

AGEC5103. Agricultural Microeconomics

Instructor: Qiuqiong Huang

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Office hours (@ 221 Agriculture Building): Flexible. Usually afternoons [1-5pm] before problem set due dates.

By Appointment [Please email or phone to schedule appointments].

You can always stop in and ask questions anytime the light is on in my office. If I am busy when you stop by, we will arrange for a mutually convenient time to meet.

Lecture hours: Tuesdays and Thursdays, 12:30 PM - 1:45 PM, AGRX0201

Objective of the course: This course represents Masters-level training in microeconomic theory and its application to food, agriculture and the environment. The course focused on the traditional topics of microeconomics, behavior of firms, households and markets, in more depth and rigor than encountered in undergraduate courses. For each topic, theories are explained and then applications relevant to food, agricultural, environment and resource issues are described. The emphasis will be on understanding microeconomic applications rather than theoretical or mathematical modeling. Upon completion of the course, students should have the skills to function as applied microeconomists in the real world.

Prerequisites: Principle of microeconomics; Survey of calculus or equivalent; Graduate standing. Students are encouraged to take intermediate microeconomics in preparation for this course.

Textbook: Walter Nicholson and Christopher Snyder, *Microeconomic Theory: Basic Principles and Extensions*, 11th Edition.

- Answers to odd-numbered exercises are at the end of the textbook.

Course website: Most course materials will be posted on **Blackboard** (Syllabus, Class notes, Problem Set AKs, Exam info etc.)

Grading:

6 Problem sets	$\times 5\%$	$= 30\%$
2 EXAMs	$\times 20\%$	$= 40\%$
FINAL EXAM		20%
In-class Discussions [†]		10%

[†]There will be two or three classes allocated to discussions. Discussion questions will be distributed in advance. These questions will cover modeling exercises, empirical applications and policy questions. You are also encouraged to submit your own discussion questions.

Course Outline

Readings from Nicholson & Snyder in parentheses

I. Consumer Behavior and Demand

A. Preferences and Utility (Chapter 3)

Application: Organic versus conventional foods

B. Utility Maximization and Choice (Chapter 4)

Application 1: Why does Farm Bill need to include food stamp reform?

Application 2: Evaluation of environmental and resource values

C. Demand and Elasticity (Chapters 5 and 6)

Application 1: The power of elasticity in policy making (water demand, nutrition demand as examples)

Application 2: Why can't you buy premium pomegranate in California?

*Review of Mathematics (Chapters 1 and 2) is integrated into Part I.

EXAM 1

II. Producer Behavior and Supply

A. Production (Chapter 9)

Application: Comparison of US and Chinese agriculture.

B. Cost (Chapter 10)

Application: Are large-scale farmers the answer to Africa's food problem?

C. Optimization and Supply (Chapter 11)

Application: Food or energy? The impact of renewable energy subsidies on food supply.

Discussion: Do farmers maximize profit or minimize cost?

III. Extension of Consumer Theory

A. Uncertainty and Risk Aversion (Chapter 7)

Application 1: Does crop insurance help farmers? Does it increase social welfare?

Application 2: Why don't farmers adopt better technologies on all their land?

EXAM 2

IV. Theory of Markets

A. Perfect Competition (Chapters 12)

Application 1: Grain exchange.

Application 2: Evaluate the benefit of agricultural research (welfare analysis)

B. Monopoly (Chapter 14)

Application 1: Monsanto, pros and cons

Application 2: Are well owners in rural India monopolies in the groundwater market?

C. Imperfect Competition (Chapters 8 and 15)

Application: Cartels and nonrenewable resources

FINAL EXAM (December 16 1:00—3:00 PM)

I. Consumer Behavior and Demand Tentative Schedule

Dates		Topic
T	Aug 26	Introduction Preferences and Utility
Th	Aug 28	Preferences and Utility
T	Sep 2	Utility Maximization and Choice
Th	Sep 4	Application of Utility Maximization and Choice, Graphs
T	Sep 9	Expenditure Minimization
Th	Sep 11	Derive Demand Functions
T	Sep 16	Demand Analysis – Income and Substitution Effect
Th	Sep 18	Demand Analysis – Elasticity
T	Sep 23	Demand Analysis – CV, EV, CS
Th	Sep 25	Demand Analysis – Relationship among Goods
T	Sep 30	Discussion 1 (Discussion questions will be provided in advance)
Th	Oct 2	EXAM 1

Coverage of each lecture may vary depending on the progress of the class.

Tentative Schedule of parts II and later will be distributed later in the semester.

Classroom Rules

- Be on time for classes. No cellphone/iphone/ipad.
- Questions and discussions relevant to class are more than welcome.
- **Academic Integrity—Academic Honesty.** "As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail. Each University of Arkansas student is required to be familiar with and abide by the University's '[Academic Integrity Policy](http://honesty.uark.edu)' at honesty.uark.edu. Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor." Any scholastic dishonesty of yours will result in points taken off your Problem Sets or exams or even an F for the class grade. If you are caught cheating, campus procedures will be followed to exact the appropriate punishment.

Other Information

Emergency Preparedness— The University of Arkansas is prepared for a wide range of emergencies. Detailed information and contact numbers: <http://emergency.uark.edu/>

Inclement Weather— We will follow the campus's inclement weather policy (link below). If campus is closed, no lecture will be given. No assignment would be graded down in such a case and an exam would be re-scheduled. During inclement weather the instructor will try to communicate with students via e-mail. <http://emergency.uark.edu/17098.php>

RazALERT— The University of Arkansas has a campus-wide alert system for any hazardous conditions that may arise on campus. To learn more and to sign up: <http://razalert.uark.edu/index.php>

Academic Support— A complete list and brief description of academic support programs can be found on the University's Academic Support site, along with links to the specific services, hours, and locations. The instructor can assist you with finding and using the support services that will help you be successful. <http://www.uark.edu/academics/academic-support.php>

Learning Disabilities— Students with learning disabilities will be accommodated in accordance with campus policies. Students with such disabilities should contact the instructor early in the semester so that the means of accommodation can be arranged.