#### AEB 6106: Microeconomic Principles and Analysis Fall 2024

#### Instructor Information:

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

#### **Office Hours:**

Mondays 11:00AM – 12:00PM in-person, or by appointment on Zoom.

#### **Class Meetings:**

Mondays: 1:55 PM – 2:45 PM, In-person, <u>MAEB 0238</u> Wednesdays: 1:55 PM – 2:45 PM, In-person, <u>MAEB0238</u> Fridays: 1:55 PM – 2:45 PM, On Zoom, <u>https://ufl.zoom.us/j/94476265166</u>

#### **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 <u>https://elearning.ufl.edu/</u>. 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 exam with presentation (30% total; 15% for the write-up and 15% for the presentation).

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 <u>https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx</u>

#### 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 three non-cumulative exams: two in-person, traditional pen-and-paper exams held in the classroom, and a third take-home exam during the last week of classes. The third exam will also require each student to give a short presentation of their solution (details to follow). There will be no make-up exams. If a serious, unforeseen, and documentable situation prevents a student from taking any of the exams, the average of the other two exams will be used as the grade for the missed exam.

#### 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.

### 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.

### Tentative Course Outline:

(Dates and coverage may change as circumstances warrant. Chapter numbers refer to the 12<sup>th</sup> edition of Nicholson & Snyder's textbook.)

- 1- Math Review for Microeconomics (Chapter 2)
  - Overview of essential mathematical tools
  - Techniques for optimizing economic functions
- 2- Preferences and Utility (Chapter 3)
  - Understanding consumer preferences
  - Introduction to utility theory and indifference curves
- 3- Utility Maximization and Choice (Chapter 4)
  - Utility maximization subject to constraints
  - Deriving demand curves from utility maximization
- 4- Income and Substitution Effects (Chapter 5)
  - Analyzing changes in demand due to price and income variations
  - Hicksian and Slutsky approaches
- 5- Demand Relationships among Goods (Chapter 6)
  - Cross-price elasticity of demand
  - Complementary and substitute goods
- 6- Uncertainty (Chapter 7)
  - Decision-making under uncertainty
  - Expected utility theory and risk aversion

EXAM 1: Monday, October 7, 2024 (In-person, during regular class time)

- 7- Production (Chapter 9)
  - Production theory and isoquants
  - Returns to scale and technological change
- 8- Cost (Chapter 10)
  - Derivation and properties of cost functions
  - Short-run and long-run cost analysis
- 9- Profit Maximization and Competitive Market Equilibrium (Chapter 11)
  - Profit maximization strategies in competitive markets
  - o Analysis of equilibrium in perfectly competitive markets
- 10- Profit Maximization and Competitive Market Equilibrium (Chapter 12)
  - Comparative statics and welfare implications
- 11- Monopoly (Chapter 14)
  - Monopoly power and market structures

- Price discrimination and welfare effects of monopoly
- 12: Imperfect Competition (Chapter 15)
  - Monopolistic competition and oligopoly

EXAM 2: Monday, November 18, 2024 (In-person, during regular class time)

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

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

### Week 14: Labor Markets (Chapter 16)

- Supply and demand in labor markets
- Wage determination and labor market equilibrium

EXAM 3: During the Week of December 2-4, 2024. (Take-home)

# **UNIVERSITY POLICIES**

## **Attendance Policy**

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <u>https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx</u>

## **UF Evaluations Process**

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <u>https://gatorevals.aa.ufl.edu/students/</u>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <u>https://ufl.bluera.com/ufl/</u>. Summaries of course evaluation results are available to students at <u>https://gatorevals.aa.ufl.edu/public-results/</u>.

## **University Honesty Policy**

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code

(<u>https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/</u>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

## **In-Class Recordings**

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole

or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

## **Students Requiring Accommodation**

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <u>https://disability.ufl.edu/students/get-started/</u>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

## **Counseling and Wellness Center**

Contact information for the Counseling and Wellness Center: <u>http://www.counseling.ufl.edu/</u>, 352-392-1575; and the University Police Department: 352-392-1111 or 9-1-1 for emergencies.