## Intermediate Microeconomics Theory Econ 303-Section 02, Spring 2020

Tuesdays-Thursdays 2:00 - 3:20 PM

**TYLER 123** 

Instructor	Safoora Javadi	E-mail	<u>sjavadi@wm.edu</u>
Office	Tyler Hall 441	Office Hours	Wednesdays 1:30-4:30 pm

NOTE: The scheduled office hours are times during which I will be available to meet with students on a walk-in basis. Students are also invited to contact me to set up special appointments at other time (attendance mandatory).

#### **Course Description**

*Microeconomics* is the analysis of decisions by individual consumers, workers, and firms and of equilibrium outcomes that result from them. This course will introduce the major concepts, models, and results from this field. Once students master these tools, they can apply them to a wide range of practical problems, real-world decisions, and public policy issues. The class thus forms a foundation (and is a pre-requisite) for most upper-level coursework in economics, including public finance, industrial organization and game theory, labor and health economics, economic development, international trade, and urban and environmental economics.

#### **Required Textbook**

Perloff, Jeffrey M. 2018. Microeconomics, 8th edition. New York: Pearson.

# NOTE: It is NOT essential to use the most recent edition. Older editions are likely to be much less expensive, and they are equally good for the purposes of this class

#### Requirements

Students should have completed Econ 101 or 151. I will assume a basic vocabulary of economic terms and concepts. I will describe how to approach certain problems using calculus but will not assume you have a background in calculus. In situations on problem sets or exams where calculus may be helpful, I will provide assistance with taking derivatives or integrals.

## **Course Evaluation**

Your grade will be based on two midterm exams (each 25 percent), a final exam (30 percent), homework (15 percent), and class participation (5 percent).

Components	Points	Notes
Class Participation 50		- Attendance and promptness are mandatory. Obviously, you will learn more (and probably a lot more) if you are actively involved in the class. Beyond that, your active participation will help your <i>classmates</i> learn more as well.
		- If you choose not to attend a lecture, it is <b>your responsibility</b> to be informed of any changes made during the lectures about the syllabus or exams and get a copy of the class notes.
Assignments (Best 6 out of 7)	150	- There will be several homework assignments in the class. You will generally have one week to complete the assignment. Because discussion promotes learning, students are <u>encouraged to</u> <u>work together</u> and discuss homework assignments. However, each student must submit assignments individually. This does not mean turning in multiple copies of the same solutions. Learning how to formulate your own solutions and explanations is a valuable component of the problem sets.
		- Homework must be turned in on time. Late work will not be accepted as solutions for each problem set will be posted immediately after the problem sets are due.

Components	Points	Notes			
Midterm Exam1	250	<b>Tuesday March 3<sup>rd</sup>.</b> The midterm exam1 will cover all topics that have been discussed in class prior to that point.			
Midterm Exam2	250	<b>Tuesday April 14<sup>th</sup>.</b> The midterm exam2 will emphasize the material that have been discussed in class after the first exam.			
Final Exam	300	<b>Wednesday May 13<sup>th</sup> 2:00-5:00 PM</b> . The final exam will not be cumulative, but it will also include some questions on topics from the earlier materials covered in class; this is unavoidable because the latter models build upon those presented earlier in the semester.			

#### **Expectations and General Orientation:**

- Plan to spend about 2 hours on each homework assignment. If it is taking you much longer, consider coming to my office hours or making an appointment to see if there is any way to streamline the process.
- Most topics build upon other topics covered earlier in the semester, so it is important to maintain your effort throughout the semester so that you do not fall behind. To avoid stress, do not procrastinate and wait until the last night before the test.
- Students should come to class prepared. At the least, this means skimming over your notes from the last class session, but obviously it would be better to do more—read all assignments, study your notes, identify questions you have, etc.
- Please turn off and store cell phones before class. The material in this class is at times detailed and/or technical, so students are advised to give it their full attention.
- Please come to my office hours or make an appointment to resolve any concerns or difficulties you may have.

#### Honor Code

You are expected to follow the William & Mary Honor Code. If I discover any academic misconduct, I will initiate an Honor Council proceeding and recommend failure of the course. If you have any questions about how the Honor Code relates to this course, feel free to talk to me or refer to the Student Handbook and the William & Mary Honor Council's website.

Your Score	Grade	Your Score	Grade	Your Score	Grade	Your Score	Grade
95% to 100%	А	83% to 86%	В	73% to 76%	С	63% to 66%	D
90% to 94%	A-	80% to 82%	B-	70% to 72%	C-	60% to 62%	D-
87% to 89%	B+	77% to 79%	C+	67% to 69%	D+	Below 59%	F

#### **Grade Distribution**

#### **Important Dates to Remember**

- Add/Drop deadline: Friday January 31st
- Spring break: Saturday-Sunday March 7-15th
- Withdraw deadline: Friday March 23rd

## I. Introduction and review

- A. Definitions of commonly-arising concepts
  - 1. Elasticity
  - 2. Marginal versus average
- B. Baseline model: Supply and Demand (Chs. 2-3)
  - 1. Supply and demand functions
  - 2. Equilibrium
- C. Fundamentals of welfare economics (Ch. 9)
  - 1. Gains from trade: consumer surplus and producer surplus
  - 2. Deadweight loss

## II. Theory of Consumer Demand (Chs. 4-5)

- A. Fundamentals
  - 1. Budget constraints
  - 2. Preferences and utility
- B. Consumer demand: Choosing optimal bundles of goods
- C. Individuals' demand curves
  - 1. Price and income elasticities
  - 2. Decomposing price elasticities: Income and substitution effects

## III. Theory of Supply

- A. Overview
  - 1. Profit maximization (Ch. 8.1-8.2)
  - 2. Marginal revenue (Ch. 11.1)
  - 3. Costs and marginal cost (Ch. 7.1-7.2)
- B. Production (Ch. 6)
  - 1. Production functions and isocost lines
    - a. Isoquants and substitutability of inputs
    - b. Returns to scale
    - c. Isocost lines
  - 2. Production decisions
    - a. In the short-run
    - b. In the long-run
- C. Cost functions in the short- and long-Runs (Ch. 7)
- D. Demand for factors of production (inputs) (Chs. 15.1)
- E. Aggregate supply under perfect competition (Ch. 8.3-8.4)
- F. Supply under monopoly (11.1)

## IV. Pareto efficiency and the First (Fundamental) Welfare Theorem (Ch. 10)

## V. Market failures: Conditions under which the First Welfare Theorem does not apply

- 1. Monopoly (Chs. 11, 12)
  - a. Sources of monopoly power
  - b. Monopoly and social welfare
  - c. Price discrimination (Ch. 12)
  - d. Monopoly and monopsony in factor markets (Ch. 15.2-15.3)
- 2. Monopolisitic competition (Ch 13.6)
- 3. Oligopoly (Chs. 13, 14)
  - a. Primer on game theory
  - b. Cournot, Bertrand, and Stackelberg equilibria

Week	Day	Date	Торіс	Assignment
Week1	Tuesday	21-Jan		
Week1	Thursday	23-Jan	Definitions of commonly-arising concepts	
	Tuesday	28-Jan	Definitions of commonly-arising concepts	
Week 2	Thursday	30-Jan	Definitions of commonly-arising concepts	Assignment 1
	Tuesday	4-Feb	Supply and Demand	
Week 3	Thursday	6-Feb	Fundamentals of welfare economics	Assignment 1-Due
Week 4	Tuesday	11-Feb	Budget constraints	Assignment 2
Week 4	Thursday	13-Feb	Preferences and utility	
Week 5	Tuesday	18-Feb	Consumer demand: Choosing optimal bundles o goods	f Assignment 2-Due; Assignment 3
	Thursday	20-Feb	Individuals' demand curves	
	Tuesday	25-Feb	Individuals' demand curves	Assignment 3 Due ;
Week 6	Thursday	27-Feb	Review Exam 1	
W I- 7	Tuesday	3-March	Exam1	
Week 7	Thursday	5-March	Theory of Supply- Overview	
	Tuesday	10-March	Spring Break	
Week 8	Thursday	12-March	Spring Break	
	Tuesday	17-March	Theory of Supply- Overview	Assignment 4
Week 9	Thursday	19-March	Theory of Supply- Production	
Week 10	Tuesday	24-March	Theory of Supply- Production	Assignment 4-Due
	Thursday	26-March	Theory of Supply- Production	
Week 11	Tuesday	31-March	Theory of Supply- Production	Assignment 5
	Thursday	2-April	Pareto efficiency and the First (Fundamental) Welfare Theorem (Ch. 10)	

Week	Day	Date	Торіс	Assignment
Week 12	Tuesday	7-April	Pareto efficiency and the First (Fundamental) Welfare Theorem (Ch. 10)	Assignment 5-Due
	Thursday	9-April	Review Exam 2	
Week 13	Tuesday	14-April	Exam2	
Week 15	Thursday	16-April	Monopoly	
Week 14	Tuesday	21-April	Monopoly	
WEEK 14	Thursday	23-April	Monopoly	
Week 15	Tuesday	28-April	Monopolistic competition	Assignment 6
Week 15	Thursday	30-April	Oligopoly	
Week 16	Tuesday	5-May	Oligopoly	Assignment 6-Due
WEEK IO	Thursday	7-May	Oligopoly	