

Agricultural Price Analysis and Forecasting

AGEC 4113

Spring 2021

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Office Hours: Tue, Thu 1:00 PM - 2:00 PM or by appointment.

Course Description: Price theory and techniques for predicting price behavior of general economy and individual agricultural products will be analyzed. Provides practice in the application of economics and statistics to agricultural price analysis.

Learning Outcomes: The field of agricultural economics is becoming increasingly quantitative, and students with a background in agricultural economics are in high demand for their quantitative toolkits. We will develop and expand your analytical and quantitative skills. It is my goal that students completing this course will:

1. develop an understanding of price theory,
2. access and analyze agricultural and economic data,
3. predict price behavior of agricultural commodities and the general economy,
4. effectively communicate results and findings from a quantitative analysis of agricultural markets and prices, and
5. gain the knowledge necessary to be a market and price analyst.

Prerequisites: (AGEC 1103 or ECON 2023) and (AGEC 2403 or AGST 4023 or STAT2303 or WCOB 1033) and (MATH 2043 or higher (excluding MATH 2183)).

Course Materials: A laptop computer is required for this course, and you are required to bring your laptop to every class period for the course. Students can reserve and check-out laptops at <https://its.uark.edu/stc/equipment-checkout/index.php>. You are also required to have Microsoft Excel® 2013 or newer for PC and/or Microsoft Excel® 2011 or newer for Mac. You should also have a USB flash drive that you bring to class. See the class website on UARK Blackboard for information on how to download Excel®.

Suggested Textbook: None.

Required Notes: Most of the material for this course will come from notes and slides written by Prof Mitchell. Lectures notes will be made available to the student on the course website. There will be occasional assigned readings that will be provided on the course website.

Course Website: The course will use Blackboard <https://learn.uark.edu/>. You are required to retrieve materials for the course through Blackboard. Grades will be posted to Blackboard.

Grading: Grades will be assigned on a 90/80/70/60 scale for A/B/C/D/F, respectively. You should not expect percentages or points to be rounded in this course. You have seven

calendar days from the time a grade is posted to bring any grading errors to my attention and to raise any grading questions.

Student course grades will be derived based on the following weighting system:

1. Assignments 25%
2. Quizzes 15%
3. Exam 1 15%
4. Exam 2 20%
5. Final Exam 25%

I encourage you to work and study together, discuss the material, and review for the quizzes and exams together. However, all work that is submitted for a grade should be your work so that it reflects your own understanding and not copied from someone else. You are not permitted under any circumstances to share or provide to another student your homework files or work. If you are having trouble accessing a file from Blackboard, then you must contact me.

Attendance: All classes will be recorded this semester for students needing to quarantine, self-isolate, and/or miss class due to COVID-19.

“Each person must do their part and is expected to comply with university guidelines to reduce virus spread to our campus community. Safety guidelines and requirements including face coverings, social distancing, hand washing, and study/work space disinfecting can be found at <https://health.uark.edu/coronavirus/latest-information-for.php#safety>. Updates to these safety guidelines may change throughout the semester. You are responsible to remain informed about changes and conduct yourself accordingly. Violations of campus and/or classroom safety policies will be considered conduct violations. Detailed information about such violations is located at the Office of Student Standard and Conduct website: <https://ethics.uark.edu/>. Thank you for your help in keeping the University of Arkansas healthy and safe. We are all in this together.”

Assignments: Undergraduate students are required to complete five take-home assignments. Assignments will be posted to the class website on Blackboard. Completed assignments will be submitted in Blackboard. Assignments will only be accepted by USB flash drive or email by very rare exception. Turning in a late assignment will reduce the grade earned by one half. Once an answer key is posted, late submissions will no longer be accepted. You must see me directly to be able to earn credit for a missed assignment. If for some reason you cannot finish an assignment on time, then please contact me immediately.

Graduate students are NOT required to complete assignments. However, it is highly encouraged that graduate students submit completed assignments for my review. I will provide feedback on assignments that are submitted by graduate students but will not assign a grade. Exams and quizzes draw heavily from material covered in the take-home exercises.

Graduate Student Term Papers: Each graduate student will write a term paper on an agricultural commodity of their choice that is worth 25% of the final course grade.

There will be two conferences with me to discuss the topic and appraise progress. A handout gives more detail about how to write this paper.

A very precise schedule is being given in which various phases of the term paper are due. Graduate students are urged to complete the various parts of the term paper on time. Points will be deducted for being late. In addition, the instructor has a pathological aversion to course incompletes and will only grant an incomplete for compelling reasons such as medical problems of self or immediate family members (parents, spouse, children or other dependents). Being “busy” with other classes or a job are not legitimate excuses (military service being an exception).

Graduate students will also present a 10-minute presentation to the class on their term paper during the term’s last weeks. The format of paper presentations will be the same as if you were presenting at a professional conference.

Quizzes: There will be three announced quizzes in the course. These quizzes are intended to help prepare you for an exam. Quizzes will be in-class and closed book. Students will have 30 minutes to complete the quiz.

In general, no make-up quizzes will be given and you must be in attendance to earn credit. Students can take a quiz early for a bona fide reason. If a personal emergency causes you to miss a quiz, then you need to notify me as quickly as possible if you wish to request any consideration of the emergency situation, and you need to provide documentation of the emergency situation. Failure to notify me in a legitimately timely manner will be deemed lack of a real emergency.

Exams: Three examinations will be given during the semester. The first and final in-class exam will be written and closed book. The final exam is comprehensive and worth 25% of your grade. The two midterm exams are worth 20% of your grade. The second in-class exam will be taken on the student’s laptop and will require computations on the computer. During the second exam, student’s will download an Excel® file and a pdf copy of instructions from Blackboard. Student’s must submit their answers to the second exam in Blackboard by the end of the class period.

In general, no make-up exams will be given and you must be in attendance to earn credit. Students can take an exam early for a bona fide reason. If a personal emergency causes you to miss an examination, then you need to notify me as quickly as possible if you wish to request any consideration of the emergency situation, and you need to provide documentation of the emergency situation. Failure to notify me in a legitimately timely manner will be deemed lack of a real emergency.

Academic Dishonesty: This course strictly follows all university academic integrity policies.

“Each University of Arkansas student is required to be familiar with and abide by the University’s ‘Academic Integrity Policy’ which may be found at <http://provost.uark.edu/>. Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor.”

Disabilities: “University of Arkansas Academic Policy Series 1520.10 requires that stu-

dents with disabilities are provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact me privately to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through the Center for Educational Access (contact 479-575-3104 or visit <http://cea.uark.edu> for more information on registration procedures).”

Inclement Weather: If the University is open, we will have class. As the instructor, I reserve the right to cancel class due to inclement weather. Students will be notified by email and Blackboard if this is the case. Please use your best judgment before getting on the road. See UA Inclement Weather Policy at <http://emergency.uark.edu/inclement-weather/index.php>.

Emergency Procedures: Many types of emergencies can occur on campus; instructions for specific emergencies such as severe weather, active shooter, or fire can be found at <http://emergency.uark.edu>.

Severe Weather (Tornado Warning):

- Follow the directions of the instructor or emergency personnel
- Seek shelter in the basement or interior room or hallway on the lowest floor, putting as many walls as possible between you and the outside
- If you are in a multi-story building, and you cannot get to the lowest floor, pick a hallway in the center of the building
- Stay in the center of the room, away from exterior walls, windows, and doors

Violence / Active Shooter (CADD):

- CALL- 9-1-1
- AVOID-If possible, self-evacuate to a safe area outside the building. Follow directions of police officers.
- DENY-Barricade the door with desk, chairs, bookcases or any items. Move to a place inside the room where you are not visible. Turn off the lights and remain quiet. Remain there until told by police it's safe.
- DEFEND-Use chairs, desks, cell phones or whatever is immediately available to distract and/or defend yourself and others from attack.

Course Schedule: See the attached tentative course schedule for additional detailed information.

Disclaimer: I reserve the right to adjust the syllabus, outline and schedule at any time and will notify students if changes are made.

AGEC 4113 TENTATIVE Spring 2021 Course Schedule

Date	Topics/Assignments/Readings	Due Dates
Week 1		
1/12	Course Introduction, Role of Prices	
1/14	Index Numbers and Inflation	
	Assignment 1: Index Numbers and Data Collection	1/28 at 11:59 PM
Week 2		
1/19	Index Numbers and Inflation	
1/21	Movement of Prices Over Time - Trends	
Week 3		
1/26	Least Squares Regression Analysis	
1/28	Least Squares Regression Analysis	
	Assignment 2: Analysis of Trends	2/11 at 11:59 PM
Week 4		
2/2	Least Squares Regression Analysis	
2/4	Methods of Statistical Hypothesis Testing	
Week 5		
2/9	Autocorrelation	
2/11	Movement of Prices Over Time - Cycles	
Week 6		
2/16	Movement of Prices Over Time - Cycles	
	Assignment 3: Analysis of Cycles	2/25 at 11:59 PM
2/18	Movement of Prices Over Time - Cycles	
	Quiz 1	
Week 7		
2/23	Student Holiday	
2/25	Review for Exam 1	
Week 8		
3/2	Exam 1	
3/4	Movement of Prices Over Time - Seasonality	
Week 9		
3/9	Movement of Prices Over Time - Seasonality	
	Assignment 4: Analysis of Seasonality	3/23 at 11:59 PM
3/11	Movement of Prices Over Time - Seasonality	
Week 10		
3/16	Price Determination and Price Discovery	
3/18	Theory of Supply Relationships	
Week 11		
3/23	Theory of Demand Relationships	
3/25	Student Holiday	
Week 12		
3/30	Estimation of Supply and Demand	
4/1	Estimation of Supply and Demand	
	Assignment 5: Analysis of Seasonality	4/20 at 11:59 PM
Week 13		
4/6	Estimation of Supply and Demand	
4/8	Estimation of Supply and Demand - Alternative Models	

	Quiz 2
Week 14	
4/13	Review for Exam 2
4/15	Exam 2
Week 15	
4/20	Law of One Price and Spatial Price Relationships
4/22	Marketing Margins
	Quiz 3
Week 16	
4/27	Graduate Student Paper Presentations
4/29	Graduate Student Paper Presentations
Week 17	
5/4	Finals Week
5/6	Finals Week

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