University of Maryland - College Park
Fall 2021

Department of Economics, Washington, DC location
Master of Science in Applied Economics

ECON 641
Microeconomic Analysis

Instructors' Contact Information and Class Logistics:

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Office Hours:	Thursdays,and by appointment via Zoom		
TA:	Erika Domotor	*Email:*	edomotor@umd.edu
Office Hours:	Tuesday, 5:30- 6:30 via Zoom and by appointment		

Class Location:	1400 16th Street, NW Suite 140, Washington DC
Class Time:	Wednesday, 6:45 - 9:30 pm
Class Website	https://myelms.umd.edu

Course Description

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, health insurance and trade policy 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 yea 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.

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.

Course Materials

Textbooks:

- 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.

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.

Since this course will rely on differential calculus and algebra it is highly recommended to have a math for economists reference book. There are a few to choose from:

- Carl Simon and Lawrence Blume, Mathematics for Economists,1994 ISBN-13: 978-0393957334
- Chiang, Alpha. Fundamental Methods of Mathematical Economics. (4th Ed.).
- Sydsaeter, K., Hammond, P. and Strom, A. (2012). Essential Mathematics for Economic Analysis. 4th edition. Pearson Higher Education.
- Klein, Michael W. Mathematical Methods for Economics. 2d Edition. (available at UMD library)

Additional Resources:

- Ted Bergstrom and Hal Varian, Workouts in Microeconomic Theory (online)

  www.econ.ucsb.edu/ tedb/Courses/GraduateTheoryUCSB/workouts.pdf

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

Course 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.

Course Structure

Based on the objectives of the course, each lecture would be split between concepts presentation (in the form of slides) and application presentations by students (as described below). Lectures will follow textbooks.

Course Work

- **Problems Sets (30 points):** There will be six problem sets assigned throughout the quarter. The homework is due at the beginning of class on the listed below due dates. The homework will always consist of 4 analytical problems and textbook reading quiz. 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 pictures 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.

- **Calculus Quiz (5 points):** In the third week of class, there will be a calculus assessment quiz to help identify students in need of additional review. The quiz would test your ability to apply calculus to microeconomic analysis with the focus on the consumer behavior modeling.

- **Midterm Exam (15 points):** Midterm will consist of problems similar to the problem sets. The material for the quiz can be from anything covered prior to that class. The quiz will be closed book. Calculators are permitted, but no notes or other study aids of any kind will be permitted.

- **Presentations** (**15 points**): 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 on ELMS) as the starting points for student presentations that look a bit further into the issues they raise. During the first week of class, students will be assigned into pairs. In particular, students may post their two or three most preferred topics in the discussion board. Students have until 5pm on Friday to form pairs on their own, and E-mail me with them. After that point, I will assign pairs as I see fit. Each pair will prepare a Power Point to be presented during the class. Each presentation's topic will roughly correspond to when we cover the material in class. Those not presenting are required to read the application in advance of the presentation. All other students are expected to participate in online discussion (as discussed below) of the presentation.

  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 Power Point 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 Power Point presentations are due as E-mail attachments by 7:00 p.m. on the Sunday before your presentation. Please send them to mbelenki@umd.edu. I will send feedback by 8:00 p.m. on Monday. You need to revise your presentation based on my feedback and send the final version to me as an E-mail attachment by 6:00 p.m. on the day of the presentation. Student presenters should have a well-prepared presentation that lasts about 10 minutes. During these 10 minutes, the other students and I will only interrupt for brief clarifying questions. We will have weekly presentations starting from the second week of class with the exception of weeks with Quiz/Midterm Exam.

- **Online Discussions (5 points):** Each Thursday (starting in the second week of the course), each student pair should send me a joint E-mail with a question, constructive criticism, or comment regarding each presentation that was made the prior Wednesday. I will use these comments/questions (modified slightly) as prompts for opening a thread on the discussion board. The student pairs should actively collaborate (via Zoom, phone, text, etc.) in order to generate this comment/question.

  By Friday morning, I will take these questions/comments and use them as the first post in several discussion threads on the ELMS website. The presenter then has until Sunday to respond to each thread. Each student then has until the beginning of next class to post one additional comment or question in whichever thread they like. (Even if there were multiple presentations, the student should still contribute only one additional comment in a given week.) Students should not follow up in a thread until the presenter has responded to the initial question/comment. I will also contribute questions and comments as I see fit.

- **Final Exam (30 points):** The final exam will be given on the last day of class and will be 120 minutes in length. The exam will be a comprehensive exam covering ALL material discussed throughout the course, including lecture slides, textbook and other reading material, in-class assignments and problem sets. The exam is closed-book. Calculators are permitted, but no notes or other study aides of any kind will be permitted.

Assignment and Test Dates:

Problem Set #1	Assigned: September 8, 2021	Due: September 15, 2021
Calculus Quiz	September 15, 2021	
Problem Set #2	Assigned :September 15, 2021	Due: September 22,2021
Problem Set #3:	Assigned: September 22, 2021	Due: September 29, 2021
Midterm Exam	October 13, 2021	
Problem Set #4:	Assigned: October 13, 2021	Due: October 20, 2021
Problem Set #5:	Assigned: October 20, 2021	Due October 27, 2021
Problem Set #6	Assigned :October 27, 2021	Due: November 3, 2021
Final Exam	November 17, 2021	

Final Grade

There will be no make-ups for any graded components unless you provide a ***legitimate excuse in a reasonably timely fashion that abides to University protocols****. See the Excused Absences section at the end of this syllabus.*

With the allocated points (between 0 and 100) that are listed in the Course Work section, your grade will be calculated based on the following absolute scale scores:

93-100	A
90-92	A-
80-89	B+
70-79	B
60-69	B-
50-59	C+
40-49	C
30-39	C-
20-29	D+
10-19	D
0-9	F

Other Standard Policies for the Program and the University of Maryland

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. 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 DC 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. However, the DC program takes just 1 week off between terms. 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 DC program is equivalent to 133% of a "normal" full-time load in the traditional semester-based program ($8/6 = 1.33$).

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 be forced to leave the program 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.

Academic Integrity: The University of Maryland has a nationally recognized Code of Academic Integrity. You should inform yourself about the UMD policies related to academic misconduct:
https://www.studentconduct.umd.edu/home/current-students

The exams in this course will ask students to affirm the UMD Honor Pledge: "I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination."

Cases of academic misconduct, including plagiarism and giving or receiving unauthorized assistance on exams, will be referred to the UMD Office of Student Conduct. If found responsible for academic misconduct, students can be subject to sanctions. The standard sanction for graduate students found responsible for cheating on exams is expulsion from the university.

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.

Excused Absences: The University of Maryland's policy on excused absences is posted here:
http://www.president.umd.edu/administration/policies/section-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 make sure you catch up on the missed material. 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.

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) The program director will also 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. If classes need to be cancelled during the semester, it may be necessary to move the final exam back a week so missed classes can be made up.

UMD Counseling Center: Sometimes students experience academic, personal and/or emotional distress. The UMD Counseling Center in Shoemaker Hall provides comprehensive and confidential support services that promote personal, social, and academic success. The cost of these services is covered by the fees you already paid when you registered for classes, and there is no additional charge if you use the services. Proactively explore the range of services available, including the Counseling Service, Accessibility and Disability Service, and the Testing Office, all described at http://www.counseling.umd.edu/

Graduate Academic Counselor: The UMD Graduate School also has an academic counselor available to support students who are having difficulty navigating mental health resources on campus, are considering a leave of absence and/or need assistance finding mental health care off campus. The Graduate Academic Counselor also facilitates bi-weekly Graduate Student Circle Sessions which provide an opportunity to learn about resources and connect with other graduate students. Students can learn more about the Graduate Academic Counselor by going to: https://gradschool.umd.edu/gradcounselor

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.

Course Evaluations: Near the end of the term, you will receive an email inviting you to submit a voluntary and anonymous course evaluation. Your feedback on courses will be very helpful in improving the quality of instruction in our program.

Building Access: The door to the building at 1400 16th Street is unlocked on weekdays until 7:00 PM. Students who arrive after 7:00 PM or on weekends will find the door locked. You can 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 always also 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're with the University of Maryland (suite 140 in 1400 16th Street), they should ask you for a password. When you tell them the password, they will buzz you in. You can get the password from the program coordinator, the TAs, 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.

Covid-19 Information: Up-to date information about UMD Covid-19 policies and guidance are posted at https://umd.edu/4Maryland . Given the evolving nature of the pandemic, the guidance and polices are subject to change. The plans are always coordinated with state and county health officials, with additional guidance provided by the University System of Maryland. The focus will always be on the health and well-being of our entire campus community.

We strongly urge all students, staff and faculty to read announcements they receive about Covid-related guidance and policy, and to stay familiar with the information posted at https://umd.edu/4Maryland We thank you all for your individual efforts to help protect the collective health of our entire community.

Tentative Course Outline

This outline may be revised during the semester. For the latest version, check the course webpage.

Week	**Dates**	**Text Book (Varian)**	**Topics**
1	September 1, 2021	Ch 2,3 4	Preferences and Utility
2	September 8, 2021	Ch. 5,6,7.1-7.5	Lagrangian Method, Derivation of Demand
3	September 15, 2021	8	**Calculus Quiz,** Slutsky Equation
4	September 22, 2021	9, 14, 15	Labor Supply, Consumer Surplus, Market Demand
5.	September 29, 2021	10,12	Intertemporal Choice, Uncertainty
6	October 6, 2021	19, 21, 22, 23	Firm Theory
7	October 13, 2021	16	**Midterm Exam**,Supply and Demand
8	October 20, 2021	25, 26, 27	Monopoly, Monopsony, and Market Power
9	October 27, 2021	28, 29, 30	Imperfect Competition and Game Theory
10	November 3, 2021	35, 37, 38	Externalities and Public Goods
11	November 10, 2021	34	Welfare, Final Review
12	November 17, 2021		**Final Exam**