

# EconS 305: Intermediate Microeconomics without Calculus

Joseph Navelski

Summer, 2020 (Term 1)

E-mail: [joseph.navelski@wsu.edu](mailto:joseph.navelski@wsu.edu)

Office Hours: M/W 10:15-11:15am

Office: Hulbert Hall 107 D

Web: [www.linkedin.com/in/jnavelski](https://www.linkedin.com/in/jnavelski)

Class Hours: M/T/W/Th/F 9-10:15am

Class Room: Distance Learning Through Zoom

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## Course Description

We live in an exciting time where the economy is evolving rapidly. Markets are changing, new products and technologies are being developed, and people are making transactions in ways they never would have dreamed of ten years ago. Understanding the economics of this process is critically important to anyone planning a business career. It is also important for anyone who simply wishes to understand how to apply microeconomic reasoning to economic problems, how markets function, how markets grow and evolve over time, and more importantly, what happens when markets do not function properly. Most public policy questions are critically dependent on this way of thinking.

## Required Materials

- **Class Text:** Goolsbee, A., Levitt, S., & Syverson, C. (2020). *Microeconomics (Third Edition)*. Gordonsville, VA: Macmillan Learning.  
<https://www.macmillanlearning.com/college/us/product/Microeconomics/p/1319105564>  
ISBN: 9781319105587
- **Sapling Plus for the above text:** This is the electronic software that is needed for the course. This needs to be purchased and registered to this course in order to do the required examples and practice problems. It can be purchased on the same website as the text book.  
<https://www.macmillanlearning.com/college/us/product/Microeconomics/p/1319105564>  
ISBN: 9781319105624

## Prerequisites

Econs 101 or Econs 198. Additionally, the homework for the course will require you to know how to solve a system of linear equations. This means that you will need to know how to do college level algebra. Calculus is not needed for this course, but calculus will be present throughout the course. The instructor will provide the equations derived from using calculus, but the student is expected to use these derivations to find mathematical results.

## Course Objectives

By the end of the semester a student will be able to apply the principles of microeconomics to a range of phenomena, be able to understand the nature of economic decision making, understand how markets function when they work well, be able to analyze issues involving the various types of market structure and how they differ across different market types, and most importantly, understand what can happen if markets do not function properly, or what occurs when markets fail.

## Course Structure

### Class Structure

Lectures will be held Monday through Friday for 6 weeks. The lectures will follow the course text book, and the instructor will be using the slides provided by the text to present the concepts that are in the book. All slides will be available at all times in the Blackboard Course website, and all lectures will be recorded. These lectures will be recorded during the allotted class time. If the lecture does not record, possibly because of some technical difficulty, this is not the fault of the instructor, and the students that missed that lecture will have to get the notes from some other student taking the course.

### Attendance

Attendance is not mandatory, but highly encouraged. Economic concepts involve a lot of intuition, and knowing why a mathematical concept is applied in a certain way. Economic theory enables us to think about individual's and firm's behavior using mathematics, and knowing why and how this theory is applied is the root of this course.

### Late Work - Homework Problem Sets ONLY

Any late work will be subject to a 20 point reduction, out of 100 points, and students will have one day after the deadline to submit the late work. After 24 hours has passed, late work will not be accepted as the solutions to the work will be posted. The instructor will post solutions after this 24 hour time period to ensure that students have ample time to practice the previously completed problem sets. Note that this late work policy only applies to homework in the form of problem sets.

## Grading Policy

The typical WSU Undergraduate Grading scale will be used:

<b>A</b>	93% to 100%	<b>B +</b>	87% to 89.99%	<b>C +</b>	77% to 79.99%	<b>D +</b>	67% to 69.99%
<b>A -</b>	90% to 92.99%	<b>B</b>	83% to 86.99%	<b>C</b>	73% to 76.99%	<b>D</b>	60% to 66.99%
		<b>B -</b>	80% to 82.99%	<b>C -</b>	70% to 72.99%	<b>F</b>	0 to 59.99%

The instructor reserves the right to curve the scale dependent on overall class scores at the end of the semester. Any curve will only ever make it easier to obtain a certain letter grade. The grade will count the following assessments using the following proportions:

- 40% of your grade will be determined by 5 homework (problem set) assignments where your lowest homework grade will be dropped.
- 40% of your grade will be determined by the work you do in Sapling Plus (EOC Exercises and Quizzes).
- 20% of your grade will be determined by a final project that is due at the end of the course.

### Homework (Problem Sets) - 40%

The homework in this course is crucial to understanding how mathematics is used to model economic theory. Knowing how calculus helps us solve these problems at the intermediate microeconomics level is important, but having the ability to apply calculus concepts is not necessary for this course. This course follows this thought, and essentially, introduces you to calculus and its usefulness in problem solving. Each homework will show you how calculus is used to solve economic problems, but no calculus is required to solve the homework (problem sets).

Homework will be due every week, starting the second week, and will be a list problems to solve. Students are expected to do the problems with pencil and paper, and should show all of their work. Each student will be required to scan their solutions to the problems, in the same order the problems are presented on the homework, and submit them via the Blackboard course website. The scanned document should be compiled into a .PDF file and should be submitted as ONE file. Students are encouraged to work together on the homework, but each student will submit their own homework solution.

### Sapling Plus Online Work - 40%

All students are required to purchase the Sapling Plus software that accompanies the text book. The guide for registering for this course via Sapling is in the "Course Information" tab on the Blackboard Course website. Sapling Plus is a software that allows students to apply what is taught in class to real life examples. This software will guide students through the text book, and help students refine their knowledge on key concepts. No calculus will be needed to solve the exercises in Sapling Plus, and most of the exercises will test economic intuition. Students are required to do the "End of Chapter Exercises (EOC Exercises)" and "Chapter Quizzes" for each chapter. Each module will have 10 questions, and these 10 questions are randomly chosen from a

pool of questions that are equally weighted in difficulty. For the EOC Exercises, students will have an unlimited amount of attempts to solve each question without penalty. For the Chapter Quizzes, students will have three attempts to do each quiz question with a 10% penalty for each failed quiz question attempt. This penalty is to make sure you are thinking about the problem, and not just clicking towards victory. Note that the EOC Exercises and Quizzes are equally weighted for your Sapling grade. Meaning, that if you ace every EOC Exercise (i.e. a 100%) and get every question right on the third try (i.e. a 70%), then this should put you at an 85% for your Sapling Plus grade.

There are **two different Sapling Plus due dates**. The first due date is **Friday, May 29th, 2020** (the same day Homework 2 is due), and students need to finish the required work for **Chapter 1: Adventures in Microeconomics through Chapter 8: Supply in a Competitive Market**. The next due date is **Friday, June 19th, 2020** (the final day of class), and students will need to finish the required work for **Chapter 9: Market Power & Monopoly through Chapter 18: Behavioral and Experimental Economics**. Please note that the instructor reserves the right to alter the content covered in the second half of the course, which means that some modules/chapter listed in schedule may not be covered. This means that students should focus on doing well in the first half of the course to ensure their Sapling Plus grade remains strong. 40% of your final grade will depend on your cumulative Sapling Plus score, and no extensions will be given past the aforementioned due dates.

### **Class Project Proposal - 20%**

No exams will be administered in this course, but a final project proposal, in the form of a written paper, is required. The paper should be at least **6 pages long and double spaced**. A grading rubric will be provided, but students are encouraged to think about an economic problem to investigate early. The project proposal is meant to encourage students to think about how to apply economic concepts in a research setting. They need to define the problem they are trying to investigate, give a review of the previous literature in regards to that problem, convey how they intend to solve that problem using microeconomic theory, gather the data they would need to feasibly solve the problem, conjecture their expected results from their potential analysis, provide concluding remarks as to why they expect these results, and address the potential challenges and criticisms they may face when implementing the proposal. This paper is worth 20% of the students grade, and students are encouraged to work on their project proposal within the first two weeks.

## Course Policies

### WSU Academic Honesty Statement

As an institution of higher education, Washington State University is committed to principles of truth and academic honesty. All members of the University community share the responsibility for maintaining and supporting these principles. When a student enrolls in Washington State University, the student assumes an obligation to pursue academic endeavors in a manner consistent with the standards of academic integrity adopted by the University. To maintain the academic integrity of the community, the University cannot tolerate acts of academic dishonesty including any forms of cheating, plagiarism, or fabrication. Academic integrity is the cornerstone of the university and will be strongly enforced in this course. I encourage you to work with classmates on assignments. However, each student must turn in original work. No copying will be accepted. Any student caught cheating on any assignment or exam will be given an F grade for the course, will not have the option to withdraw from the course, and will be reported to the Office of Student Standards and Accountability. Cheating is defined in the Standards for Student Conduct WAC 504-26-010 (3). It is strongly suggested that you read and understand these definitions: <http://conduct.wsu.edu/default.asp?PageID=338>. You will find the Academic Integrity Statement and link to WSU's policy at this website: <http://www.conduct.wsu.edu/default.asp?PageID=343>, and an explanation of plagiarism at this one: <http://www.wsulibs.wsu.edu/plagiarism/main.html>.

### Disability Statement

Reasonable accommodations are available for students with a documented disability. If you have a disability and may need accommodations to fully participate in this class, please either visit or call the Access Center (Washington Building 217; 509-335-3417) to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center.

### WSU Safety Procedures

Classroom and campus safety are of paramount importance at Washington State University, and are the shared responsibility of the entire campus population. WSU urges students to follow the "Alert, Assess, Act" protocol for all types of emergencies and the "Run, Hide, Fight" response for an active shooter incident. Remain ALERT (through direct observation or emergency notification), ASSESS your specific situation, and ACT in the most appropriate way to assure your own safety (and the safety of others if you are able). It is highly recommended that you review the Campus Safety Plan and visit the Office of Emergency Management web site for a comprehensive listing of university policies, procedures, statistics, and information related to campus safety, emergency management, and the health and welfare of the campus community.

Here are the links:

<http://safetyplan.wsu.edu>

<http://oem.wsu.edu/emergencies>

<http://alert.wsu.edu>

## Schedule

The schedule is tentative and subject to change. The learning goals below should be viewed as the key concepts you should grasp after each week. Each homework will test on the material that was taught **up until the Wednesday before it is due**. The applications taught during the semester tend to build on to each other, so it is important to not fall behind.

### **Week 1, 05/11 - 05/15:** Supply, Demand and Consumer Behavior

- M: Adventures in Microeconomics & Supply and Demand
- T: Supply and Demand
- W: Using Supply and Demand to Analyze Markets
- Th: Using Supply and Demand to Analyze Markets
- F: Consumer Behavior

### **Week 2, 05/18 - 05/22:** Consumer Behavior, Market Demand and Producer Behavior

- M: Consumer Behavior
- T: Individual and Market Demand
- W: Individual and Market Demand
- Th: Producer Behavior
- F: Producer Behavior
- Items Due: Homework 1

### **Week 3, 05/25 - 05/29:** Producer Behavior, Firm Costs and Supply in a Competitive Market

- M: Costs
- T: Costs
- W: Supply in a Competitive Market
- Th: Supply in a Competitive Market
- F: Market Power and Monopoly
- Items Due: Homework 2 & Sapling Plus CH:1 through CH:8

**Week 4, 06/01 - 06/05:** Market Power, Monopoly, Pricing and Imperfect Competition

- M: Market Power and Monopoly
- T: Pricing Strategies for Firms with Market Power
- W: Pricing Strategies for Firms with Market Power
- Th: Imperfect Competition
- F: Imperfect Competition
  - Items Due: Homework 3

**Week 5, 06/08 - 06/12:** Game Theory, Factor Markets and Investment

- M: Game Theory
- T: Game Theory
- W: Factor Markets
- Th: Factor Markets
- F: Investment, Time and Insurance
  - Items Due: Homework 4

**Week 6, 06/15 - 06/19:** General Equilibrium, Externalities and Public Goods

- M: General Equilibrium
- T: General Equilibrium
- W: Externalities and Public Goods
- Th: Externalities and Public Goods
- F: Pass in your Research Proposal.
  - Items Due: Homework 5, Class Project Proposal, and Sapling Plus CH: 9 through CH:18

## **Disclaimer**

This syllabus is subject to change to facilitate instructional and/or student needs.