# Econ 400 Microeconomic Theory Syllabus

Instructor: Professor Melissa Knox

Office Hours:  Mondays 1 - 3 pm (On Zoom) (Note: I am also teaching Econ 200, and those students take up a lot of my office hour time.  Let me know if I need to schedule different hours for this class.)

Class Meetings:  Tuesdays/Thursdays 1:30-3:20 pm in CMU 230

Class Attendance: This class is in-person. If you are ill and need to miss class, I will provide copies of the lecture notes.

Class Questions: Please read this syllabus thoroughly as it most likely contains the answer to your question.  If you read and still do not see the answer, ask your question in the class discussion boards, office hours, or a class meeting.

Personal Questions: Send me a message in Canvas for personal inquiries.

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## Learning Objectives

- Possess a solid grasp of the mathematics of constrained optimization (especially Lagrange's method) and know how to apply it to solve microeconomic problems
- Explain what market demand and market supply represent, and derive both mathematical functions by formulating and solving constrained optimization problems.
- Explain what market equilibrium represents in the case of many price-taking consumers and suppliers, and calculate market equilibrium with taxes, subsidies, and quotas, or without any such policies.
- Express and analyze strategic decision making in decision trees and payoff matrices using game theory.  Explain, model, and solve the strategic decisions of monopolists and oligopolists.

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## Required Materials

The required textbook is Microeconomic Theory, 12th edition, by Walther Nicholson and Christopher Snyder.  It's a good book and you will do better in the class if you read it.  However,you are not required to purchase any additional software or website access

for this class, so there is no need to purchase a new copy of the text. In fact, I believe that any edition from the last 10 years will work fine for our purposes, except that you will need to make sure that you are doing the correct homework problems (sometimes the numbers change).

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# Grading

Grades will be calculated based on the following:

Exams (80% - Non-cumulative, in class)

Pop Quizzes (20% - Approximately 7, but lowest 2 scores will be dropped)

If your final percentage for the class is X%, then your grade will be:

| Percentage | Grade |
|---|---|
| X>95% (inclusive) | 4.0 |
| 95%>X>60% | 0.055X-1.3 (rounded to one decimal place) |
| 60%>X>50% | 2.0 |
| X<50% | 0.0 |

**The median grade for this course is typically ~3.3-3.5. Note: I don't expect anyone who completes all assignments to get lower than 50%.**

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# Class Rules and Additional Details

## Class Format

The class will be a traditional lecture format with ample time for questions and discussion. To promote discussion, we will occasionally have in-class exercises that you will submit for participation credit. I will assign homework whenever we begin a new chapter (usually once per week) and post homework solutions so that you can check your work. I am happy to discuss these problems in class or office hours.

## Problem Sets

Problem sets will be assigned at the start of every chapter and you are responsible for keeping up with the problems associated with the material we have covered in the class so far (although I will try to remind you). Problem set solutions are posted, but reading solutions is no substitute for working through challenging problems.

## Quizzes

I will give pop quizzes approximately once per week at the start of class. Please arrive on-time and prepared. These will exclusively cover the material in the homework assignments as an incentive to you to keep up with the homework problems. I will drop two of your lowest scores to account for absences and/or a week or two when you may be behind on homework.

## Makeup Policies and Flexibility

Midterm makeup exams will be given due to extreme circumstances such as illness (not for work or travel obligations). The makeup for exam 1 will likely be about 10 days after exam 1, while the makeup for exam 2 will be during finals week. If you are unable to attend those makeup exam sessions, I will likely drop your exam score.  We will also have "pop quizzes" approximately once per week, but the lowest 2 scores will be dropped. This is the bulk of my makeup policy.  However, I realize we are still in a global pandemic and times are tough. I reserve the right to make the class more flexible, if need be.

## COVID-19 Safety

High quality, properly worn masks (N-95, KN-95, KF-94, etc.) are highly recommended. If you ever have a concern that you might be at risk of spreading COVID to others, please stay home and especially stay away from large gatherings such as this class.  Class notes will always be made available.

## Accommodations

Students who have established services with Disability Resources for Students (DRS) should contact me about their accommodations as soon as possible.  Students with disabilities who have not yet established services with DRS should contact them at disability.uw.edu to set up an Access Plan.

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at Religious Accommodations Policy (https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/) Links to an external site.. Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form (https://registrar.washington.edu/students/religious-accommodations-request/) Links to an external site..

# Course Summary:

| Date | Details |
| --- | --- |
| Thu Jan 5, 2023 | Assignment [Chapter 2 N&S (Mathematical Preliminaries)](#) |
| Tue Jan 10, 2023 | Assignment [Chapter 3 N&S (Preferences and Utility)](#) |
| Thu Jan 12, 2023 | Assignment [Ch 4 N&S (1st Half - Utility Maximization)](#) |
| Tue Jan 17, 2023 | Assignment [Ch 4 N&S (2nd Half - Cost Minimization)](#) |
| Thu Jan 19, 2023 | Assignment [Ch 5 N&S (1st Half - Substitution and Income Effects)](#) |
| Tue Jan 24, 2023 | Assignment [Ch 5 N&S (2nd Half - Slutsky Decomposition)](#) |
| Thu Jan 26, 2023 | Assignment [Chapter 7 N&S - Uncertainty](#) |
| Tue Jan 31, 2023 | Assignment [Midterm 1 (Chapters 2-7)](#) |
| Thu Feb 2, 2023 | Assignment [Ch 9 N&S (Production Functions)](#) |
| Tue Feb 7, 2023 | Assignment [Ch 10 N&S (Part 1 - Cost Functions)](#) |
| Thu Feb 9, 2023 | Assignment [Ch 10 N&S (Part 2 - Cost Functions)](#) |
| Tue Feb 14, 2023 | Assignment [Ch 11 N&S (Profit Maximization)](#) |
| Thu Feb 16, 2023 | Assignment [Ch 12 N&S (Part 1 - Short Run PC Markets)](#) |
| Tue Feb 21, 2023 | Assignment [Ch 12 N&S (Part 2 - Long Run PC Markets)](#) |
| Thu Feb 23, 2023 | Assignment [Ch 14 N&S (Monopoly Markets)](#) |

| Date | Details |
|------|---------|
| Tue Feb 28, 2023 | Assignment [Ch 15 N&S (Part 1 - Oligopoly Markets)](#) |
| Thu Mar 2, 2023 | Assignment [Ch 15 N&S (Part 2 - More Oligopoly Markets)](#) |
| Thu Mar 9, 2023 | Assignment [Midterm 3 (Chapters 9-15)](#) |