

**COURSE SYLLABUS**  
**FOR**  
**AGRICULTURAL ECONOMICS 619**

**Applied Economics**  
**Purdue University**  
**Fall 2007**

**Instructor:** Ken Foster  
656 Krannert Building  
Phone: 494-1116  
Office Hours: MTWTH 10:30-noon  
Clerical Assistant: Neisha Kennedy (KRAN 654)

**Course Description:**

The objective of this course is to enable students to use microeconomic theory and econometric tools to work on real-world economic problems and issues. Students will work on applied problems and the associated theories of producer or consumer behavior from the perspective of: How do you make the theory work for you? Through extensive homework exercises, students will develop in detail applied problems in producer and consumer behavior. For example, students will be asked to take a specific article, dealing with a particular functional form of either utility, cost, profit, or production function and work out all of those steps replaced by phrases such as “obviously” or “it is easily shown.” In most, if not all, instances this will be followed by either trying to replicate the empirical example of the paper or exploring the application of the technique to another data set. In addition, emphasis will be placed on testing hypotheses derived from theory under the assumptions of the various constructs. For example, students will determine what can be said about the slopes of decision functions (supply and demand) when risk aversion is incorporated into production models. Exercises to test such hypotheses will also be assigned on a regular basis.

**Prerequisites:**

Economics 607  
Ag Economics 651

**Texts:**

Chambers, Robert, Applied Production Analysis, Cambridge University Press, NY, 1988.

Cornes, Richard, Duality and Modern Economics, Cambridge University Press, NY, 1994.

Deaton, A. and J. Muellbauer, Economics and Consumer Behavior, Cambridge University Press, 1980.

## Grading:

Problem Sets and Critiques	25%
Manuscript	25%
Midterm Exam	25%
Final Exam	25%

## Policies:

1. Academic Integrity: Incidents of cheating on Exams or plagiarism on Manuscripts or Critiques will result in a failing grade for the course. If you are uncertain what constitutes cheating or plagiarism, then it is your responsibility to schedule a meeting with the instructor to discuss these issues before the end of the first week of the semester.
2. Incomplete grades are not given in AGEC 619 unless extremely extenuating circumstances warrant.
3. Late assignments will be graded by deducting points from the lowest score among those earned by students who turned their assignments in on time.
4. If you have circumstances that require special arrangements, then it is your responsibility to bring these needs to the attention of the instructor. You should do so in the first week of the semester.

## Course Outline:

- I. Why Do We Dual?
- II. Review of Methodology
  - A. Direct and Indirect Functions
  - B. Comparative Statics: Primal-Dual Approach
  - C. Distance Function
- II. Dual Estimation
  - A. Flexible Functional Forms:
    - Motivation and Flexibility
    - Functional Structure (homogeneity, homotheticity, substitution, separability)
    - Some Popular Examples: AIDS, LA-AIDS, Translog, Generalized Leontieff, Quadratic, Normalized Quadratic, CES
  - B. Static and Deterministic Econometric Models
    - Profit Max, Cost Min, Expenditure Min, and Utility Max
  - C. Static Econometric Models with Risk Aversion and Risk Neutrality
    - General Short-Run Approaches: Expected Utility max, Expected profit max.
    - Linear-Mean Variance Expected Utility Approach
    - Long-Run Approach
    - Modeling Expectations with Distributed Lags
  - D. Dynamic Models

- III. Imperfect Competition
  - NEIO Models: Oligopoly and Oligopsony
  - Time Series/Cointegration Model
- IV. Structural Change
  - Technical Change and Bias
  - Non-monetary Demand Influences
- V. Qualitative Choice Models

**Important Dates:**

Midterm Exam	-	October 15
Final Exam	-	TBA
Critiques (2)	-	September 12
	-	October 3
Term Paper	-	Last Day of Classes

**Texts on Library Reserve:**

Chambers, R. *Applied Production Analysis*.

Cornes, Richard, *Duality and Modern Economics*

Deaton, A. and Muellbauer, J. *Economics of Consumer Behavior*.

Pollak, R. and T. Wales, *Demand System Specification and Estimation*.

Silberberg, E. *The Structure of Economics: A Mathematical Analysis*.

**Course Website:**

<http://www.agecon.purdue.edu/academic/agec619/>