# Economics 4011 Intermediate Microeconomics

Instructor: Subhasish Dugar Lecture Location: GC 2900

Phone: 801 587 1294 Lecture Days/Time: MW 1:25 PM – 2:45 PM

Preferred Communication Mode: Email Grader: Sanchaita Hazra

subhasish.dugar@economics.utah.edu Email of the grader: sanchaita.hazra@utah.edu

Office: Building Gardner Commons Room # 4039 Office Hours with me: Every Friday 11 AM – 12 Noon

Fall 2021

**Textbook: Intermediate Microeconomic Theory: Tools and Step-by-Step Examples**, by Ana Espinola-Arredondo and Felix Munoz-Garcia, Edition:1<sup>st</sup>, 2020, The MIT Press.

For each topic covered in the class, we will follow the corresponding chapter in the book; however, we will sometimes skip some of the material from the book as I deem fit. What we will skip and what we will not be at my discretion. Also, for each topic, we will heavily complement the textbook with my in-class lecture material.

**Course Description:** This is an intermediate course in microeconomic theory. The course is purely theoretical. The goal of the course is to introduce you to a self-contained analysis of the basic building blocks of *neoclassical microeconomic theory*. The prerequisites for this course are: College Algebra and Econ. 2010, 2020, and 3620, or equivalent knowledge in mathematics. In general, this is perhaps one of the most challenging economics courses you will take as an undergraduate. I can't overemphasize the importance of engaging with the material. Every problem you solve and every lecture you attend will push you further down the road toward a better understanding of the material. This course is dense and, therefore, requires an absolute commitment on your part.

**Mathematical Proficiency:** I cannot stress enough the importance of "knowing some basic mathematics" for success in this course. By "some basic mathematics", I mean the following:

- Algebra: solving a system of two or more linear equations with two or more unknowns; basic operations with exponents, both positive and negative; operations with  $n^{th}$  roots
- How to graph a function of a single argument/variable
- How to determine the slope value of a function
- Calculus: A function of a single argument/variable and its first- and second-order derivatives and its graphing; derivative as the slope of the curve; basic differential rules such as product rule, division rule, power rule, and total differentiation rule; polynomial functions differentiation; a multivariate function and its first-order partial derivative
- Difference between constants and variables

Note that the above list is merely suggestive, and it is *not* intended to be exhaustive by any means.

As mentioned above, the prerequisites for this course are: College Algebra and Econ. 2010, 2020, and 3620. If you think you need help with any of the concepts listed above, I strongly encourage you to seek help from me or the TA (if one has been provided for this class).

**Grader:** Sanchaita Hazra is the grader for this class. In other words, she will grade all three exams. If you have questions regarding the grading of an exam question, you must ask her by emailing her (copy me)

within a week from the day the grades are posted on Canvas. No exceptions to this rule will be entertained. Again, Sanchaita's email is: sanchaita.hazra@utah.edu

**Course Materials:** Course materials (syllabus, assignments and their solutions, exams and their solutions, etc.) will be posted on Canvas course page regularly. I will also send you important emails about the class to your email address registered with the university. It's your responsibility to check Canvas announcements and emails accordingly. Of course, I will try to alert you to such postings/notifications/announcements during the class. However, you must check Canvas and your email regularly as some of these announcements and emails may contain critical information regarding the course. You may choose to familiarize yourself with Canvas. The <u>Canvas Getting Started Guide for Students</u> page can be helpful in that regard.

**Learning Outcomes:** At the end of the course, students are expected to know how consumers, firms, and individuals make optimal decisions in markets in the presence of certainty and uncertainty and arrive at those optimal decisions using analytical and conceptual tools developed in the class.

**Schedule of Topics:** I generally don't like to provide such a list because, most often than not, I fail to abide by my suggestions, mainly because each class is a different entity and has its character, which is perfectly fine. Some of the topics listed below may not be covered, which is at the professor's discretion.

August 23 -31: Consumer Preferences and Utility (chapter 2 of the textbook)

September 1 – 15: Consumer Choice (chapter 3 of the textbook)

September 16 – September 30: Substitution and Income Effects (chapter 4 of the textbook)

October 1 – October 31: Production Functions & Cost minimization (chapters 7 and 8 of the textbook)

November 1 – November 30: Profit Maximization, Perfect Competition & Monopoly (chapters 9 and 10 of the textbook)

December 1 – 8: Choice under Uncertainty (time permitting; chapter 6 of the textbook)

Evaluation Methods and Criteria: There will be two midterms and a final, all given online.

Midterm Exam I date: September 22 (take-home open-book online exam conducted via Canvas; no proctoring tools such as ProctorU will be used)

Midterm Exam II date: November 3 (take-home open-book online exam conducted via Canvas; no proctoring tools such as ProctorU will be used)

Final Exam date: December 13 (take-home open-book online exam conducted via Canvas; no proctoring tools such as ProctorU will be used)

Note that all the details of the midterms and the Final Exam will be announced in the class, and the details will be at the professor's discretion. My exams do not contain multiple choice type questions or long essay type questions. The exam dates for the first two exams can change with reasonable notice to you. Any changes will be announced on Canvas.

Midterm I will include all the material covered till the last class before midterm I, midterm II will include all the material covered between the first class after midterm I and the last class before midterm II, and Final Exam will be comprehensive, meaning that the Final Exam will cover the entire material covered from the first day of the class up to the last day of the class. **The best of your three exams will receive 50% weight, the second-best Exam will receive 30% weight, and the lowest score will receive 20% weight.** At the end of the semester, your course grade will be based on these weights and nothing else: there is no way to do "extra work" to raise your grade. To repeat: if you ask me at the end of the semester if you can do any extra work to increase your grade, the answer will be no. The way to get a good grade is to study hard for the exams. Students often tell me that they worked hard, and despite that, they did not do well on the exams. My categorical answer to such replies is this: your exams will be evaluated for your demonstrated knowledge in the subject and accuracy of your answers, but you will not be assessed and graded for how hard you worked, etc.

Exam Modality: All three exams will be take-home open-book online exams and will take place at a specified time (details will be provided well in advance of each exam). The exams will be managed via Canvas. Each exam will roughly follow the following procedure. Canvas would make the exam available for a pre-specified time window (say four hours or 240 minutes) on the exam date. Each student will get a total of X minutes (where X is less than or equal to four hours or 240 minutes) to work on the exam during that pre-specified time window. Note that those X minutes will already include some additional time to compensate you for your time spent scanning all the exam pages and uploading them to Canvas. A student can log on to Canvas and access the exam and work on it anytime during this pre-specified time window. As soon as you access the exam for the first time, the clock would start ticking for you, and the exam time (that is, X minutes) would kick in from the time you first accessed the exam on Canvas. The student MUST read and work on the exam and upload their answer on Canvas in PDF or any readable image format (JPG, PNG). No late submission will be accepted. If you fail to submit the exam by the deadline, you will receive zero weight for the exam. The uploaded exam should be legible. Please check if your file is readable when uploading your answer on Canvas. If your exam is not readable, I cannot ascertain whether you got an answer correct or not, and therefore, you will receive zero points. Please write your name on each exam page and number all the pages. You MUST print the total number of pages you have used for that exam on the first page of the exam. How to convert your WORD, EXCEL, etc. file into a PDF: Here is an online PDF maker - <a href="https://tools.pdfforge.org/">https://tools.pdfforge.org/</a>

Two important notes about the exams:

- You must combine all your individual answer files into one single file and upload that single answer file to Canvas.
- Do not send me or the TA/grader all individual answer files.

Assignments: I will upload three (lengthy) assignments on Canvas. One for Consumer Theory, one for Production and Cost Theory, and the last will be on Perfect Competition and Monopoly. The assignments will not be graded. Their purpose is to make you solve questions to develop intuitions as to how to solve problems in the exams. In case you want to solve the questions on the assignments before I solve them in the class (which I will do for each assignment) and check your understanding of the material, you are welcome to come to my Zoom office hours. I will also solve some of the questions from the exercises in the textbook. In general, I will try to solve at least one problem selected either from my question bank or from the textbook exercise or the assignment in each class. I think all of this will give you enough practice opportunities. My criterion for selecting questions from these sources will be this: each question should make you approach the given material from a different point of view and/or expose you to a different

intuition for a given material; I don't find it helpful to solve similar types of questions or the same question multiple times. You should solve as many problems on your own as you can. Doing well in the course, among other things, is to solve as many problems as possible. Finally, it's your responsibility to attend lectures regularly and know how to solve questions. I will not solve a question more than once in the class or during my Zoom office hours because you missed a class during which that question was solved.

Missed Exams etc.: Students who cannot write a midterm should supply written evidence (an email will do) of their reason for missing the Exam. If the cause is an illness, a doctor's note (with the doctor's office address and phone number clearly shown) is needed. If you miss an exam because you are participating in a university-sponsored activity, I will allow you to miss the exam. Documentation for missing an exam MUST be provided. I DO NOT give exams for missed exams. When a student has a legitimate (documented) reason for missing one exam, the exam 's weight will be distributed equally to the other exams. No make-up exams are given. All students are expected to abide by the academic code of conduct as laid out by the University available at https://regulations.utah.edu/academics/6-400.php

**Grading:** Midterms and the final exam are marked on a numerical basis, then converted to letter grades. The course grade is then calculated using the weights indicated above. As a guide to determining standing, these letter grade equivalences will apply:

 $A \ge 93\%$   $93\% > A - \ge 90\%$   $90\% > B + \ge 87\%$   $87\% > B \ge 83\%$   $83\% > B - \ge 80\%$   $80\% > C + \ge 77\%$   $77\% > C \ge 73\%$   $73\% > C - \ge 70\%$   $70\% > D + \ge 65\%$   $65\% > D \ge 60\%$   $60\% > D - \ge 50\%$ 50% > E

Incompletes are not generally given for non-medical reasons.

This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. Any changes will be announced on Canvas.

#### **Notes:**

- **Covid-19 Information:** University leadership has urged all faculty, students, and staff to model the vaccination, testing, and masking behaviors we want to see in our campus community. These include:
  - Vaccination
  - Masking indoors
  - If unvaccinated, getting weekly asymptomatic coronavirus testing

Please visit the following <u>link</u> to learn more about the above three sub-bullet points (vaccination, masking, and coronavirus testing). Also, you can always visit the following website to find out the University's policies regarding Covid-19: https://coronavirus.utah.edu/

### • Academic Code of Conduct Statement

Cheating on exams and other forms of academic dishonesty may lead to expulsion from the class, course failure, or more severe penalties such as dismissal from the University. In accordance with University regulations. For related University policy, please refer to this link: <a href="http://regulations.utah.edu/academics/6-400.php">http://regulations.utah.edu/academics/6-400.php</a> (Section I). If you are caught cheating in this class, I must send a letter to your dean about that, and the letter will be put in your permanent University file. I punish cheating quite severely.

# • The Americans with Disabilities Act (ADA) Statement

The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 801-581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services.

# Addressing Sexual Misconduct Statement

Title IX makes it clear that violence and harassment based on sex and gender (which Includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

# Wellness Statement

Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources, contact the Center for Student Wellness at www.wellness.utah.edu or 801-581-7776.

#### • Student Names and Personal Pronouns Statement

Class rosters are provided to the instructor with the student's legal name as well as "Preferred first name" (if previously entered by you in the Student Profile section of your CIS account). While CIS refers to this as merely a preference, I will honor you by referring to you with the name and pronoun that feels best for you in class, on papers, exams, group projects, etc. Please advise me of any name or pronoun changes (and update CIS), so I can help create a learning environment in which you, your name, and your pronoun will be respected. If you need assistance getting your preferred name on your UIDcard, please visit the LGBT Resource Center Room 409 in the Olpin Union Building or email bpeacock@sa.utah.edu to schedule a time to drop by. The LGBT Resource Center hours are M-F 8 AM-5 PM and 8 AM-6 PM on Tuesdays.

### • Non-Contract Note

This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. I may also modify the Course Schedule to accommodate the needs of our class. Any changes will be announced in class and posted on Canvas under Announcements.

# Safety on Campus

The University of Utah values the safety of all campus community members. To report suspicious activity or request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit <a href="mailto:safeu.utah.edu">safeu.utah.edu</a>

### • Student Mental Health Resources

Rates of burnout, anxiety, depression, isolation, and loneliness have noticeably increased during the pandemic. If you need help, reach out for <u>campus mental health resources</u>, including counseling, trainings and other support. Consider participating in a <u>Mental Health First Aid</u> or <u>other wellness-themed training</u> provided by our Center for Student Wellness and sharing these opportunities with your peers, teaching assistants and department colleagues.