# Course Syllabus – Spring 2022

#### (04/02/2022) Case study option

#### Course Information

Course Prefix, Number, Section EC Course Title International Internation

ECON 3310 501 22S Intermediate Microeconomic Theory

Term	Spring 2022
Days & Times	Monday & Wednesday 5:30- 6:45pm GR 3.606
	Room Locator available in: <u>https://map.utdallas.edu/</u>

## **Professor Contact Information**

Professor	Nan Clement
Email Address	nxz160030@utdallas.edu
Office Location	GR 2.612 (Close to the south entrance of Green Hall)
Office Hours	Mon 8:30-10:30am
Other Information	homework is handed-in and returned in class only.

I welcome you to communicate with me outside of class via question session in our weekly quiz, office hour, teams, and email about the content of the class. 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, 9<sup>th</sup> edition by Robert Pindyck and Daniel Rubinfeld. (e-text available) The 8<sup>th</sup> and 7<sup>th</sup> edition are also fine.

## **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 https://library.utdallas.edu/ ).

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	Wed	1/19/2022	Philosophy, Syllabus and Ch3: Budget Constraints: Budget line and the effect of Changes in Income and Prices in 3.2	
Week 2	Mon	1/24/2022	Math Review	Practice Question 1 (optional) bring to next class
	Wed	1/26/2022	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 1/27 5pm; Practice Question 2 (optional) bring to next class
Week 3	Mon	1/31/2022	Ch 3: Marginal Utility and Consumer Choice in 3.5	
	Wed	2/2/2022	Class Canceled by University	
Week 4	Mon	2/7/2022	Ch 4: The Individual Demand Curve in 4.1 Income Change, Normal versus Inferior Goods in 4.1	Quiz 2 due on 2/8 5 pm
	Wed	2/9/2022	Class Canceled by University	HW 1 due on 2/14, hand-in in class
Week 5	Mon	2/14/2022	Ch 4: Substitution Effect, Income Effect in 4.2 Elasticity of Demand in 4.3 Ch 4: Consumer Surplus and Demand in 4.4	Quiz 3 due on 2/15 5pm, HW 2 due on 2/23, hand-in in class
	Wed	2/16/2022	Review Session: Review of HW 1	
Week 6	Mon	2/21/2022	Ch 5: Expected Value and Variability and Decision Making in 5.1 Risk Aversion and Income, Risk Aversion, and Indifference Curves in 5.2 Riske and Indifference Curves in 5.4 Other variations: Leontief Preferences, and labor supply (the labor-leisure choice)	Quiz 4 due on 2/22 5pm
	Wed	2/23/2021	Class canceled by university	Hand-in HW 2
Week 7	Mon	2/28/2022	The Isocost Line, Choosing Inputs in 7.3	

			Peer Tutorial Session	
	Wed	3/2/2022	Application and summary of consumer and producer theory. Production with Two Variable Inputs in 6.3, Return to Scale in 6.4	Quiz 5 due on 3/3 5pm
	Thu	3/3/2022	Review and Q&A session (online)	
	Fri	3/4/2022	Extra Office Hour	
Week 8	Mon	3/7/2022	Exam 1	
	Wed	3/9/2022	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 3/10 5pm
Week 9	Mon	3/14/2022	Enjoy your Spring Break	
	Wed	3/16/2022	Enjoy your Spring Break	
			Asynchronies recorded class: Cost minimization in Appendix to chapter 7 The Cobb-Douglas Cost and Production Functions in Appendix to Ch7 (Post on Elearning)	
Week 10	Mon	3/21/2022	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 3/23, hand-in in class
	Wed	3/23/2022	Review Session: Review of HW 3	Quiz 7 due on 3/24 5pm
Week 11	Mon	3/28/2022	Other variation	HW 4 due on 3/30, hand-in in class
	Wed	3/30/2022	Review session: review of HW 4	
Week 12	Mon	4/4/2022	Exam 2 (not cumulative)	
	Wed	4/6/2022	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	Quiz 8 due on 4/7 5pm
Week 13	Mon	4/11/2022	Ch 11: First, Second and Third-Degree Price Discrimination in 11.2, Intertemporal Price Discrimination and Peak-Load Pricing in 11.3	Quiz 9 due on 4/12 5pm
	Wed	4/13/2022	Ch 11: Single Consumer in 11.4, Relative Valuations in 11.5	Optional Practice Question 4

Week 14	Mon	4/18/2022	Review of Optional Practice Question 4 Ch 11: Why Vertically Integrate? In Appendix to Chapter 11	Quiz 10 due on 4/19 5pm.
	Wed	4/20/2022	Ch 12: The Prisoners' Dilemma in 12.4 Ch 13: The Nash Equilibrium Revisited- The Prisoners' Dilemma in 13.3	
Week 15	Mon	4/25/2022	Ch 12: Competition versus Collusion: The Prisoner's Dilemma in 12.4, and more application	Final Quiz due on 4/26 5pm, Optional Practice Question 5
	Wed	4/27/2022	Ch 13: Tit-for-tat strategy in 13.4.	
Week 16	Mon	5/2/2022	Ch 13: Threats, Commitments, and Credibility in 13.6. Review Session: review of the Practice Question 5	
	Wed	5/5/2022	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. *
*	

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

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

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.

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.

Instead of exam 3, you have an option to do a case study. Details in:

https://docs.google.com/document/d/1WPHIleiFAb10EudhRGn2eMWegSTd5iRi6lyQ63 mTiUU/edit?usp=sharing

In case it fails to take you to the case study instruction, the file is also 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.	60%	False. The concept of XXX is defined as, so it means that in this statement the consumer
The answer includes deep analysis of the important concept or argument, and	70%	False. The concept of XXX is defined as, so it means that in

necessary calculation is attempted. In the analysis, there is major mistake.		this statement the consumer The statement is false because
The judgement is 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 Necessary calculations Conclusion with reasoning
The judgement is right. 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 Necessary calculations Conclusion with reasoning
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 Necessary calculations Conclusion with 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>.

## **Classroom Conduct Requirements Related to Public Health Measures**

UT Dallas will follow the public health and safety guidelines put forth by the Centers for Disease Control and Prevention (CDC), the Texas Department of State Health Services (DSHS), and local public health agencies that are in effect at that time during the Fall 2021 semester to the extent allowed by state governance. Texas Gov. Greg Abbott's Executive Order <u>GA-38</u> prohibits us from mandating vaccines and face coverings for UT Dallas employees, students, and members of the public on campus. However, we strongly encourage all Comets to get vaccinated and wear face coverings as recommended by the CDC. Check the <u>Comets United: Latest Updates webpage</u> for the latest guidance on the University's public health measures. Comets are expected to carry out <u>Student Safety</u> protocols in adherence to the Comet Commitment. Unvaccinated Comets will be expected to complete the <u>Required Daily Health Screening</u>. Those students who do not comply will be referred to the Office of Community Standards and Conduct for disciplinary action under the <u>Student Code of Conduct – UTSP5003</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 Student Code of Conduct.

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 <u>http://go.utdallas.edu/syllabus-policies</u> 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

2022 Spring we only have 19 students in the class. 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

4/11: On the sign-up sheet:

https://docs.google.com/spreadsheets/d/1cq6XTmQ8yBmAA2XIu6fDjnz\_i2Uaa7NVGIM UFIz-yrM/edit?usp=sharing

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 before the end of class on April 11th. Just make sure you let your teammates know. Also by the end of class on April 11th, if you have not put your name in any project, you need to take exam 3 to get the 25% of the score.

4/20: Before April 20th, you need to meet with me during office hours as a group to talk about your outline of the presentation. Outline checksheet in this file.

5/1: By the end of May 1st, 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.

5/5: By the end of May 5th, 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
Quality of your contents on the slides	30
Comments on other presentations	10
Presentation Skill	5
Outline check in office hour	5
Total	100 (to replace exam 3)

# 5. Grade

# 6. Outline checksheet

	Person 1	Person 2	Person 3
What concept(s) from after exam 2 are you using and hat concept(s) before exam 2 are you using?			
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?			

## 7. 7 cases

Cases can be found through:

https://hbsp.harvard.edu/import/919968

Make sure you purchase only the case you are interested in. And make sure you purchase through the coursepack because it is cheaper.

No.	Themes	Title
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1	Real Estate	Back to School: Real Estate Development of Off-Campus Student Housing
2	Environmental Policy	International Carbon Finance and EcoSecurities
3	Health Industry	When Competition Isn't Enough: Rural Health in Southwest Virginia
4	Sharing Economy	Uber Technologies, Inc.
5	Wireless Industry	T-mobile in 2013: The Un-Carrier
6	Streaming Industry	Is Netflix Building a House of Cards?
7	Antitrust	Amazon: Combatting Antitrust Litigations

# 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