## ECON 3357 Dr. Fidel Gonzalez

## Intermediate Microeconomics

### **Instructor Information**

Dr. Fidel Gonzalez Associate Professor Department of Economics and Intl. Business Sam Houston State University

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Office Hours: For this online class I will be available primarily by email. However, if you want to

meet with me in person send me an email to set and appointment or just stop by my office.

### **Course Information**

Meeting Place: Online Class Course Number: ECON 3357-01

Semester: Fall 2017 Credit Hours: 3

Webcam: We will be using "ProctorFree" for all exams so you will need a webcam and a microphone when taking all exams in this class. You do not need the webcam for homeworks, quizzes or for practice exams.

## **Tutoring**

There is free tutoring available in room SHB-108 Monday to Friday from 11.00am to 4.30 pm. Tutoring is done on a first-come first-serve basis.

### **Course Content**

Microeconomics is the study of basic economic theory of individuals and firms. The main idea of the course is to provide you with the tools and knowledge the world around. This is a conceptual class, that you will be taught main laws and characterizations of the microeconomic activity. The course will teach you theories and applied techniques that you can use for many years. You will develop economic intuition and think like an economist. The semester is divided into two big topics: consumer choice theory and firm theory. Consumer choice theory studies the way consumers decide to purchase different amounts of good. Firm theory deals with the way firms choose the level of production that maximizes profits. Some math is needed but I will teach it as we go along. At the end of the semester you will be able to:

- A) Consumer Behavior. Understand how consumer choose the best combination of goods given they can afford.
- B) Utility. Understand the concept of utility as the key of consumer behavior.

C) Firms behavior under the free markets. Understanding how firms choose the level of production that maximizes profits in a free economy.

# **Required Textbook**

Pindyck Robert and Daniel Rubinfield, "Microeconomics", 9th Edition, Pearson, 2018, ISBN: 9780134184241.

# **Assignments and Grading**

Grading will consist of the following three main categories only: exams, homework and quizzes.

### I. Exams

- 1) There will be three partial exams and one final exam.
- 2) Each partial test has a weight of 20% on your final grade for a total of 60%.
- 4) The final exam is comprehensive and mandatory and has a weight of 15% in your final grade.
- 5) To help you out, the final exam grade substitutes the lowest grade of your partial exams. For example, imagine that your grades in the partial exams are: 90, 85 and 65. Then you take the final and obtain a grade of 75. In this case, the grade of 65 in your lowest partial exam is substituted for a grade of 75 and that 75 has a weight of 35% in your final grade (15% from the final exam and 20% from the partial exam). If the final exam grade is no better than any of your partial exam grades your lowest exam grade will not be substituted, you will keep your old higher grade and the final exam grade will count only for 15% of your final class grade.
- 6) I will post a practice test before each partial exam and you can get extra credit points in the actual exam for doing the practice exam (see below for details).
- 7) See the class calendar for each exam date. Exams will be open for about a week. You can take it anytime during that time period. However, you must take it in one sitting, you will have 75 minutes to complete each exam. Once you start you cannot pause the clock. Make sure that you will not be interrupted during your exam.
- 8) EACH EXAM IS DUE AT MIDNIGHT OF THE RESPECTIVE DUE DATE.
- 9) We will be using "ProctorFree" for all exams so you will be need a webcam and a microphone when taking exams in this class. The step-by-step instructions for ProctorFree are on Blackboard.
- 10) The exams are closed notes, you cannot use the textbook, lecture notes or videos, cell phones (or communication devices), tablets, google or any other help during the exam, just like a face-to-face exam. You cannot leave the room or have other people in the same room while taking the exam.

### II. Homework

- 1) There will be six homework sets.
- 2) The homework set will be similar to the midterms.
- 3) The main purpose of the homework is to better prepare you for the partial exams and to familiarize you with the material.
- 4) The homework will be posted on Blackboard and you MUST input your answers online (do not email me the answers).

- 5) You will have about a week to work on each homework. In the class calendar you will see when the each homework is posted and the due date. You can save your work on and come back later to finish the homework. However, make sure that you submit your answers by the due date.
- 6) EACH HOMEWORK IS DUE AT MIDNIGHT OF THE RESPECTIVE DUE DATE.
- 7) Because the homework is online, you will have two attempts for each homework and I will only count your highest grade of those two attempts. However, you must submit the homework before the due date and time. Right after submitting your first attempt you can see your grade, the questions, your answer and the correct answer for each question in the homework. You can use this information to study and take the homework again. When you take it again a new set of questions will show up and you can use your previous attempt to study and answer the second attempt. After you submit your second attempt you will be able to see your grade, the questions, your answer and the correct answer for each question in that attempt as well. You can save your homework and come back later in both attempts so you do NOT have to do it in one sitting. Remember, I will only count your highest grade out of those two attempts as your grade for that homework. For example, imagine that you take Homework 1 and you get 70 in the first attempt and 85 in the second attempt, then your grade in Homework 1 is 85.
- 8) Homework will be graded from 0 to 100. If you do not input your answers before the due date and time you get a zero.
- 9) When calculating your final grade, I drop your lowest homework grade and then calculate your homework average.
- 10) The homework average (without the lowest grade) has a weight of 20% in your final grade.
- 11) There is NO ProctorFree for the homework assignments.

### III. Quizzes

- 1) There will be a total of six guizzes in the semester.
- 2) The main purpose of the quizzes is to make sure that you are following the material so they have a small weight on your final grade.
- 3) Each quiz consists of two or three easy questions about the most important topics of the previous topic covered (see the class calendar). That is, the quiz covers the one topic that is posted right above it in the class calendar. Do not stress about the quizzes too much, if you study the material you should be able to get a good grade.
- 4) Quizzes will be posted online and you MUST input your answers online (do not email me the answers).
- 5) You have about a week to take the quiz but the quiz itself is timed so that you only have 15 minutes to complete it. In the class calendar you will see when each quiz is posted and the due date. Make sure that your answer it before the due date.
- 6) Quizzes will be graded from 0 to 100. If you do not take the quiz you get zero.
- 7) When calculating your final grade, I drop your lowest quiz grade and then calculate your quiz average.
- 8) The quiz average (without the lowest grade) has a weight of 5% in your final grade.
- 9) There is NO ProctorFree for the quizzes.

### SUMMARY OF GRADING ITEMS AND WEIGHTS

Exam 1	20%
Exam 2	20%
Exam 3	20%
Homework Average (w/out lowest grade)	20%
Quiz Average (w/out the lowest grade)	5%
Final Exam*	
Total	100%

<sup>\*</sup>If the your Final Exam grade is higher than you lowest exam grade then your final exam grade will be used as your lowest grade for a total weight of 35% and your lowest partial exam grade will be dropped

# **Answers to assignments**

Every assignment (Exam, Homework, Practice Exam, Quiz) is different for each student. Because of this, after you have submitted your assignment you will be able to see your score, your answer and the correct answer for every question in your assignment. This means that you DO NOT HAVE to wait until the due date to see the answers. You can access this information any time after you have submitted your assignment by going to "My Grades" and clicking on the grade for that assignment.

# **Late Assignment and Make-up Policy**

I understand that life happens during the semester but I also want to be fair to everyone else. So, I am trying to balance things out. If you cannot take an exam on time because of a medical or family emergency, some kind of University athletic activity or other justifiable reason then let me know and I will allow you to take it earlier without any penalty (within a reasonable timeframe). However, be prepared to show me some documentation to substantiate your claim. This for when things get real, so I went out and party because the Texans won does not count, unless you get hurt celebrating, then it counts. In any case, talk to me and we can figure something out.

If you just forgot an assignment was due then you will get a zero. This may sound harsh but it really is not. Remember that you can drop one homework. You can also drop one partial exam and then the final exam is 35% of your class grade.

### **Extra Credit Practice Exams**

You can also get extra points in the partial exams by doing the corresponding Partial Exam. The practice exam is posted before each partial exam and it is similar (although not the same) to the actual test. I know that if you work on the practice exam you will do better in the actual test, so I am doing this to incentivize you to work on the practice exam.

In the class calendar you can see when each practice exam will be posted and when it closes.

This is how it works (read it carefully, it's not the usual blah, blah):

- 1) You can take the Practice Exam as many times as you want but I will only consider the highest grade you get in all of your attempts to give you extra points.
- 2) Each Practice Exam has 25 questions each worth 4 points. This is the same as in the actual partial exams.
- 3) If your highest grade out of all your attempts is between:

60 to 69 you get 1 extra point in the actual test,

70 to 79 you get 2 extra point in the actual test,

80 to 89 you get 3 extra points in the actual test,

90 to 99 you get 4 extra points in the actual test,

100 you get 5 extra points in the actual test,

- 4) Once you have finished each attempt of the Practice Exam you can check your answers and the correct answers by going to "My Grades" and clicking on your grade (the same way you would check it for the other assignments).
- 5) Every time you take the Practice Exam a new set of questions will be drawn randomly from a pool of questions. Therefore, you will see slightly different questions every time you take it.
- 6) You have up to 75 minutes to finish each attempt. Each attempt must be finished in one sitting. That means you cannot pause or stop the clock. To be fair to everyone, once the 75 minutes are up the practice exam will be automatically submitted if you have not submitted it yet.
- 7) Practice Exam will remain open until the due time and date as the actual exam.
- 8) The Practice Exam is under the "Extra Credit Practice Exams" unit.
- 9) Please notice that these are extra credit points, if you do not want to do it, it is ok and it will not lower your Exam grade. This is just to help you.
- 10) You DO NOT NEED PROCTORFREE FOR THE PRACTICE EXAMS.

Please remember, that there is no penalty for taking the Practice Exam multiple times. In fact, I want to encourage you to take it as many times as possible. The more practice you get the better prepared you will be for the actual test.

Example: Alex takes the Practice Exam 2 four times and he gets the following scores: 50, 78, 90, 60. This means that Alex will get 4 extra points added to this Exam 2 grade because the highest grade in all of his attempts is a 90. Then, Alex takes the actual Exam 2 and gets a grade of 86. In this case, the Total Exam 2 Grade for Alex is 86 + 4 = 90 for a letter grade of "A".

# **Extra Credit Points for Completing Teaching Evaluations**

We have noticed that many students forget to do the teaching evaluations at the end of the semester. In order to incentivize you to do it, I have decided that if at least 65% of the class have completed the teaching evaluation by the last class day then EVERYONE in the class GETS ONE EXTRA POINT in their final class grade.

This guarantees the anonymity of the evaluation because I will not know who responded all I know is the percentage of people that have filled out the teaching evaluation. Also, remember that we get the teaching evaluations about two weeks before the end of the semester. I will send a reminder once it is open.

### Final Numerical and Letter Grade.

The final numerical grade is calculated as follows:

Once I obtain the final numerical I will assign a letter grade using the following table. Please note that there is no curve in the final numerical grade.

Final Numerical Grade	Final Letter Grade
90 to 100	A
80 to 89	В
70 to 79	С
60 to 69	D
Less than 60	F

# **Important Dates**

Exam 1 From September 18<sup>th</sup> to September 25<sup>th</sup>
Exam 2 From October 16<sup>th</sup> to October 23<sup>rd</sup>
Exam 3 From November 25<sup>th</sup> to December 1<sup>st</sup>
Final Exam From December 2<sup>nd</sup> to December 7<sup>th</sup>

### **Email and Phone**

During the semester I will be sending emails to the students in the class. These emails go from reminders about assignments to clarifications to the lecture notes or if I add additional material. The emails are sent to your SHSU account, make sure that you have a working SHSU email.

If you usually use another email account like yahoo or gmail please remember that you can forward your SHSU email to your external email account. Please, check the following link where tells you step-by-step how to forward your SHSU email to your external account:

http://www.shsu.edu/~ucs\_www/tech\_tutorials/SHSUTechTutorials/OWA\_forward\_email.html

# Frequently Asked Questions (FAQs)

In the class website there is a section called FAQs where I have posted frequently asked questions with their respective answers. Please, feel free to check them out and let me know if you have more questions. I will email the class when a new FAQ is posted. Newly added FAQs will be shown with a "NEW!!!" sign next to them.

# Academic dishonesty, students with disabilities, visitors to the classroom and religious holiday policies.

I will follow the University's policies for academic dishonesty, students with disabilities, visitors to classroom and religious holidays posted in the following link: <a href="http://www.shsu.edu/syllabus">http://www.shsu.edu/syllabus</a>

# **Economics Department's Webpage**

Whenever you have some free time go to the Department of Economics website where you can find updated information about our department, resources for students, information about scholarships, study abroad programs and much more.

Economics Department webpage: <a href="http://www.shsu.edu/academics/economics-and-international-business/">http://www.shsu.edu/academics/economics-and-international-business/</a>

# SUMMARY OF MANDATORY AND EXTRA CREDIT ASSIGNMENTS

Mandatory Assignments					
Assignment	Weight in Final Grade	Number of Questions	Time Limit	Purpose	
Exam 1	20%	25 each worth 4 points	75 minutes	Test your knowledge of the material	
Exam 2	20%	25 each worth 4 points	75 minutes	Test your knowledge of the material	
Exam 3	20%	25 each worth 4 points	75 minutes	Test your knowledge of the material	
Final Exam*	15%	25 each worth 4 points	75 minutes	Test your knowledge of the whole semester.	
Homework Average (without lowest grade)	20%	Usually 25 but it may vary from homework to homework	No time limit but must be submitted by due date and time (see class calendar)	Prepare you for the exams.	
Quizzes	5%	About 2 to 3 questions	15 minutes	Assure that you are following with the class material	
Total	100%				

<sup>\*</sup>If your Final Exam grade is higher than your lowest exam grade then your final exam grade will be used as your lowest grade for a total weight of 35% and your lowest partial exam grade will be dropped.

Optional Extra Credit Assignments				
Extra Credit Practice Exam	If you highest grade in all of your submissions of the Practice Exam is between 60 to 69 you get 1 extra point in the actual test; 70 to 79 you get 2 extra points; 80 to 89 you get 3 extra points; 90 to 99 you get 4 extra points; 100 you get 5 extra points.			
Teaching Evaluation Response Rate	1 point in your final class grade if 65% of the class fills out the teaching evaluations at the end of the semester.			

### CLASS CALENDAR

Topics with marked with \* are longer and bit harder than the rest so you should try to put more time and effort.

Topic 1. Review of Microeconomics Principles

From Aug. 23rd to Aug. 30th

Quiz 1: Post August 26<sup>th</sup> (Covers Topic 1) Quiz 1: Due September 3<sup>rd</sup>

Topic 2. Consumer Choice Theory: Introduction

From Aug. 30th to Aug. 31st

Topic 3. Consumer Choice Theory: Budget

From Aug. 31st to Sept. 7th

Quiz 2: Post September 3<sup>rd</sup> (Covers Topics 2 to 3) Quiz 2: Due September 10<sup>th</sup>

Homework 1: Post September 3<sup>rd</sup> (Covers Topics 1 to 3)

Homework 1: Due September 10<sup>th</sup>

\*Topic 4. Consumer Choice Theory: Preferences

From Sept. 8th to Sept. 18th

Homework 2: Post September 10<sup>th</sup> (Covers Topics 3 to 4)

Homework 2: Due September 17<sup>th</sup>

Extra Credit Practice Exam 1 available from September 18<sup>th</sup> to September 25<sup>th</sup>

Exam 1: September 18th to September 25th (includes Topics 1 to 4)

\*Topic 5. Consumer Choice Theory: Utility

From Sept. 26th to Oct. 5th

Quiz 3: Post October 1<sup>st</sup> (Covers Topic 5) Quiz 3: Due October 8<sup>th</sup>

Homework 3: Post October 1<sup>st</sup> (Covers Topic 5) Homework 3: Due October 8<sup>th</sup>

\*Topic 6. Consumer Choice Theory: Optimal Consumer Choice

From Oct. 6th to Oct. 17th

Quiz 4: Post October 9<sup>th</sup> (Covers Topic 6) Quiz 4: Due October 16<sup>th</sup>

Homework 4: Post October 9<sup>th</sup> (Covers Topic 6) Homework 4: Due October 16<sup>th</sup>

Topic 7. Consumer Choice Theory: Demand

From Oct. 17th to Oct. 20th

Extra Credit Practice Exam 2 available from October 16<sup>th</sup> to October 23<sup>rd</sup>

Exam 2: October 16<sup>th</sup> to October 23<sup>rd</sup> (includes Topics 5 to 7)

Topic 8. Consumer Choice Theory: Income & Substitution Effect

From Oct. 24th to Oct. 30th

\*Topic 9. Firm Theory: Introduction & Production Technology

From Oct. 30th to Nov. 14th

Quiz 5: Post October 30<sup>th</sup> (Covers Topic 8 to 9)

Ouiz 5: Due November 6<sup>th</sup>

Homework 5: Post October 30<sup>th</sup> (Covers Topics 8 to 9) Homework 5: Due November 6<sup>th</sup>

# Topic 10. Firm Theory: Costs

From Nov. 7th to Nov. 14th

Quiz 6: Post November 11<sup>th</sup> (Covers Topic 10) Quiz 6: Due November 19<sup>th</sup>

## Topic 11. Firm Theory: Optimal Production Choice and Supply

From Nov. 14th to Nov. 26th

Homework 6: Post November 13<sup>th</sup> (Covers Topics 10 to 11) Homework 6: Due November 26<sup>th</sup>

Extra Credit Practice Exam 3 available from November 25<sup>th</sup> to December 1<sup>st</sup>

Exam 3: November 25th to December 1st (covers Topics 8 to 11)

Final Exam: December 2<sup>nd</sup> to December 7<sup>th</sup> (covers Topics 1 to 11)

### Outline

### 1. Review of Microeconomic Principles (Textbook Chapter: 2)

- 1. Demand and Quantity Demanded definition
- 2. Demand in a table, graph and equation.
- 3. Law of Demand
- 4. Determinants of Demand
- 5. Changes in Demand vs changes in the Quantity Demanded
- 6. Supply and Quantity Supplied definition
- 7. Supply in a table, graph and equation
- 8. Law of Supply
- 9. Determinants of Supply
- 10. Changes in Supply vs changes in the Quantity Supplied

# Topic 2. Consumer Choice Theory: Introduction (Textbook Chapter: 3)

- 1. Consumer behavior
- 2. Main assumption
- 3. Best and preferences
- 4. Afford and budget

### Topic 3. Consumer Choice Theory: Budget (Textbook Chapter: 3)

- 1. Budget Equation
- 2. Equation of the line
- 3. Budget Line Equation
- 4. Budget Line
- 5. Interpretation of the slope and intercept of the budget line
- 6. How changes in Income and Prices affect the budget line
- 7. How taxes affect the budget line and the budget equation

### Topic 4. Consumer Choice Theory: Preferences (Textbook Chapter: 3)

- 1. Notation
- 2. Bundles, Weakly Preferred, Strongly Preferred and Indifference
- 3. Five assumptions about preferences
- 4. Indifference curves (IC)
- 5. Types of indifference curves.
- 6. Slope of the IC
- 7. Marginal Rate of Substitution
- 8. Diminishing MRS
- 9. Curvature and convexity
- 10. Weird ICs

## Topic 5. Consumer Choice Theory: Utility (Textbook Chapter: 3)

- 1. Definition of Utility
- 2. Utility formula
- 3. Ordinal numbers
- 4. Utility and the ICs
- 5. Utility Functions
- 6. Marginal Utility
- 7. Marginal Utility and MRS
- 8. Commuting example

### Topic 6. Consumer Choice Theory: Optimal Consumer Choice (Textbook Chapter: 3)

- 1. Optimal consumer choice graphically.
- 2. Optimal choice condition equation.
- 3. Optimal choice for perfect substitutes.
- 4. Optimal choice for perfect complements.
- 5. Examples.

### Topic 7. Consumer Choice Theory: Demand (Textbook Chapter: 4)

- 1. From optimal consumer choice to the demand curve
- 2. Price-consumption curve
- 3. Income-consumption curve
- 4. Engel curve
- 5. Normal and inferior goods
- 6. Income and Substitution Effect.
- 7. Effect of taxes on the consumer's well being.

## Topic 8. Consumer Choice Theory: Income and Substitution Effect (Chapter: 4)

- 1. Change in the price of the good.
- 2. Substitution effect.
- 3. Income effect.
- 4. Effect of taxes on consumer's well-being.
- 5. Distortions from taxes.

# Topic 9. Firm Theory: Introduction and Production Technology (Textbook Chapter: 6)

- 1. Problem of the firm
- 2. Profit maximization
- 3. Revenues and cost
- 4. Production inputs
- 5. Production function
- 6. Isoquant properties
- 7. Type of Isoquants
- 8. Slope of Isoquant and Marginal Rate of Technical Substitution (MRTS)
- 9. Marginal Product of Capital and Marginal Product of Labor
- 10. Substitution between Capital and Labor and the Isoquant

### Topic 10. Firm Theory: Costs (Textbook Chapter: 7)

- 1. Firm's problem
- 2. Cost Equation
- 3. Isocost equation and Isocost line

### Topic 11. Firm Theory: Optimal Production Choice and Supply (Textbook Chapter: 8)

- 1. Maximizing profits and minimizing costs
- 2. Isoquants and Isocost together
- 3. Profit maximizing condition
- 4. Interpretation of the profit maximizing condition
- 5. Optimal choice for perfect substitutes and perfect complements
- 6. Examples