

Microeconomic Analysis

ECON 641
University of Maryland
Spring 2018

Instructor:	Dr. Aaron Finkle
Email:	finkle@econ.umd.edu or afinkle@umd.edu
Classroom:	1400 16th Street, suite 140.
Class Time:	Tu 6:45pm - 9:30pm with 15 minute break
Office Hours	Tuesday 6:00-6:40 or by appointment
TA:	Shanxiao Wang (Shanny)
TA Email:	WangS@econ.umd.edu
TA Office Hours	Monday or Tuesday each week from 5:15-6:45 (see ELMS)

1 Overview

This course covers microeconomic analysis applied to public policy problems with an emphasis on practical examples and how they illustrate microeconomic theories. Policy issues such as pollution, welfare and income distribution, market design, industry regulation, price controls, tax policy, and health insurance are used to illustrate the abstract principles of microeconomics.

Students will master microeconomic theory at a level of mathematical rigor befitting a professional master's program in applied economics. The level of mathematical rigor will be higher than in a typical undergraduate intermediate microeconomics course, but much lower than in the first year of a "top 40" economics PhD program like the University of Maryland's. We will make extensive use of differential calculus. Students will apply microeconomic theory to a broad range of questions relevant to public policy.

1.1 Website

Copies of the course syllabus, your grades, and other relevant links and documents will be posted on the course's ELMS/Canvas website. You can access the site via www.elms.umd.edu. You will need to use your University of Maryland "directory ID" and password. I will make use of the ELMS page for class notes, announcements, chapter assignments, and for assigning and collecting problem sets.

1.2 Email

Email is the primary means of communication outside the classroom, and I will use it to inform you of important announcements. Students are responsible for updating their current email address via www.testudo.umd.edu/apps/saddr/ AND for paying attention to messages I send to the class via ELMS. Failure to check email, errors in forwarding email, and returned email due to "mailbox full" or "user unknown" will not excuse a student from missing announcements or deadlines. I will do my best to respond to email within 36 hours.

1.3 Work Load

Mastering the material covered in this course requires a significant amount of work outside of class. Students should expect to spend more time outside of class than in class – typically at least twice as much time.

1.4 Prerequisites

Admission to the Master of Professional Studies in Applied Economics program. Note: The program admissions requirements include a grade of at least B in an introductory microeconomics course and a grade of at least B- in an introductory calculus course.

2 Required Text and Supplementary Material

The required text for this course is:

- Hal Varian, *Intermediate Microeconomics with Calculus a Modern Approach*, W.W. Norton, 2014. ISBN: 978-0-393-92394-0

It is important you buy the version that has “**with Calculus**” in the title.

A good (free) supplement for additional sample problems:

- Ted Bergstrom and Hal Varian, *Workouts in Microeconomic Theory* (online)
www.econ.ucsb.edu/~tedb/Courses/GraduateTheoryUCSB/workouts.pdf

Another useful online resource for review of Calculus is Kahn Academy

- Tutorial on Differential Calculus
www.khanacademy.org/math/differential-calculus
- Applications “Skill Check” on Optimization
www.khanacademy.org/math/differential-calculus/derivative-applications

Additionally, presentations during the semester will cover applications from the following textbook:

- Walter Nicholson and Christopher Snyder, *Intermediate Microeconomics and Its Application*. Cengage Learning; 12th edition (1133189024).

I will provide access to applications from Nicholson and Snyder.

3 Course Objectives

The program has 7 general learning outcomes for students:

1. Ability to understand, evaluate and analyze economic data
2. Ability to understand and interpret statistical evidence from economic data
3. Ability to apply empirical evidence to assessing economic arguments
4. Ability to apply macroeconomic theories to policy discussions

5. Ability to apply microeconomic theories to policy discussions
6. Ability to communicate economic ideas to a broader audience
7. Ability to evaluate the effectiveness of policy programs using sound economic techniques

The learning outcomes that pertain to ECON 641 are outcomes 5, 6, and 7.

4 Course Grading and Expectations

Your grade will be calculated with the following weighting:

Requirement	% of Grade
1. Final Exam	30%
2. Problem Sets	40%
3. Quiz	10%
4. Presentation	15%
5. Discussion (Online)	5%

4.1 Final Exam

The Final Exam will be on the last class day **5/15**. The exam will be designed to take students about 2 hours to complete, but students will have the entirety of the class time to complete the exam. The exam will consist of 3 or 4 problems similar to those on the Problem Sets but with some variations. All material covered during the semester is fair game for the final exam. The final exam is closed book, though students are permitted to use a scientific, non-programable calculator. The final exam will be graded as a percentage.

4.2 Presentations

A supplemental textbook by Nicholson and Snyder, contains more than 100 concise “Applications” of microeconomic theory. These applications are typically one-page descriptions of how the theory in that section of the book has been applied by economists in a variety of contexts. The Applications presented in the book typically cite one or two academic journal articles upon which the applied work is based. The Applications also typically suggest a couple interesting questions and/or policy challenges to think about. Students are to present the application from the textbook as well as provide additional details on at least one of the cited economics papers.

We will use the textbook Applications from Nicholson and Snyder (available in the main lounge) as the starting points for student presentations that look a bit further into the issues they raise. There will be 20-25 student presentations over 13 of the class meetings. Each student will give a presentation at some point during the semester. If fewer than 20 students enroll in the course, we will simply have fewer student presentations. This means there will be one or two student presentations scheduled for each class meeting (other than the initial meeting and final).

I will ask that students choose their presentation topic and date after the 1st class. This requires that students look ahead to the textbook Applications that will come throughout the whole semester.

Some of the presentations early in the semester will come the week after the relevant material has been covered in class. Most of the presentations, however, will come on the same day that the relevant material is being covered in class. This means that the student presenters must read ahead and prepare their presentations before sitting through my lecture on the relevant material. This is one example of the difference between graduate and undergraduate education. Our classes are seminars. That means that all members of the group share responsibility for teaching each other. I will bear more responsibility for teaching in ECON 641 than any other member of the seminar. But each of you will also bear some responsibility – especially on the day you present your Application.

Expectations for presenters:

1. The presentation should be done on PowerPoint slides. Presenters should also have a pdf version of the file.
2. The presentation should be designed to last about 10 minutes.
3. The presenter should be prepared to answer questions during the presentation
4. This grade will be based on the clarity and quality of the presentation, the presenter's ability to incorporate in my pre-presentation feedback, and also the presenter's answers to questions posed during the presentation.

Complete drafts of PowerPoint presentations are due as email attachments by 7:00 p.m. on the Sunday before your presentation. Please send them to finkle@econ.umd.edu. I will send feedback by 5:00 p.m. on Monday. You need to revise your presentation based on my feedback and send the final version to me as an email attachment by 6:00 p.m. on the day of the presentation. Student presenters should have a well-prepared presentation that lasts about 7 minutes. During these 7 minutes, the other students and I will only interrupt for brief clarifying questions.

At the end of the 7-minute presentation, I will ask each student to write a well-formulated single-sentence question for the presenter on an index card. I will give the class about 1 minute for this task. I will grade the presenter and the audience as follows: Presentations will be graded according to the criteria specified in a grading rubric posted on the course's ELMS site. The presenter will get 0-10 points for the quality of the initial presentation, and for the quality of his or her response to my question. Each student in the audience will get something between 0 and 2 points for the question on their index card. Students who have asked interesting and well-formulated questions will get 2 points. Students who ask a less interesting and/or less well formulated question will get fewer than 2 points (1 or 1.5 points, perhaps). Students who are not present for the presentation will get zero points.

4.3 Problem Sets

Students will turn in homework at the beginning of each class (except for the first class and the last class). The homework will always consist of 2 or 3 analytical problems. Problem sets are all weighted equally and assigned a point score out of 10. At the end of the semester, your two lowest scores will be dropped when calculating your problem set average.

Typically, one of the problems will relate to material covered during our previous meeting, while one of the other problems will relate to material to be covered on the day that the homework problem is due. This is intentional. This requires students to study the material on their own prior to my lecture. Undergraduate courses often claim to expect students to read the material before coming to class. Graduate courses expect students to do more than passively read the material before coming to class.

Sometimes it will be the case that a solution for one of the assigned homework problems is readily available online – even before the homework is due. This is also intentional. I'm sure you will learn a lot from studying the solution for a challenging problem. You must still write out your own version of the solution and turn it in. The person who grades the homework will also have access to the online solution. Less than full credit will be given when it is obvious that a student's work was mindlessly copied.

Students are strongly encouraged to work with each other on the homework, but each student must turn in his or her own work individually.

Problem Sets are to be hand written (or typed, but not required) and submitted electronically on ELMS. To do so, you can either scan or take clear pics and submit them to ELMS no later than the start of the class period in which they are due. The phone App for ELMS (Canvas) has a feature to photograph and directly submit your assignments, or you may just save the image to your computer and upload via a web browser (e.g., Chrome). If you have any problems submitting your assignment in this way, please let me know. In case of problems submitting, you can also bring a hard copy to class, which I recommend so we may discuss them in class.

4.4 Online Discussion

A message board will be available on ELMS. The purpose of this will be to facilitate constructive discussion in regards to the presentations. After each class I will post at least one question to a discussion board on the course's ELMS site. The question(s) will be related to that evening's presentations. Everyone in the class – including the presenter – can discuss the posted question until midnight the following Friday. Every student in the class will get something between 0 and 5 points based on my assessment of their contribution to the online discussion. (Grading rubric will be posted on the class' ELMS site.) People who do not contribute anything of merit will get zeros. People who make insightful and constructive contributions will get 5's. (People who make inappropriate contributions in the online discussion forums will have to have an in-person discussion with me.)

4.5 Quiz

There will be one in-class quiz on **4/17** at the start of class. The quiz will consist of two problems similar to the problem sets. The material for the quiz can be from anything covered prior to that class.

4.6 Attendance and Class Participation

Attendance is not mandatory, but you are responsible for catching up on any material from missed classes. This class moves quickly and it is quite easy to fall behind even from missing a single session. My teaching style relies on the feedback of students. I encourage you to utilize our class time to make clear to me what topics are worthy of particular emphasis and which items can be moved on more quickly. Your alertness and participation in class will earn you a small bump to your final grade.

To ensure an effective learning environment for the whole class, refrain from texting and non-class related computer use (checking email, etc). Please avoid disrupting other students by coming in late or leaving midway in the class. (If you must leave early, let me know in advance and sit near the door.) Laptops for note-taking are okay, but only if you restrict its use to coursework.

4.7 Grading Scale

At the end of the semester I will calculate the weighted average of each graded component of the course outlined above. I will look at the distribution of total course points across students and assign letter grades in a way that respects the ordering of numerical course grades. I will decide where to draw the lines between different letter grades according to my professional judgement.

While individual assignments will not have a letter grade, as the course makes progress, I will convey to the class how grade distributions stand up to any one date and what letter grades might be expected based on that distribution should the class have ended at that time with no commitment to that times numerical-to-letter-grade conversion holding at the end of the class (numerical score distributions may fluctuate substantially, which means that numerical-to-letter-grade conversions will vary as well depending on any one time's numerical score distribution).

5 Other Standard Policies for the Program and the University of Maryland

5.1 Workload

Mastering the material covered in this course requires a significant amount of work outside of class. Students should expect to spend more time outside of class than in class – typically at least twice as much time. The courses in our DC program are 12-week courses that cover all the same material as a traditional semester-long 3-credit course (15 weeks). The compressed schedule makes it possible to complete our degree in just 15 months if you take 2 courses each term. But the compressed schedule also implies an accelerated pace with an average of 25% more work per week in a given course ($15/12 = 1.25$). The normal full-time load in a master's program is 3 courses per semester, or 6 courses per year. The weekly work load when taking 2 of our courses per term is equivalent to the load from 2.5 "normal" 15-week courses - so $2.5/3.0=83\%$ of a full-time load. Students who take 2 courses per quarter in our program complete 8 courses per year. So over the course of a year, taking 2 courses per quarter in our program is equivalent to 133% of a full-time load ($8/6 = 1.33$).

5.2 Academic Integrity

The University of Maryland has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards applicable to all undergraduate and graduate students, and you are responsible for upholding these standards as you complete assignments and take exams in this course. Please make yourself aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information see www.studenthonorcouncil.umd.edu.

5.3 Student Conduct

Students are expected to treat each other with respect. Disruptive behavior of any kind will not be tolerated. Students who are unable to show civility to one another or myself will be referred to the Office of Student Conduct. You are expected to adhere to the Code of Student Conduct.

5.4 Excused Absences

The University of Maryland's policy on excused absences is posted here: <http://www.president.umd.edu/administration/policies/v-student-affairs/v-100g>

Please note: If you miss any class meetings for any reason, you are still responsible for all material covered during the meeting you missed. It is your responsibility – not the instructor’s – to get yourself caught up in the course. Instructors routinely facilitate things by posting lecture notes, etc.

If you need to miss an exam or other graded course requirement because of illness, injury, or some other emergency: Follow doctor’s orders and get documentation. Get in touch with the instructor as soon as you’re able – preferably prior to missing the exam or deadline. Communicate with the instructor to make up the course requirement as soon as possible. You are entitled to recover before you make up the course requirement, but you are not entitled to extra days to study beyond the time the doctor’s note says you’re incapacitated. If you are incapacitated for more than a week or so beyond the end of the term, your grade in the course will be an “Incomplete”. In such cases you must negotiate a plan with your instructor for completing the course requirements. Once you make up the course requirement the instructor will change your "I" to the appropriate letter grade.

5.5 School Closings and Delays

Information regarding official University closing and delays can be found on the campus website and the snow phone line: (301) 405-SNOW (405-7669). Since our program is an evening program in downtown Washington, DC, rather than a day program in College Park, we do not always cancel classes on the same days as the College Park campus. The program director will always announce cancellation information to the program as an announcement on the program’s ELMS/Canvas site. This will generally be done by 1:00 p.m. on days when weather or other factors are an issue.

5.6 Students with Disabilities

The University of Maryland does not discriminate based on differences in age, race, ethnicity, sex, religion, disability, sexual orientation, class, political affiliation, or national origin. Reasonable accommodations will be arranged for students with documented disabilities. Students who have an accommodations letter from the Accessibility and Disability Service (ADS) should meet with me during the first few weeks of the semester to discuss and plan for the implementation of your accommodations. If you require reasonable accommodations but have not yet registered with ADS, please contact the Accessibility and Disability Service at 301-314-7682 or adsfrontdesk@umd.edu.

5.7 Building Access

The door to the building at 1400 16th Street is unlocked on weekdays until 7:00 p.m. Students who arrive after 7:00 p.m. or on weekends will find the door locked. The building’s security guard is stationed at a desk just inside the door until 11:00 p.m. and will let you in. You can also call the phone on the security guard’s desk by dialing (202) 328-5158. If the security guard is off duty or happens to be away from his or her desk when you arrive, you can go around to the other door at 1616 P Street and pick up the black phone to the right of that door. You will be connected to the company that handles security for our building. If you tell them you are with the University of Maryland, they should ask you for a password. When you tell them the password, they will be able to unlock the door for you. You can get the password from the program coordinator, the TA, or the program director. Please note: the building security staff are not able to buzz you in at the 1400 16th Street door. You have to go around to the 1616 P Street door to be buzzed in.

5.8 Academic Progress

The graduate school requires that students maintain a GPA of at least 3.0. Students whose cumulative GPA falls below 3.0 will be placed on academic probation by the graduate school. Students on academic probation must ask the program's director to petition the graduate school if they want to remain in the program. The petition must include a plan for getting the student's GPA up to at least 3.0. Students who do not live up to their plan can have their enrollment in the program terminated without having earned the degree. Note: a grade of "B" corresponds to a GPA of 3.0. A grade of "B-" corresponds to a GPA of 2.7.

6 Schedule of Topics

Updates will be made on ELMS as needed and is subject to revision.

Week	Date	Section Topics	Chapter Readings (Varian)	Assignment
1	2/27	Competitive Market Model (supply and demand)	1, 16	
2	3/6	Utility and Optimal Choice;	2, 3, 4	PS1
3	3/13	Lagrangian Method, Derivation of Demand	5, 6	PS2
4	3/20	Slutsky Equation, Labor Supply	8, 9	PS3
5	3/27	Intertemporal Choice, Uncertainty, Consumer Welfare	10, 12, 14	PS4
6	4/3	Production and Costs	18, 20, 21	PS5
7	4/10	Profit Maximization and Competitive Supply	19, 22, 23	PS6
8	4/17	Quiz (6:45-7:45); Monopoly and Market Power	24, 25	PS7
9	4/24	Imperfect Competition and Game Theory	27, 28, 29	PS8
10	5/1	Externalities and Public Goods	34, 36	PS9
11	5/8	General Equilibrium, Welfare	31, 33	PS10
12	5/15	Final Exam		

**Supplementary readings provided online.