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Syllabus: AEB 3103, Principles of Food and Resource Economics, Fall 2025

Here is a pdf version of the syllabus.

AEB 3103, Principles of Food and Resource Economics, Fall 2025[1]
Lecture: T/Th 11:45 am - 1:40 pm
Location: 0103 Fine Arts B

Primary General Education Designation: Social and Behavioral Sciences (S); Area Objectives available here
(Note: A minimum grade of C is required for general education)

Instructor: Dr. Xinde "James" Ji
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Tel: (352)294-7658
Office Hours: Tuesday/Thursday 2:00-4:00 pm
Location: Physically at my office (1193 McCarty Hall A) and virtually via Zoom at https://ufl.zoom.us/j/99893556318

Teaching Assistant: Mr. Md Sayemul "Sayum" Islam
Email: islam.md1@ufl.edu
Office Hours: Monday 11 - 12:30 am (online and in person location TBD); Friday 9:30 - 11 am (online only)
Location: In person location TBD, and virtually via Zoom at https://shorturl.at/7IfpJ

Undergraduate Advisor: Ms. Michelle Baldwin; 1170B McCarty Hall A; (352)294-7640;
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Undergraduate Coordinator: Dr. Misti Sharp; 1189 McCarty Hall A; (352)294-7632;
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1. Teaching Mode

This class will be taught fully in person unless otherwise notified.

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[1]Disclaimer: part of this syllabus is generated by Microsoft CoPilot, v1.104.341.

2. Course Description

AEB3103 is a comprehensive economics course designed to give students a strong foundation in economic theory. It is designed to familiarize students with an "economic way of thinking" and tools of modern economic analysis *(S)*. These methods and tools will enable students to critically dissect and evaluate economic issues encountered in business, politics, and their everyday lives *(S)*. AEB3103 will cover the microeconomic fundamentals that govern the theory of the consumer; production economics; economic theory of the firm; the functioning and anatomy of markets; agricultural production and policy; the economics of globalization; and international trade *(S)*.

AEB 3103 is an upper-division course and it will be structured and taught accordingly. The rigorous nature of this course and its importance in the curriculum means you should plan on spending on average two hours of studying outside of class for every hour of lecture time. Thus, given that this is a four-credit course, you should plan on spending about eight additional hours per week studying for AEB3103. During exam weeks, the time-commitment will be significantly higher. A lower study input will more than likely adversely affect your grade.

3. Prerequisites

MAC2233 or MAC2311 (or the equivalent). AEB3103 will be taught with the assumption that all students are comfortable with quantitative reasoning, analytical methods, graphs, and algebra. Previous exposure to economics, however, is not necessary. It is recommended that if you are an FRE student, you take this course concurrently with AEB3510 (Quantitative Methods) as the courses together provide a foundation for upper-level study in FRE.

4. Expected Student Learning Outcomes:

After the successful completion of AEB 3103, a typical student should be able to:

Content: Identify, describe and explain key themes, principles, and terminology; the history, theory and/or methodologies used; and social institutions, structures, and processes.

- Understand the microeconomic principles and fundamentals underlying consumer behavior (S)
- Classify different market structures and how they influence firm behavior and social welfare (S)
- Describe the effect of globalization and trade on consumers and producers (S)
- Explain sources of market failure and ways to correct them (S)

Achieved through reading and reflections, class discussions, assignments, and exams

Critical Thinking: Apply formal and informal qualitative or quantitative analysis effectively to examine the processes and means by which individuals make personal and group decisions. Assess and analyze ethical perspectives in individual and societal decisions.

- Assess economic and social news and events with greater sophistication (S)
- Apply intuitive, graphical and formal economic analysis to evaluate everyday economic and social phenomenons (S)
- Appraise the effects and merits of major public policies using economic tools (S)

Achieved through reading and reflections, class discussions, assignments, and exams

Communication: Communicate knowledge, thoughts and reasoning clearly and effectively. * Propose and formulate economic arguments verbally and in writing (S)

Achieved through reading and reflections, class discussions, assignments, and exams

5. Textbook

Required
`Microeconomics`, 5th edition, by Paul Krugman and Robin Wells, 5th Edition. Worth Publishers. 2017.

ISBN: 978-1319098759. The textbook is available for purchase at the UF Bookstore.

Optional
All other textbooks and readings will be posted on Canvas.

Materials and Supply Fees
Not Applicable.

6. Grading

You will be evaluated with a total of 500 points, which consist of the following:

1. Thoughts and Questions (75 points, 15% of your grade)
   At the start of each week, you should read and reflect on the relevant book chapter(s), and answer the following question:
   `What did you find most challenging, confusing, or noteworthy about the reading?`
   - You get 5 points for each TQ you submit as long as it is a good-faith effort.
   - Each TQ is due by 10 pm on the day before we start a new chapter.
   - Two lowest TQ scores will be dropped.
2. In-class Exercises (100 points, 20% of your grade)
   We will be solving most in-class exercises together. Gradings are based on correctness, but you should be able to get the correct answer with active participation in class.
   - You get a maximum 10 points for each in-class exercise you submit.
   - Each in-class exercise is due 5 minutes after we finish the exercise in class. **No late submission is accepted.**
   - Two lowest in-class exercise grades will be dropped.
   - Exemptions will be made for the following occasions: University athletes participating in events; Students participating in official university sponsored events; Students with documentation from the Dean of Students Office; Students with documented sickness accompanied by a doctor's note or equivalentl; or Students having religiuos observations. Valid documentations must be receive no later than 24 hours after the missed class. Excused other than the above-mentioned cases will not be accepted.
3. Problem Sets (75 points, 15% of your grade)
   - There will be 5 assignments throughout the semester.
   - The lowest grade from the assignments will be dropped.
   - You will have one week to complete each assignment. Late assignments are accepted, though it reduces your grade by 10% each day.
   - All assignments are individual unless otherwise stated.
4. Exams and video project (250 points, 50% of your grade)
   - Two midterm exam and a final exam will be given. Each exam worth 100 points.
   - The lowest of the three exams will be counted with half (50%) the weight.
     - For example, you get 95, 84, and 76 in your three exams. Your final score will be 95+84+76*50% = 217 points.
   - You may substitute one exam score with an individual three-minute video project on a topic of your choice.
   - Should you miss any of the exams, that exam score is simply dropped regardless of reason. Make-up exams are not given due to temporary illness.
   - University athletes, students participating in official university sponsored events, and students with documentation from the Dean of Students Office may be given a make-up exam pending ample written notification in advance (at least 7 days prior to a scheduled exam). Documentation is required.

Points will be translated into grades according to the following table. For information on current UF policies for assigning grade points, see https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/.

Your grade will be strictly based on the grading criteria listed above. **I will not reply to emails asking for extra credits, grade changes, grade bumps, or anything else in that nature.**

Grade	Points	Grade Points
A	>465 (93%)	4.00
A-	450-464 (90%-92.9%)	3.67
B+	430-449(86%-89.9%)	3.33
B	415-429(83%-85.9%)	3.00
B-	400-414(80%-82.9%)	2.67
C+	380-399(76%-79.9%)	2.33
C	365-379(73%-75.9%)	2.00
C-	350-364(70%-72.9%)	1.67
D+	330-349(66%-69.9%)	1.33
D	315-329(63%-65.9%)	1.00
D-	300-314(60%-62.9%)	0.67
E	<300(<60%)	0.00

7. Class Policies

7.1. General Statement This course adheres to all UF Academic Policies: https://go.ufl.edu/syllabuspo licies

7.2. Late work Late work for thoughts and questions and assignments, are accepted with a 10% penalty each day. No late assignments will be accepted after the answer key is posted. Late in-class exercises will not be accepted.

7.3. Use of Generative AI and Large Language Models I view AI as a foundational tool in a post-AI world, just like calculators 50 years ago and search engines 15 years ago. Ways to generative AI effectively is an emerging skill that could, and should, be learned, just like you learned how to use a calculator in middle school. Hence, unless otherwise stated, you are welcome to complete work with the help of artificial intelligence tools and large language models (LLMs) unless otherwise stated (ChatGPT, Claude, Llama, Gemini, Stable Diffusion, Midjourney, GitHub Copilot, and anything after) in an unrestricted fashion, for any purpose, at no penalty.

You should note that many large language models, especially earlier, unpaid versions, still have a tendency to make up incorrect facts and fake citations, produce inaccurate outputs, and reinforce previously madeup outputs. This includes solving mathematical problems with incorrect intermediate steps and final solutions.[2] You will be responsible for any inaccurate, biased, offensive, or otherwise unethical content you submit regardless of whether it originally comes from you or a generative AI.

The university's policy on plagiarism still applies to any uncited or improperly cited use of work by other human beings, or submission of work by other human beings as your own.

Here are some best practices on understanding and using generative AI (Gagnon 2023)[3]:

- AI can be a valuable tool for augmenting human decision-making and critical thinking, but it is not a replacement. The quality of the AI-enhanced work is only as good as the quality of the input and the human's ability to **interpret and refine** the output.
- If you provide minimum effort prompts, you will get low quality results. You will need to refine your prompts to get better outcomes. This will take time and practice.
- Don't trust anything the systems says. Assume it is wrong, unless you already know the answer and can verify with trusted sources. It works best for topics you deeply understand.

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[2]During the Spring 2023 semester, I asked chatGPT to solve six Principles of Economics problems in class. The free ChatGPT (v. 3.5) got 1 out of the 6 problems wrong on the intial attempt, and 2 out of 6 wrong after iteration. The paid ChatGPT (v. 4) got 4 out of the 6 problems correct on the initial attempt. Recent (Summer 2024) reports by Professor Justin Wolfers (University of Michigan) suggests that LLMs can solve most of the principles of economics problems correctly, though my test suggests that ChatGPT (version o1) still miss some questions for the final exam of my class.

[3]The quoted texts are written by Dr. Ryan Gagnon (Clemson University): https://twitter.com/theryangagnon

- Use your best judgement to determine if/where/when to use these tools. They don't always make products easier and/or better.

8. Important Dates

- 8/21 First day of class
- 9/11 No class - Instructor Travel
- 10/10 Midterm exam 1
- 10/16 No class - Instructor Travel
- 11/20 Midterm exam 2
- 12/3 Optional Video Project Due
- Final Exam: 12/12, 7:30-9:30 am

9. Course Outline

Note: the course outline is alive and breathing, so it may evolve spontaneously as the course goes along.

Part 1: The Market Model

Week 1: Introduction and Principles

- Summary: Introducing economics as a social science discipline. Introducing the ten principles of economics.
- Required Readings: Krugman & Wells Chapter 1, pp. 5-24

Week 2-4: Supply, Demand, and Equilibrium

- Summary: Introducing demand curve; supply curve; moving along and shifting curves; market equilibrium
- Required Readings: Krugman & Wells Chapter 3, pp. 65-100
- Assignment: Homework #1

Week 5: Economic Surplus

- Summary: Consumer and producer surplus; Social welfare
- Required Readings: Krugman & Wells Chapter 4, pp. 101-128

Week 6: Elasticity

- Summary: Price elasticity of demand; income elasticity of demand; cross-price elasticity
- Required Readings: Krugman & Wells Chapter 6, pp. 157-182
- Assignment: Homework #2

Week 7: Midterm 1

Part 2: Policy and Trade

Week 8: Price Control and Quotas

- Summary: Government failure and rent-seeking; Price controls; Quotas; Deadweight loss from price or quantity controls;

- Required Readings: Krugman & Wells Chapter 5, pp. 129-156

Week 9: Taxes

- Summary: Tax incidence; deadweight loss from taxation; tax revenue
- Required Readings: Krugman & Wells Chapter 7, pp. 183-212
- Assignment: Homework 3

Week 10: International Trade

- Summary: Comparative Advantage; trade protection; importing competing and exporting industries; tariffs
- Required Readings: Krugman & Wells Chapter 8, pp. 213-244
- Assignment: Homework 4

Week 11-12: Decision-making; consumer theory

- Summary: Explicit and implicit costs; economic profit; rationality; diminishing marginal utility; income and substitution effects
- Required Readings: Krugman & Wells Chapter 9-10, pp. 245-270, 275-296
- Assignment: Homework 5

Week 13: Midterm 2