## New Jersey Institute of Technology

#### Econ 265-102 Microeconomics

Semester: Spring 2019

Instructor: Dr. Porchiung Benjamin Chou

Days/Times: Wednesday 6:00 pm – 9:05 pm

Classroom: KUPF 208

Office: Central Ave. Building, Room 4036

Telephone: 973-642-4177

Office Hours: Thursday 2:00 pm - 5:00 pm, or by appointment for other times

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## **Course Description:**

This is an introductory course of microeconomics that provides a broad range of models in microeconomics. In addition to the materials covered in the textbook, other topics will also be introduced, such as game theory, time value of money, economics of uncertainty, and economics of information. As this course covers many topics, it is critical that students keep up with the readings and supplemental materials all the time.

#### **Prerequisite:**

Students need to have some mathematical abilities to do well in this class, such as the familiarity of high school algebra, and some basic concepts of calculus, such as Math 135.

## Aplia with the Digital Textbook:

Aplia, which has a digital version of the textbook, is used for this course. Students do not need to buy the additional physical textbook unless they want to have one. However, having a physical textbook may make it easier for some students to follow the lectures in the classroom. The textbook is *Microeconomics for Today*, 10th edition, by Irvin B. Tucker, Cengage Learning.

#### **Online Assignments:**

There are usually assignments due at 6:00 p.m. before each class. Students can finish the assignment at any time before the deadline. There is no extension of the deadline unless there are extreme situations. Students can try the questions in Aplia up to three times. The score of each question is the average of all three attempts. Any assignments completed after the deadlines will receive zero points.

### How to access your Aplia course

ECON 265-102 Spring 2019

**Instructor:** Porchiung Chou **Start Date:** 01/22/2019

# What is Aplia?

In the last 15 years, more than two billion answers have been submitted through Aplia, the premier online assignment solution. Millions of students use Aplia to better prepare for class and for their exams. Join them today!

### Registration

- 1. Connect to <a href="https://www.cengage.com/dashboard/#/course-confirmation/SZ94-H6AX-E9ZH/initial-course-confirmation">https://www.cengage.com/dashboard/#/course-confirmation/SZ94-H6AX-E9ZH/initial-course-confirmation</a>
- 2. Follow the prompts to register for your Aplia course. Please use your NJIT email address to register.

## **System Check**

To check whether your computer meets the requirements for using Aplia, go to <a href="https://www.aplia.com/support/sysreq.jsp">https://www.aplia.com/support/sysreq.jsp</a>

#### **Supplemental Materials:**

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Students can watch free videos to improve their understanding, such as Jodi's Videos (Microeconomics 101) at <a href="http://www.youtube.com/playlist?list=PL22785443C5FB0F83">http://www.youtube.com/playlist?list=PL22785443C5FB0F83</a>, (Macroeconomics 101) at <a href="http://www.youtube.com/playlist?list=PL82B772CE0EF7C618">http://www.youtube.com/playlist?list=PL82B772CE0EF7C618</a>, or ACDC videos at

https://www.bing.com/videos/search?q=acdc+economics+videos+youtube&view=detail&mid=6 29CA9D4128ADE3DD361629CA9D4128ADE3DD361&FORM=VIRE.

#### **Exams:**

There are three exams – two midterm exams and one final exam. The materials in the exams are not cumulative, but the early topics may become the foundations for the later topics. If a student must miss an exam due to unavoidable reasons, the student needs to contact me as soon as possible *before* the exam. If I do not hear from the student in advance, there can be penalty for the make-up exam.

### **In-class Quiz & Class Attendance:**

In most of the classes, there will be an in-class quiz of multiple choices. Some questions will be similar to the Sample Quiz questions at the end of each chapter, while others are calculation questions. Some materials will be immediately tested during the same class after they are covered. To do well in the quiz, students need to review the materials covered in the previous lecture, pay attention to the current lecture, and *preview* the new materials, including the Sample Quiz questions at the end of each chapter. Although make-up quizzes are usually allowed before quizzes are returned, if a student misses more than *five* quizzes, the students will lose the privilege to make up for any more missed quizzes. I will also cover materials beyond the textbook, which will also be tested in the exams. Therefore, the attendance of students in *every* class is strongly recommended since the opportunity cost of missing a class is very high.

## **Grading:**

Grades are calculated based on the attendance and *class participation* (5%), Aplia's online assignments (about 20%), in-class quizzes (20%), the first midterm (20%), the second midterm (20%), and the final exam (20%). However, all the efforts must be made during the semester. There is no extra assignment for students to do to improve their grades after the students take the final exam. The grade (G) of a student is determined by the sum (S) of all these scores in the following way:

If 
$$S < 55\%$$
,  $G = F$ .  
If  $55\% \le S < 65\%$ ,  $G = D$ .

If  $65\% \le S < 75\%$ , G = C.

If  $75\% \le S < 81\%$ , G = C+.

If  $81\% \le S < 87\%$ , G = B.

If  $87\% \le S < 93\%$ , G = B+.

If  $93\% \le S$ , G = A.

#### **Pre-communication:**

It is important for the students to be proactive. If you have any questions or difficulty in learning the materials, please come to see me as soon as possible during my office hours. If you cannot make it during my office hours, please e-mail me to make an appointment for other times. There are also economics tutors available. Please contact me if you need help.

#### **Honor Code:**

"Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at:

http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu"

### **Approximate Course Outline:**

Week 1 (January 23)

Review of the Syllabus

Chapters 1: Introducing the Economic Way of Thinking

Appendix 1: Applying Graphs to Economics

Chapter 2: Production Possibilities, Opportunity Cost, and Economic Growth

# Week 2 (January 30)

Chapter 2: Production Possibilities, Opportunity Cost, and Economic Growth

Chapter 3: Market Demand and Supply

## Week 3 (February 06)

Chapter 3: Market Demand and Supply

Jodi: Microeconomics #18 (Horizontal Addition)

Chapter 4: Markets in Action

Jodi's Videos, Microeconomics # 33, 34 for price ceiling and # 35, 36 for price floor

## Week 4 (February 13)

Jodi: Microeconomics #29 (Elasticity Part 3)

Jodi's Videos for Point Elasticity of Demand at

http://www.youtube.com/watch?v=Mwbm396AV84&list=SP632FE3548976C989&index=2

Chapter 5: Price Elasticity of Demand and Supply

Jodi: Microeconomics #31 (Elasticity Part 4) #45 (General Rules about Taxes Part 1) for Tax Incidence

Chapter 6: Consumer Choice Theory

Appendix to Chapter 6: Indifference Curve Analysis

Jodi: Microeconomics #71, 72, 73, 74

### Week 5 (February 20)

Chapter 6: Consumer Choice Theory

Appendix to Chapter 6: Indifference Curve Analysis

Income Effect vs. Substitution Effect at http://www.youtube.com/watch?v=POSU3mM0jTY

Jodi: Microeconomics #56 (Introduction to Public Goods, Common Resources, and Club Goods)

Midterm I Part A or Part B

Midterm I Part A or Part B

# Week 6 (February 27)

**Chapter 7: Production Costs** 

Chapter 8: Perfect Competition

### Week 7 (March 06)

Chapter 8: Perfect Competition

Chapter 9: Monopoly

Appendix to Chapter 3: Consumer Surplus, Producer Surplus, and Market Efficiency

Jodi: Microeconomics # 48, 49 for welfare analysis

## Week 8 (March 13)

Chapter 10: Monopolistic Competition and Oligopoly

Chapter 11: Labor Markets

http://www.youtube.com/watch?v=R-VCNJKsvwg

## Week 9 (March 27)

Chapter 11: Labor Markets

Midterm II Part A or Part B

Midterm II Part A or Part B

## Week 10 (April 03)

Introduction to Game Theory

Jodi: Microeconomics #69, 70 (Game Theory Parts 1&2) for Nash equilibrium and the meeting game

Sequential game

http://www.youtube.com/watch?v=1fIM78Gs0Ak&feature=related

## Week 11 (April 10)

Finitely Repeated Game

http://www.youtube.com/watch?v=R-EYyqRazms&feature=relmfu

The ultimatum game

http://www.youtube.com/watch?v=xpkxLKV 3d0

Chapter 15: International Trade

#### Week 12 (April 17)

Chapter 15: International Trade

http://www.youtube.com/watch?v=zhD--UeRiOI

Introduction to Financial Economics – Time Value of Money

http://www.investopedia.com/articles/03/082703.asp

http://www.youtube.com/watch?v=BXm5mZqMp6Y&feature=related

## Week 13 (April 24)

Introduction to Financial Economics – Time Value of Money

Chapter 12: Income Distribution, Poverty, and Discrimination

Jodi: Macroeconomics #19, 20 for Lorenz Curve and Gini Coefficient

## Week 14 (May 01)

Chapter 13: Antitrust & Regulation

Chapter 14: Environmental Economics

Jodi: Microeconomics #53, 54, 55 (Cap and Trade Parts 1, 2, 3)

Introduction to Economics of Uncertainty – Risk Aversion and Risk Premium

Introduction to Economics of Information – Moral Hazard and Adverse Selection

**Note:** The course outline is subject to change. Although the sequence of the chapters will not change, some chapters can go longer or shorter than the class times listed above. Because of this, the exam dates are also subject to change, which will be announced in the classroom. Students

are responsible for showing up in every class to obtain the updated information and additional materials beyond the textbook that will also be tested in the exams.

## **Learning Goals/Outcomes:**

To understand the concept of opportunity cost and sunk cost, and how to apply the marginal analysis to the decision making process to use resources efficiently.

To be able to apply market supply and demand curves to analyze different markets, and understand the differences between the movements and shifts of the demand and supply curves as well as the determinants that cause these changes.

To understand how different elasticities can be applied to the decision/policy making process for the consumers, producers, and the government.

To understand how consumers maximize utility subject to the budget constraints, and how producers maximize profits in the short run and in the long run.

To understand the different characteristics of market structures, namely, perfect competition, monopoly, oligopoly, monopolistic competition, the labor market and monopsony, and their implications.

To understand the basic concepts of cooperative game theory and non-cooperative game theory, and their applications in different contexts.

To understand why free trade is efficient and the perspectives of protectionism.

To understand the concept of time value of money and how it matters to the decision making process in using resources efficiently.

To understand the importance of income inequality or variance and its implications to decision/policy making process.

To understand the history and the development of the anti-trust laws in the USA.

To understand how to apply marginal analysis to the environment, as well as the policy instruments to achieve policy goals.

To understand the concept of risk aversion and decision making under uncertainties.

To understand the issues of asymmetric information, such as moral hazard and adverse selection.