on learning the economics.

Textbook

There is no required textbook for the class. Everything will be self-contained in the lectures, and so you should be able to learn everything just by coming to class and working through the problem sets. However, a textbook can be a helpful secondary reference. Any intermediate microeconomics textbook would work fine, but the one that we will follow mostly closely is

Jeffrey M. Perloff, *Microeconomics: Theory and Applications with Calculus*, 5th edition

You can find this for sale at the bookstore. Used versions and older editions that you may be able to find online should be perfectly adequate.

Pearson MyLab

With the textbook, you can also purchase a code to access Pearson MyLab. This is an online resource with thousands of microeconomics problems that you can work through. Solving problems is key to learning the material of this course. I will assign separate homework assignments that you can work on in groups, but if you are in search of more practice, Pearson MyLab can be a useful resource. Throughout the semester, I will provide a list of problems that you can go through to check your understanding. These assignments are **optional** (they will not be included in your course grade), but they can be extremely useful as a way to learn the material, and I strongly encourage you to use them.

If you choose to use this resource, you may “enroll” in our class by going to the following website and entering the given CourseID:

Pearson MyLab Website: <https://mlm.pearson.com/northamerica/>
Course ID: troyan37016

You can either purchase an access code with the textbook, or purchase it separately at the website above.

Discussion Sections

You should have enrolled in one of the discussion sections on Thursdays or Fridays. The discussion sections are an important part of the course, because they will be focused on showing how to set up and solve problems. They will cover both problem set questions and go over additional problems that were not assigned. In addition, they will give you an opportunity to ask any questions you may have about the material.

Grading

Your grade is based on attendance, homework assignments, and three (non-cumulative) exams.

Exam 1 (Feb 22nd)	28.33%
Exam 2 (Mar 29)	28.33%
Exam 3 (May 1)	28.33%
Assignments	15% (lowest score will be dropped)

Please note that letter grades will not be determined until the entire course is completed. Individual exams will not have letter grades assigned to them.

Assignments

There will be (roughly) 8 problem sets assigned throughout the course. For the problem sets, you may work with a group of up to 3 members. Each group can turn in one submission for all members. You are not required to work in a group, but I strongly recommend it. You can find your own group, or, during the first week of class, I will send out an email for those who would like to be assigned a group.

While I think groupwork is useful because you will learn a lot from your peers, it is still in your interest to learn how to solve the problems, and not simply copy solutions from a classmate. Free-riding on your group mates is a violation of the Honor Code. ***Further, I cannot overemphasize the importance of completing and understanding the problem sets to your success in the course.*** The goal of the course is for you to learn to think and reason like an economist, and the best way of doing that is by solving many problems. Learning how to apply the concepts of the course to unfamiliar problems takes practice. The exam questions will be similar in style to the problem sets, so if you do not take the time to do the problem sets yourself, you almost certainly will not do well on the exam.

As further encouragement to actually understand the homework problems and not free ride off of your group members, one question on each exam will be “eerily similar” to a homework problem.

Gradescope

We will be using Gradescope to submit your homework assignments. **Make sure to access Gradescope via Canvas. Gradescope may allow you to register independently through their website, but if you do not go through Canvas, your grades will not be linked to the Canvas Gradebook, which is the basis for your final course grade.**

Problem sets will be posted to Gradescope for download. Once you have your solutions, you can either type them up, or *neatly* hand-write them. You can then either scan them, or use a scanning app on your phone to get a pdf file of your solutions. You can then log back into Gradescope and upload your solutions. When doing so, you will assign each page of your document to the associated question.

Each group only needs to upload one pdf. Gradescope will allow the person who uploads it to select their group members.

There is an instructional pdf on Canvas that provides a walk-through of how to submit an assignment.

Exams

There will be three exams, on the following dates:

Exam 1	Wednesday, February 22 nd
Exam 2	Wednesday, March 29 th
Exam 3	Monday, May 1st

All exams will be taken during your scheduled class period. Note that the third exam is on the last day of regular classes. There is no exam during finals week.

Strictly speaking, exams are non-cumulative, and will only cover material since the previous exam. However, the material in the class builds on itself, and so, understanding earlier material will be absolutely essential to fully understand the later material. For that reason, the first 2-3 weeks of the class are by far the most important, and I strongly suggest you do not fall behind.

Exams will be closed book and closed notes. The exams will mainly ask you to solve problems (similar to those found on the homework), with potentially some short-answer questions as well. They will test your ability to set up, analyze, and solve problems by applying the economic and mathematical tools developed in the course, not your ability to memorize facts, figures, or definitions.

Exams will be pledged.

Missed Exams

If you have to miss an exam for a valid reason (hospitalization, serious illness, death in the family, important religious holidays, and authorized university activities), there will be a **cumulative** final exam on **Sunday, May 7th (time TBD)**. You may use this exam as a replacement for the grade on the exam that was missed. Note that this exam is longer and **will cover the entire course**, unlike the other (non-cumulative) exams.

If you need to miss an exam, you must tell me as soon as possible **before exam day** with the reason you cannot take it. If you do not do this, you will not be allowed to take the make-up final, and will receive a zero for the missed exam.

Class discussion and feedback

All official class announcements (regarding assignments, exams, changes to the syllabus, etc.) will be made via Canvas. All other discussion related to the class will be done via Piazza. Rather than emailing me or the TA your questions about the material, problem sets, or even course logistics, you should post them to Piazza.

I generally will not respond to emails asking about class material, and instead will direct you to post your question on Piazza. This is not to be rude, but is for efficiency purposes: by having everything in one location, the entire class can benefit from the discussion (a “positive externality” in econ jargon). In addition, your question may already have been asked, in which case you can find the answer immediately.

You can access the Piazza page for our class directly in Canvas, or using this direct link:

<https://piazza.com/virginia/spring2023/11416/home>

Course Outline

The outline of topics is extremely tentative and subject to change. The stars (**) indicate topics where we will depart more substantially from the textbook. The assigned readings will still be helpful, but be sure to study the class notes as well. The assigned readings make reference to the 5th edition of the textbook; all of the material is present in older editions, but some of the references might be slightly misaligned.

Date	Topics	Associated Reading (Perloff, 5 th ed.)
Jan 18	Logistics, Math Review	
Jan 23, 25	Preferences; utility functions; indifference curves	3.1-3.2
Jan 30, Feb 1	Marginal rates of substitution; budget sets; constrained choice	3.3-3.4
Feb 6, 8	Demand curves; comparative statics; income and substitution effects; labor supply	4.1-4.3; 5.4
Feb 13	Consumer welfare and policy analysis	5.1-5.3
Feb 15	Production and supply	6.2-6.5, 7.3
Feb 20	NO CLASS	
Feb 22	EXAM 1	
Feb 27	Perfect competition	9.2-9.5
Mar 1	General equilibrium	10.1-10.3**
Mar 6, 8	Spring Break	
Mar 13, 15	General equilibrium, cont'd	10.1-10.3**
Mar 20	Monopoly	11.1-11.5

Mar 22, 27	Externalities and public goods	17.1-17.3; 17.5-17.6**
Mar 29	EXAM 2	
Apr 3, Apr 5	Game theory: strategies, best responses, Nash equilibria	13.1-13.2**
Apr 10	Auctions	13.3**
Apr 12, 17	Oligopoly	14.3-14.5
Apr 19, 24	Asymmetric information and moral hazard	18.1-18.4, 19.1-19.3**
Apr 26	Buffer class/Review	
May 1	Exam 3	