## 180.102 Elements of Microeconomics (Summer 2021) (Updated 05/29/2021)

### **Instructor Information**

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### **Contact Time**

8:15-10:00pm (M/T) and 9:00-10:45am (W/Th) from Jun.1 to Jul.2 Attendance is optional. Lectures will be recorded and made available online. Zoom: 937-5247-8502 (password: jhuecon102, or click the <u>link</u>) Office hours: By email appointment. (Weekends are fine)

## **Course Introduction**

This course provides an introduction to the fundamental microeconomic principles to students with no prior background in economics. After a general introduction on the motivations of economics, we will start the course with a discussion on *rationality*, including its meanings and implications on the optimal choices of consumers and producers. We will then derive the market supply and demand curves and analyze the *equilibrium* outcomes of markets. Using the basic supply-demand tools we will analyze the *welfare* effects of various government policies, including taxation, subsidy, price control, regulations against *externality*, etc. Next we will move on to study various types of *market structures* where firms and consumers interact. We will see how market outcomes change when the market is competitive or not and will discuss the effectiveness of antitrust policies. In the end of the course, we will briefly touch on the frontiers of microeconomics, including game theory, markets under asymmetric information, and the challenges of drawing economic inference using real world data.

Since most audience of the course are from majors other than economics, I will focus on *width* instead of *depth* when preparing the course materials. I will provide a lot of real world cases, hoping that you will have a better understanding of how economic principles could apply in the real life.

#### Prerequisite

This course requires no prior knowledge of economics and the minimum level of mathematics: basic understanding of high school algebra is sufficient to take the course. Some related math concepts that are not covered in high school will be explained thoroughly through this course. Calculus is not required, though it is helpful to know how to take derivatives of a function. (We will touch on that, too.)

## Textbook

Any version of Gregory Mankiw's *Principles of Microeconomics*. (I will not assign textbook questions in homework or exams.) Lecture slides are the primary reference.

# Evaluation

- (1/6 weight) 4 weekly homework sets. Each homework set is assigned on Thursday and due on the next Tuesday. You could work in teams with up to 3 members. I will provide feedbacks to homework sets but will not grade them; any submission that (i) attempts all questions, (ii) is on time, and (iii) does not plagiarize will automatically get full grade. Mistakes will therefore not affect your homework grades. Homework is intended to familiarize yourself with the materials covered in class, so there is no point in grading homework based on correctness.
- (1/6 weight) A two-page essay. In this essay you will be analyzing a real world case (phenomenon) using economic principles you learned from this course. You could also work in teams with up to 2 members. You are highly encouraged to find a topic that relates to your major. Any submission that is on time and does not plagiarize will automatically get 70% points, and the remaining 30% points will be evaluated based on (i) how interesting the topic is, (ii) how well the economics principles connect to the topic you choose, and (iii) the quality of writing. I will request that you send me your topic (one sentence is fine) by the end of Week 3 so that I could let you know my feedbacks early on.
- (1/3 weight) Midterm exam on Jun.17.
- (1/3 weight) Final exam on Jul.2. Exams will include multiple choice questions, true/false questions, analytical questions, and calculation questions, all of which will resemble homework questions, but no identical homework questions will appear again in exams.
- Both exams are 2-hour long and closed-book. You will be given a 24 hour time window to complete the exam. During the exam, you are required to log into a Zoom meeting and turn on the camera. The video of the entire exam will be recorded and kept strictly confidential, and it will be deleted after the course finishes.
- Class participations will be evaluated in midterm and final exams in the format of multiple choice questions; as long as you watched each lecture, you will immediately know the correct answer.

## **Grading Scheme**

• The following table shows how original numerical grades translate into letter grades.

Original Grade	Letter Grade	Original Grade	Letter Grade	Original Grade	Letter Grade
80~100	A/A+	64~66	B-	52~54	D+
75~79	A-	61~63	C+	50~51	D
70~74	B+	58~60	С	0~49	F
67~69	В	55~57	C-		

- Original grades will be rounded up to the nearest integer, e.g. 79.1 will be rounded up to 80.
- The exams are written in a way such that no additional "curving" is necessary. Under exceptional circumstances, I might curve your grades upward, but in no cases will I adjust your original grades downward.

# Schedule of the Course (TBD)

Date	Lec.	Торіс	Homework	Textbook Reference	
Jun.1	1	Introduction: the Scope of Economics		Mankiw Ch.1-2	
Jun.2	2	Rationality and Consumer Choice (I)			
Jun.3	3	Rationality and Consumer Choice (II)	HW1 Announced	Mankiw Ch.21	
Jun.7	4	Production, Comparative Advantage, and Trade		Mankiw Ch.3, 9	
Jun.8	5	Market Supply and Demand, Equilibrium, and Welfare	HW1 Due (11:59pm)	Mankiw Ch.4, 7	
Jun.9	6	Regulation Policies and Their Welfare Effects		Mankiw Ch.6.1	
Jun.10	7	Elasticity, Taxation, and Welfare	HW2 Announced	Mankiw Ch.5, 6.2, 8, 12	
Jun.14	8	Externality, Government Intervention, and Welfare		Mankiw Ch.10.1-10.2	
Jun.15	9	Coase Theorem and Bargaining	HW2 Due (11:59pm)	Mankiw Ch.10.3, 11	
Jun.16	10	Cost Curves and Firm Choice		Mankiw Ch.13	
Jun.17		Midterm Exam (Covering Lecture 1 through 9)	HW3 Announced		
Jun.21	11	Perfectly Competitive Markets		Mankiw Ch.14	
Jun.22	12	Monopolistic Markets	HW3 Due (11:59pm)	Mankiw Ch.15.1-15.3	
Jun.23	13	Price Discrimination		Mankiw Ch.15.4	
Jun.24	14	Game Theory: a Gentle Intro	HW4 Announced	Mankiw Ch.17	
Jun.28	15	Oligopoly	HW5 and Solution Announced	-	
Jun.29	16	Market Power: Policy Discussions	HW4 Due (11:59pm)	Mankiw Ch.15.5, 17.3	
Jun.30	17	Asymmetric Information		Mankiw Ch.22.1	
Jul.1	18	Data, Causal Inference, and Economic Development: a Conclusion of the Course			
Jul.2		Final Exam (Covering Lecture 10 through 18)			

Textbook chapters refer to Mankiw 7th or 8th version. If you are using other versions, the chapter numbers can be different. The actual lectures do not cover everything listed in the reading reference. The reading reference does not cover everything discussed in class, either.