

AREC 605 Agricultural Production and Cost Analysis (2 credits)

Spring 2016

Lecture: T/Th: 11:00-11:45 AM, Natural Resources 106
W: 9:00-11:00 AM, Clark Building C-349

Instructor: Dr. Joleen C. Hadrich
Email: Joleen.Hadrich@colostate.edu
Office hours: T: 9:30-11:00 AM, by appt.

Office Phone: 970.491.2836
Office: B-303 Clark Building

Course Description

Empirical application and analysis of production and cost issues in the agricultural and natural resource sectors.

Class Organization

The class is organized as a lecture-discussion. Student-instructor interaction through class participation is critical in understanding the materials presented and core concepts of the course. Lectures will be presented using a variation of hand-written notes, econometric output, and student presentations. Problem sets, other materials and in-class worksheets will be distributed in-class or prior to class via CANVAS. There will be at least 3 problem sets, 1 midterm exam, and a cumulative final.

Prerequisites: AREC 506; AREC 535 OR ECON 535

Recommended Text:

Debertin, D.L. Agricultural Production Economics. 2nd edition, privately published, 1992.
Available at: <http://www.uky.edu/~deberti/prod/agprod5.pdf>

Selected readings available on CANVAS as the topics are discussed. Please visit the “modules” folder in CANVAS frequently to stay up-to-date on readings.

Course Objectives

The objectives of the course are:

1. Develop skills to identify relevant production economics research questions.
2. Understand how to identify appropriate theoretical frameworks with analytical methodology to complete informed empirical production economic analysis.
3. Master the key concepts of production economics, which includes input-output models, cost functions, duality, input demand and output supply, and production functions and functional form.
4. Provide experience in the economic analysis of production data.
5. Encourage direct student participation in classroom teaching and learning.

Tentative Grading Schedule

Your final grade is determined by homework, mid-term exam, a cumulative take-home final exam, and class participation. The points are assigned as follows:

Items	Percent
Mid-term Exam	30%
Take-Home Cumulative Final Exam	40%
Problem Sets (<i>at least 3</i>)	25%
Class Participation	5%
Total	100%

Grades are assigned approximately as:

Grade	Percent
A	<94%
A-	90-93.9%
B+	87-89.9%
B	84-86.9%
B-	80-83.9%
C+	77-79.9%
C	70-76.9%
D	60-69.9%
F	<60%

There will be no opportunities for “extra credit” in this course. Your grade is completely determined by the effort you put forth.

Exams (70%)

One mid-semester exam and a cumulative take-home final examination will be given. The *tentative* semester examination dates are **April 13th and May 5th**. The take-home cumulative final exam is due on **May 11th** at midnight. Exam dates may be changed should the university be closed for a weather-related event. You must contact me as soon as possible if you have a conflict with examination dates and make arrangements to write an exam prior to an excused absence.

Problem Sets (25%)

There will be *at least 3* problem sets assigned throughout the semester. Problem sets are expected to be completed individually and submitted in an easy to read and logical format. Un-organized submissions will automatically be deducted 5% of the overall grade.

Class Participation (5%)

In graduate classes, the expectation is students will be active participants in the learning process. This includes active engagement through topic related presentations, interaction during class lectures, and being collegial and respectful to classmates and guests.

Academic Integrity Policy

This course will adhere to the CSU Academic Integrity Policy as found in the General Catalog - 1.6, pages 7-9. (<http://www.catalog.colostate.edu/Content/files/2012/FrontPDF/1.6POLICIES.pdf>) and the Student Conduct Code (<http://www.conflictresolution.colostate.edu/conduct-code>). At a minimum, violations will result in a grading penalty in this course and a report to the Office of Conflict Resolution and Student Conduct Services.

Any students with disabilities who need accommodation in the course are encouraged to speak with the instructor as soon as possible to make appropriate arrangements for these accommodations.

Veterans and student soldiers with special circumstances or who are activated are encouraged to notify the instructor in advance.

Proposed Schedule

Dates	Topics covered and readings
March 22-24	Output of 1 product with 1 input <ul style="list-style-type: none">• <i>Debertin, Ch. 2-3</i>
March 29-31	Output of 1 product with 2 inputs <ul style="list-style-type: none">• <i>Debertin, Ch. 5-6</i>
April 5-7	Multiple Products, Joint Products, and Production Possibility Frontiers <ul style="list-style-type: none">• <i>Debertin, Ch. 15-16, selected readings</i>
April 12-14	Cost Functions, Duality, and Budgets <ul style="list-style-type: none">• <i>Debertin, Ch. 4, 19, 24-25, selected readings</i> <p>EXAM 1: APRIL 13TH</p>
April 19-21	Production Function, Functional Forms <ul style="list-style-type: none">• <i>Debertin, Ch. 10-11, 24, selected readings</i>
April 26-28	Agricultural Production Systems and Production Economics <ul style="list-style-type: none">• <i>Selected readings</i>
May 3-5	Technology adoption and Production Economics <ul style="list-style-type: none">• <i>Selected readings</i>
May 5	Take-home exam is distributed, due May 11th at midnight!