AEB 7108 - Microeconomic Theory II
Spring 2025

Instructor: Zhifeng Gao
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Location and Class Hours:

Tuesday: 3:00 - 3:50 pm   MAEB0238
            4:05 - 4:55 pm   MAEB0238
Thursday: 4:05 - 4:55 pm   MAEB0238

Office Hours: Tuesday and Thursday, 2:00-3:00 pm, or by appointment

Course Description:

This is the second course in a sequence of graduate microeconomic theory. This course will focus on the advanced topics in microeconomic theory in light of contemporary thought. Attention will be given to general equilibrium theory and applications, welfare economics, and economics of choice under uncertainty.

Objective:

By taking this class, students should be able to
1. Understand the basic concepts in general equilibrium analysis, welfare economics, and economics of choice under uncertainty.
2. Apply the theory and set up models for economic problems to conduct comparative static analysis.
3. Interpret the results from various economic models.

Prerequisites:

Knowledge of graduate microeconomics theory I (ECO 7115) is required. The ability to use mathematical optimization techniques and the method of comparative statics is required.

Homework and Grading:

Homework will be assigned across the whole semester. All assignments are due at the beginning of class on the due date. There will be two exams: one midterm and one final.
The weight for homework and exams are:

       Homework   20%
       Midterm Exam   30%
       Presentation   10%
       Final Exam   40% (not comprehensive)

No extra credit works are available.

The grade is based on the weighted average of homework and exams.

Course Grade	Letter Grade	Grade Point
90-100	A	4
87-89	A-	3.67
84-86	B+	3.33

81-83	B	3
78-80	B-	2.67
75-77	C+	2.33
72-74	C	2
69-71	C-	1.67

The cutoff point for the grade will not increase and may fall after a curve is applied. You are strongly encouraged to form study groups to discuss homework and lecture materials.

Textbooks (not required):
Silberberg, E and W. Suen, The Structure of Economics: A Mathematical Analysis, 3rd Edition, McGrow-Hill, 2001
https://www.amazon.com/Structure-Economics-Mathematical-Analysis-dp-0072343524/dp/0072343524/ref=mt_hardcover?_encoding=UTF8&me=&qid=1578424243

Mas-Colell, A, M. D. Whinston and J. R. Green, Microeconomic Theory, Oxford University Press, 1995
Carlton, E. W. and Perloff J. M, Modern Industrial Organization 4th edition. Addison Wesley, 2004
https://www.amazon.com/Microeconomic-Theory-Andreu-Mas-Colell/dp/0195073401/ref=pd_bxgy_14_img_2/136-1247069-4014422?_encoding=UTF8&pd_rd_i=0195073401&pd_rd_r=90c6bf2f-77e2-40d6-bfc6-357d0d5e3ab4&pd_rd_w=9uwQQ&pd_rd_wg=YC39j&pf_rd_p=09627863-9889-4290-b90a-5e9f86682449&pf_rd_r=ZVGVPAMBGD2EQ3AWDGQH&psc=1&refRID=ZVGVPAMBGD2EQ3AWDGQH

Tentative Course Outline
You are expected to read those chapters/papers with asterisks. You are also responsible for material in handouts that will be distributed in class. Some supplemental papers are provided for each topic. Additional references can be found at the end of each chapter in Silberberg and Suen. Students may read unassigned chapters/papers at their discretion.

(1) General Equilibrium and Welfare Economics
General Equilibrium
    General Equilibrium Methodology
    Linear and Non-linear Models
    Fixed-Coefficient Technology
    The Linear Activity-Analysis Model
    Duality Analysis in General Equilibrium
    The Edgeworth-Boxley Box Diagram
    Contract Curve and Production Possibility Frontier
    The Stolpher-Samuelson Theorems
    The Rybczynski Theorems

    Pure Exchange Model of General Equilibrium
    The Core of an Exchange Economy
    Walrasian Competitive Adjustment Mechanism
    Existence and Stability of Walrasian Equilibria

Readings:
* Silberberg, E and W. Suen, "General Equilibrium I: Linear Models", Chapter 17.

* Silberberg, E and W. Suen, "General Equilibrium II: Non-Linear Models", Chapter 18.

Stolper, W.R. and P. A. Samuelson, "Protection and Real Wages", Review of Economic Studies, 9 (1941):58-73.

Robertson, Raymond (2004) "Relative Prices and Wage Inequality: Evidence from Mexico" Journal of International Economics vol 64, n2 (December), pp. 387-409.

*Mayer, W. "Short-Run and Long-Run Equilibrium for a Small Open Economy", Journal of Political Economy, 82 (1974):955-967.

Welfare Economics
    Pareto Optimality in Production
    Pareto Optimality in Consumption
    Overall Pareto Optimality
    The Efficiency of Perfect Competition
    The Efficiency of Imperfect Competition
    External Economics and Diseconomies in Production and Consumption
    Taxes and Subsidies- Solutions to Pareto Suboptimality
    Optimal Pricing (or Taxation) to Maximize Social Welfare
    Public Goods

Readings:
* Silberberg, E and W. Suen, "Welfare Economics" Chapter 19.

* Varian, H.R., "A Solution to the Problem of Externalities When Agents are Well-Informed", American Economic Review, 84 (December 1994):1278-1293.

(2) Economics of Choice under Uncertainty
The Expected-Utility and Risk Aversion
    The Expected-Utility Hypothesis and Theorems
    Attitudes toward Risk: Risk Aversion, Risk Neutrality and Risk Preference
    The Measurement of Risk Aversion

Reading:
* Silberberg, E and W. Suen, "Behavior under Uncertainty", Chapter 13.

Friedman, M. and L. Savage, "The Utility Analysis of Choices Involving Risk", Journal of Political Economy, 56 (1948):279-304.

Risk Bearing, Demand for Insurance, and Moral Hazard
    Risk Shedding and Risk Pooling
    Risk-Bearing, Demand for Protection and Insurance
    Insurance and Moral Hazard

Readings:
*Ehrlich, I and G. S. Becker, "Market Insurance, Self-Insurance, and Self-Protection", Journal of Political Economy, 82 (1972):623-648.

*Chang, Y.M. and I. Ehrlich, "Insurance, Protection from Risk and Risk-Bearing", Canadian Journal of Economics (August 1985): 574-586.

Pauly, M.V., "Overinsurance and the Public Provision of Insurance: The Role of Moral Hazard and Adverse Selection", Quarterly Journal of Economics, 88 (1974):44-54.

Löffler, Andreas. "Variance Aversion Implies $\mu - \sigma^2 - Criterion$." Journal of Economic Theory. 69 (1996):532-39.

Theories of Production Decisions under Uncertainty
   Comparative Statics of the Risk-Bearing Optimum
   Theory of the Competitive Firm under Uncertainty
   Production Uncertainty

Readings:
*Sandmo, A., "On the Theory of the Competitive Firm under Price Uncertainty", American Economic Review, (March 1971):65-71.

Batra, R. and A. Ullah, "Competitive Firm and the Theory of Input Demand under Uncertainty", Journal of Political Economy, (June 1974):537-548.

*Schmitz, A., H. Shalit and S. J. Turnovsky, "Producer Welfare and the Preference for Price Stability", American Journal of Agricultural Economics, (1981):158-160.

Important Dates (Link)

Classes Begin	January 13
Classes End	April 23
Drop/Add (11:59 pm of last day)	January 13-17
Withdrawal with no Fee Liability (11:59 pm of last day)	January 17
Reading Day	April 24 - 25
Final Grades available	May 7
Holidays - no classes	January 20: Martin Luther King, Jr. Day March 15 - 22: Spring Break

Tentative dates	
Exam1	March 11 (Tuesday)
Exam2	4/29/2025 @ 10:00 AM - 12:00 PM
Project Presentation (in class)	TBD

Attendance Policy: Class attendance is expected. Students should inform the instructor of expected absences. Excessive unexcused absences will result in negative consequences.

Policy On In-Class Cell Phone Use And Text Messaging: Cell phones should be turned off or put on vibrate mode and should not be answered during class periods. Non-emergency, in-class text messaging is not acceptable.

Students Requiring Accommodations
Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. It is important for students to share their accommodation letters with their instructor and discuss their access needs as early as possible in the semester.

Course Evaluation
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 https://gatorevals.aa.ufl.edu/students/. Students are 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 https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

In-Class Recording
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.

University Honesty Policy
UF students are bound by The Honor Pledge: "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 Conduct Code specifies a number of behaviors that are in violation of this code and possible sanctions. Click here to read the Conduct Code. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Software Use
All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and

rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy
There are federal laws protecting your privacy with regard to grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

Campus Resources:

Health and Wellness
U Matter, We Care: If you or someone you know is in distress, please contact [umatter@ufl.edu](#), 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern, and a team member will reach out to the student in distress.

Counseling and Wellness Center: [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or [visit the Student Health Care Center website](#).

University Police Department: [Visit UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website](#).

Academic Resources
E-learning technical support: Contact the [UF Computing Help Desk](#) at 352-392-4357 or via email at [helpdesk@ufl.edu](#).

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

Writing Studio: 2215 Turlington Hall*,* 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: [Visit the Student Honor Code and Student Conduct Code webpage for more information](#).

Online Students Complaints: [View the Distance Learning Student Complaint Process](#).