Course Syllabus – Fall 2022

06/04/2022 Preliminary version

Course Information

Course Prefix, Number, Section Course Title ECON 3310 001 22F Intermediate Microeconomic Theory

Term	Fall 2022
Days & Times	Tuesday & Thursday 10:00- 11:15 am GR 3.606
	Room Locator available in: https://map.utdallas.edu/

Professor Contact Information

Professor	Nan Clement
Email Address	nclement@utdallas.edu
Office Location	GR 2.612 (Close to the south entrance of Green Hall)
Office Hours	Thursday 12:00-2:00 pm
	(and Friday 11:00-12:00 on teams if you need it)

I am happy that you are in my class. I welcome you to communicate with me outside of class via question session in our weekly quiz, during office hours, teams, and email about the content of the course or whatever I can help with. You can pick up your OWN homework during office hours.

Course Pre-requisites, Co-requisites, and/or Other Restrictions

ECON 2302 and (MATH 1325 or MATH 2413 or MATH 2417) and (ENGR 3310 or EPPS 2302 or OPRE 3360 or STAT 1342 or STAT 2332 or STAT 3341 or STAT 3355 or STAT 3360 or STAT 4351 or CS 3341).

Course Description

Your employers, investors, life partners and children in the future will expect you to research and understand answers to complex questions. And I am here to introduce you several handful tools.

ECON 3310 is usually the first upper-level economic class students take, the first major core course and a foundation for all the higher economic courses. We learn rigorous algebra and calculus tools to solve basic marginal cost/benefit and constrained optimization problems consumers and producers face. We also talk about interaction and strategic behaviors among them in the market. At the end of this class, the students are equipped with tools to analyze demand and supply side behaviors in more complicated circumstances in specific subdisciplines in economics.

Student Learning Objectives/Outcomes

At the end of the course, the most important skill I hope you will obtain is to employ marginal cost-benefit analysis within the context of individual and/or producer behavior.

Required Textbooks and Materials

Microeconomics, 9th edition by Robert Pindyck and Daniel Rubinfeld. (e-text available) The 8th and 7th edition are also fine.

How to use the textbook: you need to scan the required reading before coming to class, and I will nudge the preview by having random questions in the quizzes on Elearning.

Suggested Course Materials

For math, please refer to Ummer, E. K. *Basic Mathematics for Economics, Business, and Finance*. Abingdon, Oxon. ;: Routledge, 2011. Print. (available online in <u>https://library.utdallas.edu/</u>).

For Microeconomics, please refer to ECON 2302 Principle of Microeconomics textbook and notes.

Assignments & Academic Calendar

(I expect you to bring the class handouts, in which ever format you prefer, to every class, so we can fill it out together. It will be posted on eLearning before the class.)

	Day	Date	Topics and Required Reading	Deadlines
Week 1	Tue	8/23/2022	Philosophy, Syllabus and Ch3: Budget Constraints: Budget line and the effect of Changes in Income and Prices in 3.2	
	Thu	8/25/2022	Math Review	Practice Question 1 (optional)
Week 2	Tue	8/30/2022	Ch 3: Indifference Curves, Indifference Maps, The Shape of Indifference Curve, The Marginal Rate of Substitution in 3.1 The Effects of Changes in Income and Prices in 3.2 Consumer Choice in 3.3	Quiz 1 due on 8/31 5pm; Practice Question 2 (optional)
	Thu	9/1/2022	Ch 3: Marginal Utility and Consumer Choice in 3.5 To help with your upcoming HW 1: we need to form voluntary study groups and I will hold a Partial Derivative Workshop	
Week 3	Tue	9/6/2022	Ch 4: The Individual Demand Curve in 4.1 Income Change, Normal versus Inferior Goods in 4.1	Quiz 2 due on 9/7 5 pm Last day to drop without "W": 9/7
	Thu	9/8/2022	Ch 4: Substitution Effect, Income Effect in 4.2 Elasticity of Demand in 4.3 Ch 4: Consumer Surplus and Demand in 4.4	HW 1 due on 9/13, hand-in in class
Week 4	Tue	9/13/2022	Review Session: Review of HW 1	Quiz 3 due on 9/14 5pm, HW 2 due on 9/20, hand-in in class
	Thu	9/15/2022	Ch 5: Expected Value and Variability and Decision Making in 5.1 Risk Aversion and Income, Risk Aversion,	Quiz 4 due on 9/23 5pm

Week	Tue	10/25/2022	Review session: review of HW 4	
	Thu	10/20/2022	Other variation	HW 4 due on 10/25, hand- in on eLearning
Week 9	Tue	10/18/2022	Review Session: Review of HW 3 (normal grading resumes starting HW 3)	Quiz 7 due on 10/19 5pm
	Thu	10/13/2022	Ch 8: Short Run Profit Maximization by a Competitive Firm in 8.4, Long-run Profit Maximization, Long-Run Competitive Equilibrium in 8.7 Elasticity of Market Supply in 8.6	HW 3 due on 10/18, hand- in on elearning
Week 8	Tue	10/11/2022	Measuring Cost: Which Costs Matter? In 7.1 Perfectly Competitive Markets in 8.1 Marginal Revenue, Marginal Cost, and Profit Maximization in 8.3	Quiz 6 due on 10/14 5pm
	Thu	10/6/2022	Mapping Consumer Theory to Producer Theory	
Week 7	Tue	10/4/2022	Exam 1 (grading for exam 1 will be different from all the other gradings. Scale will be applied. No one will fail exam 1)	
	Thu	9/29/2022	Review and Q&A	Quiz 5 due on 9/30 5pm
Week 6	Tue	9/27/2022	Application and summary of consumer and producer theory. Production with Two Variable Inputs in 6.3, Return to Scale in 6.4	
	Thu	9/22/2022	The Isocost Line, Choosing Inputs in 7.3	
Week 5	Tue	9/20/2022	Review Session: Review of HW 2	Hand-in HW 2
			and Indifference Curves in 5.2 Riske and Indifference Curves in 5.4 Other variations: Leontief Preferences, and labor supply (the labor-leisure choice)	

10

	Thu	10/27/2022	Online review session: no new materials. I will post several recorded videos explaining additional questions I got for exam 2, as many as you may need.	Quiz 8 due on 10/28 5pm
Week 11	Tue	11/1/2022	Exam 2 (not cumulative)	Quiz 9 due on 11/2 5pm
	Thu	11/3/2022	Ch 9: Review of Consumer and Producer Surplus, Application of Consumer and Producer Surplus in 9.1 Ch 10: Measuring Monopoly Power, The Rule of Thumb for Pricing in 10.2	
Week 12	Tue	11/8/2022	Ch 11: First, Second and Third-Degree Price Discrimination in 11.2, Intertemporal Price Discrimination and Peak-Load Pricing in 11.3	Quiz 10 due on 11/9 5pm.
	Thu	11/10/2022	Ch 11: Single Consumer in 11.4, Relative Valuations in 11.5	Optional Practice Question 4 and Optional Practice Question 5 will be distributed, only hard copies
Week 13	Tue	11/15/2022	Ch 11: Why Vertically Integrate? In Appendix to Chapter 11	Final Quiz due on 11/18 5pm
_	Thu	11/17/2022	Ch 12: The Prisoners' Dilemma in 12.4 Ch 13: The Nash Equilibrium Revisited- The Prisoners' Dilemma in 13.3	
Week 14	Tue	11/22/2022	Enjoy your Fall Break	
	Thu	11/24/2022	Enjoy your Fall Break	
Week 15	Mon	11/29/2022	Ch 12: Competition versus Collusion: The Prisoner's Dilemma in 12.4, and more application	

_	Wed	12/1/2022	Ch 13: Tit-for-tat strategy in 13.4. Ch 13: Threats, Commitments, and Credibility in 13.6.	
Week 16	Mon	12/5/2022	Review Session	
	Wed	12/8/2022	Exam 3 (not cumulative)	Exam 3 is not cumulative

Grading Policy

Homework (4 in total, lowest drop)	15%*
Quiz (11 in total, lowest drop)	10%**
Exam 1	25%
Exam 2	25%
Exam 3	25% [!]
Extra credit towards each exam	Extra credit is awarded to encourage participation, early effort and progressing attitude. ***

*Good reflection and resubmission of homework shows me your determination to get better. Those who don't submit homework in the first place will not be awarded.

**Quizzes on eLearning are with the largest marginal benefits and minimal marginal costs. It is irrational to skip them.

*Group activities could appear anytime. Your name is on the work, your name will be on the extra credit list.

Pop-up quizzes could appear anytime. Let's ditch procrastination!

Grading scale: A+ (4.0) :95-100, A (4.0) :92-94, A- (3.67) :90-91; B+ (3.33): 88-89, B (3.0): 82-87, B- (2.67) : 80-81; C+ (2.33) : 78-79, C (2.00) :72-77, C- (1.67) : 70-71; D+ (1.33) : 68-69, D (1.00) : 62-67, D- (0.67): 60-61; F:0-59.

¹ Instead of exam 3, you may have an option to do a case study (based on our progress for exam 1 and exam 2 as a whole class). We will discuss it after exam 2. If you think you do better in exams, you can take exam 3. If you believe you never do well under the pressure of exams and want to do a case study, you can choose a case to apply all you learnt in this class. Details can be found at the end of the syllabus.

Rubric for True or False questions in homework and exams:

We celebrate improvement of **critical thinking** skills in our class. The following table is how your True or False questions will be graded.

Criteria	100%	Example answer
The answer only includes the judgment, or rewrite/ restatement of the original statement in the question.	0%	False
The answer points out the important part of statement and attempt to analyze the issue.		False. The concept of XXX is defined as, so it means that in

		this statement the consumer In this way, the statement is wrong.	
The answer includes deep analysis of the important concept or argument, and necessary calculation is attempted. In the analysis, there is major mistake.	70%	False. The concept of XXX is defined as, so it means that in this statement the consumer The statement is false because	
The judgement is either right or wrong. The answer includes deep analysis of the important concept or argument, and necessary calculation is conducted. In the analysis, there is minor mistake.	90%	 False. Explanation of the important concepts Conduction of all the necessary calculations Conclusion with logical reasoning (But there is minor mistake along the way) 	
The judgement is right. The reason contains clear logic and evidence that the student's competence of the concept and techniques learnt in class.	100%	False. Explanation of the important concepts Conduction of all the necessary calculations Conclusion with logical reasoning	

Classroom Citizenship

Discussion and Collaboration are encouraged with homework, while direct copying receives a zero. I believe in the power of learning from peer students. Either by walking your friends through the steps of solving a question or by debating different answers, you accelerate your own learning speed and polish your own communication skill.

Course Policies

Make-up exams are not offered under any circumstances. If a student fails to hand in an assignment or exam before the deadline without a legitimate and documented excuse, the student will receive a zero on that assignment or exam. If a student fails to hand in an assignment or an exam before the deadline with a legitimate and documented excuse (e.g., documented illness or family emergency), the weight on that problem set or exam will be shifted to the remaining assignments.

Extra credit: All the available extra credit opportunities will be determined during the semester by the professor and will be communicated in class.

Class Materials

The instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course; however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class or uploaded to other online environments except to implement an approved Office of Student Accessibility accommodation. Failure to comply with these University requirements is a violation of the <u>Student Code of Conduct</u>.

Class Attendance

The University's attendance policy requirement is that individual faculty set their course attendance requirements. Regular and punctual class attendance is expected regardless of modality. Students who fail to attend class regularly are inviting scholastic difficulty. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes.

You should attend every class, but extenuating circumstances arise that can make this difficult. If you cannot attend a class, please let me know.

Class Participation

Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the <u>Student Code of Conduct</u>.

All of us in the class, you, me, your peers have a responsibility to create an environment in which we can all learn from each other. I expect everyone to participate in class so that we can all benefit from the insights and experiences that each person brings. Extra credit is always awarded for in-class activities.

Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the <u>Student Code of Conduct</u>.

The instructor may record meetings of this course. These recordings will be made available to all students registered for this class if the intent is to supplement the classroom experience. If the instructor or a UTD school/department/office plans any other uses for

the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

Academic Support Resources

The information contained in the following link lists the University's academic support resources for all students.

Please see http://go.utdallas.edu/academic-support-resources.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please review the catalog sections regarding the <u>credit/no credit</u> or <u>pass/fail</u> grading option and withdrawal from class.

Please go to http://go.utdallas.edu/syllabus-policies for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.

Econ 3310 Case Study Instruction

1. Introduction

Students are provided with an option to skip Exam 3 and instead finish a case study presentation. The case study is for students, especially seniors, to have a project experience to talk about on their CV. The case study provides an opportunity to apply classical economic theory to a problem faced by an industry where you may want to find a job. Instructions on the procedure of the option and details of the grade are as follows.

2. Requirement

To receive credit, you (a team with 1-3 members) need to submit a recorded video and provide feedback for other groups. The presentation needs to have all members talking, and you are graded separately and not as a group.

3. 4 Deadlines

11/15: Sign up.

Once you put your name in, you and your team can start to work on the project. It is OK if you regret and drop out. Just make sure you let your teammates know. Also by the end of 11/15, if you have not put your name in any project, you need to take exam 3 to get the 25% of the score.

12/1: You need to meet with me during office hours as a group to talk about your outline of the presentation. Outline check sheet in this file.

12/3: You need to post a link to your recorded video of your group presentation on the "Real Life Marginal Analysis" forum on the discussion board on elearning. It can be a link of drive (make sure you share the link allowing everyone to view it), or box, or dropbox or youtube.

12/8: By the end of 12/8, you need to add comments to all the other groups' presentations on the discussion board.

4. Responsibility

1 person group: The presentation is at least 10 minutes long. The person is responsible to analyze the case with one knowledge from after exam 2 and one knowledge from before exam 2 or before exam 1. Overview and details of related facts from the case need to be introduced as well.

2 person group: The presentation is at least 15 minutes long. One person is responsible to analyze the case with one knowledge from after exam 2 and one knowledge from before exam 1. The other person is responsible to analyze the case f with one knowledge from after exam 2 and one knowledge from after exam 1 before exam 2. Overview and details of related facts from the case need to be introduced separately.

3 person group: The presentation is at least 18 minutes long. Each person needs to pick a knowledge point from after exam 2 and one knowledge from before exam 2 or before exam 1. Overview and details of related facts from the case need to be introduced separately.

Parts	Grades
Quality of your analysis	50 (25 for each concept you apply)
Quality of your contents on the slides	30 (15 for each concept you present)
Comments on other presentations	10
Presentation Skill	5
Outline check in office hour	5
Total	100 (to replace exam 3)

5. Grade

Each of the two concepts will be graded based on a check-plus, check and check-minus scale:

Check-plus = 100% Check = 80% Check-minus = 60%

Guideline for commenting:

1. It may take you more than half an hour to watch each case study presentation and leave a comment, so plan your time well.

2. No score will be given to comments posted later than the deadline.

3. You do need to comment on all the other cases. However, if your friends recorded their videos separately, you do not need to leave your comments individually for each one. You only need to leave at least one comprehensive comment for each case study to receive the score. So, if I see you posted enough comments, one for each case, then you are fine.

- 4. Do not post anonymously. I will not be able to give you a grade for your discussion.
- 5. Make sure you comment after you watch the whole presentation.
- 6. Outline of a good comment:
- a. What do you like about the case? What did you learn from it?
- b. If you did this case study, what would you talk about?
- c. Suggestions for the presenter to extend their case study.
- 6. Outline check sheet

	Person 1	Person 2	Person 3
What concept(s) from after exam 2 are you using and what concept(s) before exam 2 are you using?			
Which textbook chapter is most relevant?			
Whose problem and what is the problem you are trying to solve?			
Who is the supplier in your problem?			
Who is the consumer in your problem?			
Who are the market strategic players in your problem? (if you are using game theory)			

7. Cases will be purchased on HBS website

Make sure you purchase only the case you are interested in. And make sure you are buying through the coursepack because it is cheaper. You will be able to choose from up to 10 cases. The list will be produced after I know and consider everyone's interested industry and job.

8. Useful references:

Presentation skill: MIT How to Speak, IAP 2018: <u>https://www.youtube.com/watch?v=Unzc731iCUY</u> Instructor: Patrick Winston View the complete course: <u>https://ocw.mit.edu/how_to_speak</u>

Marginal analysis in real life:

John List, Chapter 7: Revolution on the Margins, The Voltage Effect, 2021, Currency, New York (Partially copied and distributed in class)