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

Here is a pdf version of the syllabus.

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#### AEB 3103, Principles of Food and Resource Economics, Fall 2023[^1]

Lecture: T/Th 11:45 am - 1:40 pm Location: 0018 Matherly Hall

## 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 Email: xji1@ufl.edu 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 https://ufl.zoom.us/j/98346551673

**Teaching Assistant**: Yujuan Gao Email: yujuan.gao@ufl.edu Office Hours: Monday/Wednesday 4-5 pm. Location: TBD.

**Undergraduate Advisor**: Mr. Trey Gifford; 1170B McCarty Hall A; (352)294-7640; E-mail: agifford1@ufl.edu; Schedule an appointment **Undergraduate Coordinator**: Dr. Misti Sharp; 1189 McCarty Hall A; (352)294-7632; E-mail: mistisharp@ufl.edu; Schedule an appointment

**FRE Technology Assistance**: Dave Depatie; 1197 McCarty Hall A; (352) 394-7641; E-mail: ddepatie@ufl.edu

## **Teaching Mode**

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

## **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.

## 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.

## **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

- 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

## 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.

## 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
А	>465 (93%)	4.00
A-	450-464 (90%-92.9%)	3.67
B+	430-449(86%-89.9%)	3.33
В	415-429(83%-85.9%)	3.00
B-	400-414(80%-82.9%)	2.67
C+	380-399(76%-79.9%)	2.33
С	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

Grade	Points	Grade Points
D-	300-314(60%-62.9%)	0.67
E	<300(<60%)	0.00

## **Class Policies**

#### 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.

#### Academic Honesty:

Students are required to be honest in all of their university class work. Faculty members have a duty to promote ethical behavior and avoid practices and environments that foster cheating. Faculty should encourage students to bring incidents of dishonesty to their attention. A faculty member, in certain circumstances, can resolve an academic dishonesty matter without a student disciplinary hearing. The procedures and guidelines are available from Student Conduct and Conflict Resolution. Learn more about Student Rights & Responsibilities.

The Honor Code: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty 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."

#### **Plagiarism:**

The Student Honor Code and Student Conduct Code states that: "A Student must not represent as the Student's own work all or any portion of the work of another." Plagiarism includes but is not limited to:

- Stealing, misquoting, insufficiently paraphrasing, or patch-writing.
- Self-plagiarism, which is the reuse of the Student's own submitted work, or the simultaneous submission of the Student's own work, without the full and clear acknowledgment and permission of the Faculty to whom it is submitted.
- Submitting materials from any source without proper attribution.
- Submitting a document, assignment, or material that, in whole or in part, is identical or substantially identical to a document or assignment the Student did not author."

#### 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]:

- Al can be a valuable tool for augmenting human decision-making and critical thinking, but it is not a replacement. The quality of the Al-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.
- Use your best judgement to determine if/where/when to use these tools. They don't always make products easier and/or better.

#### Attendance and Make-Up Work:

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/ In general, you are expected to be in class each day and submit all work on time on e-Learning.

#### **Students Requiring Accommodations**

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click here to get started with the Disability Resource Center. 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.

#### **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/.

#### **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 the 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 regards to grades earned in courses and on individual assignments. For more information, please see the Notification to Students of FERPA Rights.

#### **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.

### **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.

GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the GatorWell website or call 352-273-4450.

#### **Academic Resources**

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail 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.

On-Line Students Complaints: View the Distance Learning Student Complaint Process.

#### Lauren's Promise: I will listen and believe you if someone is threatening you.

Lauren McCluskey, a 21-year old honors student athlete, was murdered on October 22, 2018, by a man she briefly dated on the University of Utah Campus. We must all take actions to ensure this never happens again. Any form of sexual harassment or violence will not be excused or tolerated at the University of Florida. If you are experiencing sexual assault, relationship violence, or stalking, you can take the following actions:

- If you are in immediate danger, call 911.
- Report it to me, and I will connect you to resources.
- Seek confidential sources of support and help:
- UFPD Office of Victim Services: 51 Museum Road, 352-392-5648
- Sexual Assault Recovery Services (SARS): Infirmary Building, 352-392-1161
- Alachua County Rape Crisis Center (confidential): 352-264-6760

## **Important Dates**

- 1/14 First day of class
- 3/6 Midterm exam 1
- 4/17 Midterm exam 2
- 4/23 Optional Video Project Due
- Final Exam: 5/1, 10:00 am 12:00 pm

## **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

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

[^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