

Econ 50 Syllabus

Stanford University, Fall 2019

Please read this document carefully.

It describes important course policies and deadlines, and I will assume that you are familiar with them.

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**Course
Overview
and Objectives**

The fundamental assumption of traditional microeconomic analysis is that when individuals and firms make economic decisions, they are solving a constrained optimization problem: that is, they are trying to maximize something (like profits or happiness) but are limited in the actions they can take due to resource constraints (like a fixed budget or workforce). This course will introduce you to the way economists approach modeling these kinds of decisions, and give you practice with the kind of models that will be used throughout the economics major.

The course revolves around a “deep dive” behind the demand and supply curves you studied in Econ 1. In the first part of the course we will derive the demand curve from the “first principles” of a consumer choosing how to spend their money. We will then shift to firms, analyzing how they buy inputs and sell outputs. Finally, we will examine competitive equilibrium, comparative advantage, and the gains from trade.

The analytical approach of Econ 50 will be much more mathematical than what you have seen previously in Econ 1. Because of the importance of “marginal” reasoning in microeconomics, we will make frequent use of differential calculus. There is a beauty, and also a danger, in the elegance of these mathematical models. We will spend a good deal of time discussing the pros and cons of this analytical approach.

Economics 50 is the first course in the Econ 50 series, a year-long survey of intermediate microeconomics and macroeconomics. In Econ 51, the same utility-maximizing consumers and profit-maximizing firms are placed in a variety of new and more complex environments, with differing notions of equilibrium. The theories of consumer and producer behavior we develop in Econ 50 will also provide the microeconomic foundations of the macroeconomic models covered in Econ 52, as well as the other theoretical models you will see throughout your studies of economics.

Readings

The required textbook for the class is Varian, *Intermediate Microeconomics*. Any edition will do; older editions are available online for under \$10. Copies will be available on reserve in the library.

I will post slides and notes online; however, these will not include all of the information covered in class, since a lot will be done on the board. Therefore, the notes you take during class will serve as your single best resource in preparing for exams and homework assignments. *Please note that since many of my slides contain interactivity, they cannot be printed out.*

**Course Lecture
Schedule**
(subject to
revision)

Date	Subject	Chapter(s) in Varian
PART I: UTILITY MAXIMIZATION		
Tues 9/24	Welcome; Review of Econ 1	
Thurs 9/26	Scarcity and Choice	Budget Constraint, Preferences
Tues 10/1	Preferences and Utility	Preferences, Utility
Thurs 10/3	Optimal Choice I: The Smooth Case	Choice
Tues 10/8	Optimal Choice II: Kinks and Corners	<i>Notes</i>
Thurs 10/10	Demand and Offer Curves	Demand
Tues 10/15	Income and Substitution Effects	Slutsky Equation
PART II: COST MINIMIZATION		
Thurs 10/17	Cost Minimization	<i>Notes</i>
Tues 10/22	Consumer's Surplus, Welfare Analysis	Consumer's Surplus
Thurs 10/24	Cost Minimization for Firms	Technology; Cost Minimization
Tues 10/29	<i>Midterm Exam (in class)</i>	-
PART III: PROFIT MAXIMIZATION		
Thurs 10/31	Production Functions and Cost Curves	Technology; Cost Curves
Tues 11/5	Competitive Supply	Firm Supply
Thurs 11/7	Market Power and Elasticity	Monopoly; Market Demand
Tues 11/12	Input Demands	Profit Maximization
PART IV: EQUILIBRIUM		
Thurs 11/14	Market Demand & Supply	Market Demand; Industry Supply
Tues 11/19	Partial Equilibrium	Equilibrium
Thurs 11/21	General Equilibrium	Production
Tues 12/3	Comparative Advantage	Production
Thurs 12/5	Review and Preview	<i>Notes</i>
Fri 12/13	<i>Final Exam, 12:15-3:15pm</i>	

Prerequisites

Success in Econ 50 relies on a familiarity with economics and fluency with quantitative and graphical analysis. The econ prerequisite for Econ 50 is Econ 1 or 1V. The math prerequisite may be satisfied with Math 51, Math 51A, CME100, or CME100A. Axess is programmed such that you will not be able to register in Econ 50 until you have completed the prerequisites. If you have satisfied them by transfer credit, rather than by courses taken at Stanford, please contact Joanne DeMarchena (jdemar@stanford.edu) in the Economics Department Academic Office for an Axess registration code.

Classes

Lectures will be held in Hewlett 201 Tuesdays and Thursdays from 11:30am-1:20pm. There will also be some additional meetings for review before the midterm and final exams. It is very important that you attend all classes, particularly since the emphasis I place on topics in class often differs from that in the textbook.

Laptops and even iPads are a terrible way to take notes in an econ class, and phones are incredibly distracting for both me and your fellow students; so **I have a strict no-electronics policy during lecture.**

Sections are geared toward understanding the procedural aspects of the course; they're a great opportunity for you to work in groups and with your TA on building the skills you need to solve a wide range of problems. **Section selections transfer from Axess, so please register for your preferred section there.** If you need to change sections after registering, please let me know and we'll do our best to accommodate you.

Course Websites

The Canvas site is <https://canvas.stanford.edu/courses/105436/>. Use <https://piazza.com/stanford/fall2019/econ50> to ask and answer questions. You may choose to be anonymous to students, but not to me. Lecture slides are posted on <https://slides.com/chrismakler>. Interactive graphs and notes are at <https://www.econgraphs.org>.

Other Resources

This is a challenging course. If you keep up with the material, it can be extremely rewarding. However, if you fall behind, it can be very difficult to catch up, especially because of the cumulative nature of the course.

Please make extensive use of office hours and ask questions in class to make sure you're keeping up and not getting lost. You may also wish to take advantage of VPTL peer tutoring and other study resources on campus. If you find yourself struggling, please reach out to me or your TA and we'll be happy to help you create a plan to achieve your goals.

Grading

Your final numerical average will be calculated based on your performance on online homework, written homework assignments, the midterm, and the final exam, in order of increasing importance. Specific letter grades will never be assigned to individual assignments or exams. Your letter grade will reflect your overall performance in this class.

Online Quizzes
(5% of grade)

The purpose of the online quizzes is preparation. Two hours of lecture in this class can feel overwhelming if you get lost, so it's important that you do the reading before class. Previous students told me that having these quizzes helps to give them the incentive they need to come to class prepared and avoid getting lost. Quizzes are short, relatively easy, and due 15 minutes before each lecture. They are graded for **correctness**, not just completion. **Late quizzes will not be accepted**, but the lowest three scores will be dropped.

Problem Sets
(20% of grade)

The purpose of written problem sets is practice. The exams for this class are something you train for, not something you cram for; and the homework exercises are your training. For your own sake, do not cheat on your homework; it's like cheating on doing push-ups. Don't use old solution sets that may be floating around, or copy off friends. Uploading others' work as your own is a violation of University policy.

There will be **one problem set for each lecture**. Please upload your problem set to Canvas as a single PDF file. Each problem set has exercises that extend and reinforce that lecture's concepts. Some will also include old exam questions based on those concepts. **The exercises are required; the old exam questions are optional but will help your grade.**

Each exercise or old exam question will generally receive a grade of 1-3 points. Homework points are cumulative. Full credit is given for 100 total points (an average of approximately 6 points per problem set): that is, if you get less than 100 points, it will hurt your grade, but getting more than 100 points won't help your grade—except it will, as you'll do better on exams. *Protip: try at least one old exam question on each problem set to avoid coming up short on points at the end of the quarter!*

Note that Canvas lists the due time of most problem sets as 11:59pm. Solutions will be posted at 8am the next morning so you can quickly see how you did and correct any misunderstandings. **No homework submitted after solutions have been posted will be accepted under any circumstances.** However, since homework points are cumulative, if you miss one assignment just do more optional work on another.

For this quarter only, you may also earn some homework points by attending an Econ 5 lecture and writing an essay about it; details TBA.

Midterm
(30% of grade)
October 29, in
class

The purpose of the midterm is diagnostic. If Econ 50 were a sport, the quizzes would be warmup, the problem sets would be practice, and the midterm would be a regular season game. Just as competition reveals weaknesses that you didn't experience in practice, the midterm reveals gaps in your understanding that aren't apparent until you try to solve problems on your own, in a timed setting, without friends or notes or the book. If you do less well on the midterm than you hoped, it's a great idea to go over your midterm with me or your TA to develop a strategy for succeeding in the second half of the course (and on the final exam).

Final Exam
(45% of grade)
December 13,
12:15-3:15pm

The purpose of the final exam is evaluative. If the midterm is a regular season game, the final is the championship. This is where you have the opportunity to show off your knowledge of this material and your preparation to move on to more advanced courses. For that reason it's the bulk of your grade. However, don't think you can just cram for the final to succeed in the course: just like you can't get good at a sport in the 48 hours before the championship, you can't ace on the final if you haven't consistently kept up with your coursework.

Due to the cumulative nature of the course, if you do better on the final than on the midterm, your final grade will count for 75% of your grade. Fundamentally, I care *that* you master the material, not *when*.

IMPORTANT NOTES

1. As of Fall 2018, **a grade of B or better in this class is not a requirement to declare Econ as your major.** However, earning a grade of B or better in this class is a good indication that you are ready to proceed to Econ 51 and the rest of the Econ major. If you earn a grade lower than a B in this class and do want to declare, please see me so we can set up a strategy for you to succeed. Many students who struggle in Econ 50 find that repeating the course helps them get a stronger grip on the material.
2. To facilitate free and open discussion during class, and to protect your privacy and the privacy of the teaching staff, **audio or video recording of lectures, sections, or office hours is strictly prohibited.** Additionally, please do not post any materials from Canvas online, especially solutions. If you would like to share these materials outside of the class (e.g., with your high school Econ teacher) please ask me. You are of course welcome to link to any publicly accessible material on econgraphs.org and slides.com.
3. I do try to keep class light, and from time to time will include puns, stories, pop culture references, movie clips, and the like in an effort to make the class more fun for everyone. My intention is never to be offensive, but misstatements and unintentional offense can happen. If something I say, do, or write ever bothers you, *please* let me know quickly so that I can correct the mistake, apologize, and, most importantly, avoid the offensive behavior in the future. Thank you.

Names and Pronouns

If we use incorrect names or pronouns, please correct us immediately. It is our intention that every student is referred to as they would like to be.

Students with Documented Disabilities

Students who may need an academic accommodation based on the impact of a disability must initiate the request with the Office of Accessible Education (OAE). Professional staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is being made. Students should contact the OAE as soon as possible since timely notice is needed to coordinate accommodations. The OAE is located at 563 Salvatierra Walk (phone: 723-1066, online at <http://oae.stanford.edu>).

Stanford University Honor Code

The Stanford University Honor Code is a part of this course. It is Stanford's statement on academic integrity first written by Stanford students in 1921. It articulates university expectations of students and faculty in establishing and maintaining the highest standards in academic work. It is agreed to by every student who enrolls and by every instructor who accepts appointment at Stanford. The Honor Code states:

1. The Honor Code is an undertaking of the students, individually and collectively
 1. that they will not give or receive aid in examinations; that they will not give or receive unpermitted aid in class work, in the preparation of reports, or in any other work that is to be used by the instructor as the basis of grading;
 2. that they will do their share and take an active part in seeing to it that others as well as themselves uphold the spirit and letter of the Honor Code.
2. The faculty on its part manifests its confidence in the honor of its students by refraining from proctoring examinations and from taking unusual and unreasonable precautions to prevent the forms of dishonesty mentioned above. The faculty will also avoid, as far as practicable, academic procedures that create temptations to violate the Honor Code.
3. While the faculty alone has the right and obligation to set academic requirements, the students and faculty will work together to establish optimal conditions for honorable academic work.

Penalties for violation of the Honor Code can be serious (e.g., suspension, and even expulsion).

So re-read the Honor Code, understand it, and abide by it.

**Economics
Department
Common
Syllabus**

All courses taught in the Stanford Department of Economics are governed by a common set of course management rules. The Economics Common Syllabus explaining these rules is on the Economics Department website at economics.stanford.edu/undergraduate/economics-common-syllabus.

The Department does not allow me to grant exceptions to these rules.

Note in particular the following Department rules regarding exams, which are described in more precise detail in the document (*course-specific applications of these policies are in italics*):

- 1. Exam attendance at the specified time is required.** There are a few exceptions to this rule:
 - Stanford business that takes you away from campus.
Please email me ASAP if this applies to you, so we can arrange logistics well in advance.
 - Disabled students who have a letter from the OAE.
See “Students with Documented Disabilities” section above.
 - A health emergency when you are in the hospital or clinic during the time of the exam, or a death in the immediate family (parents/siblings/spouse/children).
If this occurs for the midterm, your final exam grade will count for 75% of the grade. If it occurs for the final, you may request an Incomplete as long as you have completed all the other work for the course (quizzes, problem sets, and midterm).
- 2. Students who arrive late will have less time to finish the exam;** the exam time is never extended.
Be sure to check the location of the tests beforehand so you’re not late! They’re often not held in the normal classroom due to space requirements.
- 3. Regrade requests must be submitted as a formal request to the Director of Undergraduate Studies,** and you may not discuss regrade requests with any instructor before making this request.
This policy does not apply to transcription or data entry errors in numerical grades; those you may take to the TA for immediate correction.