AEB 6106: Microeconomic Principles and Analysis
Fall 2025

Instructor Information:
Gulcan Onel
1091 McCarty Hall B
gulcan.onel@ufl.edu
352-294-7657

Office Hours:
Mondays 3:00PM – 4:00PM in-person, or by appointment on Zoom.

Class Meetings:
Mondays: 1:55 PM – 2:45 PM, MAEB 238
Wednesdays: 1:55 PM – 2:45 PM, MAEB 238
Fridays: 1:55 PM – 2:45 PM, MAEB 238

Course Description:
This course offers a comprehensive exploration of advanced microeconomic theory, focusing on key concepts such as consumer and producer theory, uncertainty, game theory, market structures, and labor markets. Designed for first-year Master's students, the course emphasizes a higher level of mathematical rigor and analytical depth compared to undergraduate microeconomics courses. Students will engage with theoretical models and apply them to realistic economic scenarios, preparing them for further study and research in economics.

Learning Objectives:
1. *Analyze and Apply Advanced Microeconomic Models:*
   - Students will be able to rigorously analyze and apply advanced microeconomic models to real-world scenarios, including consumer behavior, production decisions, and market outcomes.
2. *Develop and Interpret Duality and Envelope Theorem Concepts:*
   - Students will understand and apply the concepts of duality and the envelope theorem within the context of microeconomic theory to analyze optimization problems in economics.
3. *Critically Evaluate Market Structures and Power:*
   - Students will demonstrate the ability to critically evaluate different market structures, such as perfect competition, monopoly, and oligopoly, and understand the implications of market power on economic welfare.
4. *Evaluate Welfare Economics and General Equilibrium:*
   - Students will evaluate the conditions for general equilibrium in an economy and assess the efficiency and equity implications of different economic policies through the lens of welfare economics.

Prerequisites:
A solid understanding of basic algebra, including skills such as taking derivatives and graphing equations, is essential for success in this course. Additionally, students must have completed an undergraduate-level microeconomics course to ensure they are familiar with foundational concepts that will be built upon throughout the semester.

Textbook:
Nicholson, W. and Snyder, C. Microeconomic Theory: Basic Principles and Extensions. (Any Year/Edition is acceptable. All editions contain the core material, though chapter numbers and problem sets may differ. I will refer specifically to the chapter numbers and problems in the 12th edition).

Course Canvas Page:
The course has a dedicated Canvas page, which you can access through https://elearning.ufl.edu/. I will post course assignments and notes here. You will also submit your homework assignments and take-home exam through Canvas (i.e., scan your work, save it as a PDF file, and upload it to the designated assignment page). Please ensure that you have announcement notifications enabled in Canvas.

Course Grade and Assignments:
The overall course grade will be determined by
- Five or six Homework Assignments (30% total, lowest score dropped)
- Two in-class exams (40% total; 20% each)
- One take-home final with a pre-recorded presentation (30% total).

Letter grades will be assigned to the overall course grade as follows:

A = 93 and higher	C+ = 77 – 79
A- = 90 – 92	C = 73 – 76
B+ = 87 – 89	C- = 70 – 72
B = 83 – 86	D+ = 67 – 69
B- = 80 – 82	D = 63 – 66
	D- = 60 – 62

For more information on current UF policies for assigning grade points, see https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Homework Policy:
Collaboration on homework is encouraged, but each student must submit their own work. Please list the names of peers you discussed the assignment with on your submission, if applicable. Individual submissions should be original, and identical portions with peers are not allowed. Late submissions and make-up work will not be offered. Instead, the lowest problem set score will be dropped. If you miss a submission deadline, you may still submit that assignment until the beginning of the following class with a 25% penalty on your score.

Exam Policy:
There will be two non-cumulative, in-person exams conducted in the classroom using traditional pen-and-paper format. Students may bring one "cheat sheet" (maximum half of a letter-sized paper) and a basic, non-graphing calculator. There will be no make-up exams. In the case of a serious, unforeseen, and documentable emergency that prevents a student from taking an exam, the average of the other two exams will be used to replace the missed grade.

The third exam is a take-home assignment. For this assignment, students will choose an episode from *Freakonomics Radio* and prepare a presentation analyzing its core economic concepts and implications. Deliverables include a PowerPoint presentation (10–20 slides) and a recorded video presentation via Zoom. The presentation should include a summary of the episode, an application of relevant economic theories, two critical discussion questions, and a concluding evaluation. Analysis must be supported by at least two academic or recommended sources. This assignment

emphasizes the application of economic reasoning to real-world topics and the development of clear, analytical communication skills.

Attendance:
While attendance will not be graded, students are strongly encouraged to attend class regularly. If you anticipate an extended absence, please inform me in advance.

Academic Honesty:
Any student found in violation of the Student Honor Code will receive a minimum penalty of a grade of "0" on the assignment or exam in question. Additional penalties may include attending seminars on ethical decision-making and plagiarism prevention.

University Policies and Academic Resources:
Students seeking information on academic accommodations, university services, or official UF policies should refer to the UF syllabus policy page: https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/.

Tentative Course Outline:
(Dates and coverage may change as circumstances warrant. Chapter numbers refer to the 12th edition of Nicholson & Snyder's textbook.)

1- Math Review for Microeconomics (Chapter 2)
- o   Overview of essential mathematical tools
- o   Techniques for optimizing economic functions

2- Preferences and Utility (Chapter 3)
- o   Understanding consumer preferences
- o   Introduction to utility theory and indifference curves

3- Utility Maximization and Choice (Chapter 4)
- o   Utility maximization subject to constraints
- o   Deriving demand curves from utility maximization

4- Income and Substitution Effects (Chapter 5)
- o   Analyzing changes in demand due to price and income variations
- o   Hicksian and Slutsky approaches

5- Demand Relationships among Goods (Chapter 6)
- o   Cross-price elasticity of demand
- o   Complementary and substitute goods

6- Uncertainty (Chapter 7)
- o   Decision-making under uncertainty
- o   Expected utility theory and risk aversion

EXAM 1: Wednesday, October 8, 2025 (In-person, during regular class time)

7- Production (Chapter 9)
- o   Production theory and isoquants
- o   Returns to scale and technological change

8- Cost (Chapter 10)
- o Derivation and properties of cost functions
- o Short-run and long-run cost analysis

9- Profit Maximization and Competitive Market Equilibrium (Chapter 11)
- o Profit maximization strategies in competitive markets
- o Analysis of equilibrium in perfectly competitive markets

10- Profit Maximization and Competitive Market Equilibrium (Chapter 12)
- o Comparative statics and welfare implications

11- Monopoly (Chapter 14)
- o Monopoly power and market structures
- o Price discrimination and welfare effects of monopoly

12: Imperfect Competition (Chapter 15)
- o Monopolistic competition and oligopoly

EXAM 2: Wednesday, November 12, 2025 (In-person, during regular class time)

(The following topics will be covered as time permits).

13: General Equilibrium and Welfare (Chapter 13)
- o Interdependence of markets in general equilibrium
- o Welfare theorems and market efficiency

Week 14: Labor Markets (Chapter 16)
- o Supply and demand in labor markets
- o Wage determination and labor market equilibrium

EXAM 3: Due online on December 12th, 2025 (Instructions to follow).