

**Agricultural and Applied Economics 101:**  
**Introduction to Agricultural and Applied Economics**  
**College of Agricultural and Life Sciences**  
**University of Wisconsin-Madison**  
**Fall Semester 2025**

**Instructor**

Tessa Conroy

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Office Hours:

TR 8:30-11:30 am (Zoom and In-person)

By appointment.

Office Hours Zoom:

<https://uwmadison.zoom.us/j/94722311660?pwd=L0JpYZoXcdZbivZOxhvBtMYaBiJPID.1>

**Teaching Assistants**

Theresa Ng'andu

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Office Hours:

M 10:30 am-12:30 pm (In-Person)

T 11:15 am-12:15 pm (Zoom): <https://uwmadison.zoom.us/j/6273337009>

**Course Purpose**

Welcome to AAE 101! The purpose of this course is to introduce you to the discipline of economics with some emphasis on agricultural and other applied topics. We will explore agricultural, food, and fiber markets at their intersection with a number of subfields of applied economics such as public economics, international trade, immigration, healthcare, and labor markets. By applying economic principles to real world topics and timely social issues, I hope you find that economics offers a useful way to structure problems and better understand our economic, social, and political systems.

This is an introductory course. It presumes no knowledge of either economics or agriculture. For students contemplating a major in agricultural and applied economics, this course represents the ideal spot to acquire a broad perspective of the field. For students majoring in

other disciplines, this course is a good place to acquire basic economic tools for approaching and structuring real world issues. For students who are uncertain about their major, this course represents an opportunity to see what applied economists study and how they look at the world.

**Pre-requisite:** Completion of quantitative reasoning A requirement.

### **Course Description**

Introduction to economic ways of thinking about a wide range of problems and issues. Topics include consumption, production, prices, markets, finance, trade, pollution, growth, farming, taxes, and development.

### **Course Learning Outcomes**

1. Demonstrate competency in fundamental economic concepts.
2. Develop analytical tools necessary to critically analyze applied economic topics including agricultural economics (aligning with the QR-B learning outcomes below).
3. Become familiar with a wide variety of economic issues and relevant policies, such as the challenges facing agriculture and related government interventions.
4. Apply concepts to real life examples.
5. Explain the social, economic, and/or environmental dimensions of the sustainability challenge(s) related to farming, pollution, and population growth.
6. Analyze the causes of and solutions for the sustainability challenge of agricultural and industrial production.

### **QR-B Learning Outcomes**

In the disciplinary or interdisciplinary context of a course, students will:

- Manipulate quantitative information to create models, and or devise solutions to problems using multi-step arguments based on and supported by quantitative information.
- Evaluate models and arguments using quantitative information.
- Express and interpret in context models, solutions, and/or arguments using verbal, numerical, graphical algorithmic, computation or symbolic techniques.

### **Course Structure**

**Credits:** 4 credits

#### **Lecture**

Day and Time: TR 1:00-2:15 pm

Location: Russell Labs 184

This class meets for a total of 4 class period hours [Two 75-minute lectures and one 50-minute Section meeting] each week over the semester and carries the expectation that students will work on course learning activities (reading, writing, problem sets, studying, etc) for about 2 hours out of the classroom for every class period.

Attending lectures really will help you learn the material. Lectures will include in-class assignments that will count for credit and exam material will be largely drawn from lectures. I suggest you read the topical chapters before coming to class. All topics covered on the exams will at least be highlighted in lecture or your problem sets; note that there will be considerably more material in the text than is presented in class. The course schedule indicates what material will be covered and the relevant reading but may be adjusted to better suit the students.

### **Sections**

This class will meet one time per week in smaller classes for Discussion Section with the teaching assistant. Section is a great opportunity to ask questions, participate in discussion, and engage the material and you are expected to attend. The goals of the breakout sessions are: a) to let students ask questions, b) review, augment, and apply the material taught in the previous two lectures and c) to present new material.

In addition to the material covered, there will be a number of in-class assignments completed and graded for credit during Section. You will need to be in attendance to earn credit for such assignments. The material presented in Section will contribute to your success in the class and you are expected to attend.

R: 3:30-4:20 pm	290 Nutritional Sciences
R: 4:35-5:25 am	150 Russell Laboratories
F: 11:00-11:50 am	104 Russel Laboratories
F: 1:20-2:10 pm.	104 Russel Laboratories

### **Textbook and Readings**

The required text for the course is ***Microeconomics: Principles, Policies and Problems*** 21st ed. by McConnell, Brue, and Flynn. Recent older version will likely suit the needs of the course, but cannot be guaranteed. A soft cover and loose leaf are available depending on your preference.

In addition to the textbook, the course will incorporate a number of articles and podcasts from new outlets and economics blogs such as *The Economist*, *New York Times*, *Wall Street Journal*, NPR, and FiveThirtyEight.

### **In-Class Assignments and Problem Sets**

There will be a number of in-class assignments including some during class and Section that will be graded for credit. These will generally be graded on a two-point scale: 2 Complete, correct, thorough; 1 partly complete, partially correct, lacks detail; 0 incomplete, incorrect, no detail. There will also be longer problem sets, one or two before each exam. Specific details on each

problem set will be given in class and posted on the course site when they come up in the semester.

### **Top Hat**

We will be using the Top Hat ([www.tophat.com](http://www.tophat.com)) classroom response system in class to submit some in-class assignments which will be graded as part of your Homework. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message.

You can visit the Top Hat Overview (<https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide>) within the Top Hat Success Center, which outlines how you will register for a Top Hat account, as well as provides a brief overview to get you up and running on the system.

The best way to register is to enter TopHat through our course website in Canvas. There is a TopHat link on the far-left menu that will take you to our course.

Note: Our Course Join Code is 144134.

### **Support**

Should you require further assistance with Top Hat, the Support Team is there to help! You can contact them directly by way of email ([support@tophat.com](mailto:support@tophat.com)), the in app support button, or calling us at 1-888-663-5491.

### **Exams**

Due to the large number of students in the class, exams can only be given at the scheduled time. If you miss a midterm due to an illness or personal emergency, the weight of the midterm will go onto the final. You must discuss this option with me if you feel it is appropriate for your circumstances.

*Example:* Assume you score an average of 82% on homework, 90% on the first midterm, miss the second midterm, and finish with 70% on the Final. You will receive a 70% for the second midterm (since that was your score on the Final). Thus, your final percentage score will be

*.25 \* First midterm score*

*+ .25 \* Final exam score instead of missed second exam score*

*+ .25 \* Final exam score*

*+ .25 \* Homework scores*

or

$$(.25*.9)+(.25*.7)+(.25*.7)+(.25*.82)=.78$$

Please come see me if you have any particular needs or to address any concerns regarding the course and/or exams.

### **Academic Integrity**

Academic honesty is expected. Students are accountable to uphold the core values of academic integrity and comply with UW-Madison policies and state laws regarding academic misconduct. Please familiarize yourself with the potential consequences of misconduct at the webpage of the Dean of Students: <http://www.students.wisc.edu/doso/academic-integrity/>.

### **Artificial Intelligence Policy**

AI (e.g., ChatGPT, Gemini) is becoming a common tool for students and I understand that it will be used for this class. Using AI is an emerging skill that has to be honed and practiced. As with any tool and the skill of using it, it is important to know when and where it is appropriate to use and its limitations. We'll be experimenting and developing this skill together.

#### **Some Limitations**

- 1) AI is vulnerable to discrimination because it can inadvertently (or intentionally) perpetuate existing biases present in the data it is trained on. For example, if an AI system is trained on data from urban residents, the system may make decisions that are incorrect, unfair, or discriminatory towards rural residents.

There are several reasons why AI systems can perpetuate discrimination:

- a. Bias in the training data: If the training data contains biases, the AI system may learn and replicate those biases in its decision-making.
  - b. Lack of diversity in the training data: If the training data does not include a diverse range of examples, the AI system may not perform well on diverse inputs, which may lead to discrimination.
  - c. Lack of transparency: Some AI systems can be difficult to understand and interpret, making it challenging to detect and correct for biases.
  - d. Lack of accountability: Without proper oversight and accountability, it can be difficult to identify and address discrimination in AI systems.
  - e. It is important to keep in mind that these biases can be unconscious, unintended and hard to detect, but they can have serious consequences if they are not addressed.
- 2) AI can be a valuable tool for augmenting human decision-making and critical thinking, but it is not a replacement. The point of class work is not the output per se but the process of learning. As you use AI, I hope that you are oriented toward enhancing learning.
  - 3) If you provide minimum effort prompts, you will get lowquality results. You will need to refine your prompts to get better outcomes. This will take time and practice.

- 4) AI can be wrong and you should assume that it is. You should verify the answers and check with trusted sources. It works best for topics you deeply understand. You will be responsible for any errors or omissions provided by the tool.
- 5) Use your best judgement to determine if/where/when to use these tools. They don't always make products easier and/or better. For this class, you may find that it is helpful for grammar, rigor, and style; helping you find an expression.

#### Use only with acknowledgement

Students are allowed to use advanced automated tools (artificial intelligence or machine learning tools such as ChatGPT) on **take-home assignments** in this course if that use is properly acknowledged. At the end of your handwritten assignment, write a short paragraph to explain which AI tool you used and how it, for *each homework question*. This paragraph may be typed. Include the prompts you used to get the results. Failure to do so is in violation of academic integrity policies.

#### Use prohibited

Students are not allowed to use advanced automated tools (artificial intelligence or machine learning tools such as ChatGPT) on **in-class assignments or exams** in this course.

Note: This policy is adapted from #16 Advanced Quantitative Analyses, Clemson University; #20 Examples provided for all courses University of Delaware; #22 Introduction to Critical Theory, George Washington University.

[https://docs.google.com/document/d/1RMVwzjc1o0Mi8Blw - JUTcXv02b2WRH86vw7mi16W3U/edit?tab=t.0](https://docs.google.com/document/d/1RMVwzjc1o0Mi8Blw-JUTcXv02b2WRH86vw7mi16W3U/edit?tab=t.0), Accessed 9/2025)

## Grades

### Weights

Exam #1	25%
Exam #2	25%
Final	25%
In-Class Assignments and Problem Sets	25%

Final grades will be based on the weighted average of the normalized scores and placed on the following scale:

A 94 and above

AB 88-94

B 80-87

BC 75-79

C 65 -74

D 50-64

F below 50

### **Course Feedback**

You will have opportunities to evaluate me as well. Although these surveys are not required, I would greatly appreciate your honest (and anonymous) thoughts and suggestions on the course.

## Course Schedule

**\*Subject to adjustments as appropriate.**

Week	Date	Topic	HW
Week 1	4-Sep	Intro and Limits, Alternatives and Choices	
Week 2	9-Sep 11-Sep	The Market System and Circular Flow	
Week 3	16-Sep 18-Sep	Demand, Supply, and Market Equilibrium	
Week 4	23-Sep 25-Sep 26-Sep	Market Failures: Public Goods and Externalities	HW1 Posted
Week 5	30-Oct 2-Oct	Government's Role and Government Failure	
Week 6	7-Oct 9-Oct	International Trade	HW1 due
Week 7	14-Oct 16-Oct	<b>Exam 1</b> Utility Maximization	
Week 8	21-Oct 23-Oct	Elasticity	HW 2 Posted
Week 9	28-Oct 30-Nov	Agricultural Economics and Policy	
Week 10	4-Nov 6-Nov	Natural Resource and Energy Economics	HW2 due
Week 11	11-Nov 13-Nov	<b>Exam 2</b> Businesses and The Cost of Production	
Week 12	18-Nov 20-Nov	Perfect Competition	
Week 13	25-Nov 27-Dec	Market Power <i>Thanksgiving Day</i>	HW3 Posted
Week 14	2-Dec 4-Dec		HW3 due
Week 15	9-Dec 11-Dec	Study Day	
	17-Dec	<b>Exam 3/Final Exam 7:45 am-9:45 pm</b>	

\*Please contact me if we need to discuss alternatives.