

AAEC 6464: Demand and Production Analysis
Spring 2007

Instructor: Everett Peterson
 202A Hutcheson Hall
 231-6108

Course Objectives

The focus of this course is on the application of economic theory to help analyze demand or production related problems or issues. Emphasis will be placed on the specification and interpretation of different models of consumer and firm behavior. Because this class is not intended as an econometrics course, less emphasis will be placed on estimation techniques. There are two objectives of this course. Upon completion, you should be able to:

- 1) apply neoclassical theories of consumption and production in the analysis of economic issues and public policies, and
- 2) select and estimate the appropriate model for a given economic or policy issue.

Prerequisites

Microeconomic theory (ECON 5005 and 5006) and econometrics (ECON/AAEC 5125 and 5126)

Optional Text

Because we will not closely follow a specific textbook, I have decided not to require students purchase a textbook. However, Deaton and Muellbauer and Chambers are good reference books that you may want to purchase. All required readings class notes, problem sets, and data sets will be available on Blackboard.

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

Chambers, Robert G. *Applied Production Analysis: The Dual Approach*. New York, New York: Cambridge University Press, 1988

Cornes, Richard. *Duality and Modern Economics*. New York, NY: Cambridge University Press, 1992.

Pollak, R.A. and T.J. Wales. *Demand System Specification and Estimation*, New York: Oxford University Press, 1992.

Varian, Hal R. *Microeconomic Analysis*, third edition, New York: W.W. Norton & Co., 1992.

Grading

Your final grade will be determined based on the following weights:

Class Participation/Presentations	20%
Problems Sets	40%
Term Paper	40%

Class Participation/Presentations

Given the small number of students, my intent is to structure this course as a readings course. Therefore, you will be expected to participate in class discussions as well as making in class presentations. I firmly believe the more you participate in class, the more you will learn. I will generally begin each topic or section with an introductory lecture and then assign specific readings to individual students for them to present in class. ALL students are expected to have read ALL assigned readings before class in order to participate in class discussion.

Each student will make 2 in class presentations on an assigned reading during the semester. Each presentation should be 20-30 minutes in length. Thus, you will need to identify and summarize the key concepts in the paper and not just present the paper verbatim. Your grade for each presentation will be based on the organization of the presentation (how well you have summarized and organized the material), the effectiveness of your slides/overheads, and your verbal presentation. A goal of these presentations is to give you experience in making technical presentations to professional audiences. A laptop and projector will be made available for you to use when making your presentations.

Problem Sets

There will be 3 or 4 problem sets that are designed to reinforce topics discussed in class. Several of these problem sets will require the use of PC/SAS. I have chosen to use SAS because it more easily is able to estimate non-linear models than STATA. Previous knowledge of these programming languages is not required. Example program(s) will be made available to students that show the usage of the specific SAS commands necessary to complete the assignment.

Term Paper

To help achieve the second objective of the course, all students will write a term paper on a demand or production topic chosen by a student, with approval from myself, in lieu of a final exam. A one to two-page proposal will be due by **Thursday March, 1 2007**. The final paper would be expected to be 15-20 typed, double spaced (12-point font) pages and have the potential of being submitted for consideration as a selected paper at an appropriate professional meeting. Your final paper will be due the last day of class, **Tuesday, May 1, 2007**.

Office Hours

My office hours for this semester will be Monday, Wednesday, and Friday from 10:00 to 12:00, or by appointment. If you cannot reach me, you can make an appointment through my secretary, Lisa Blankenship in 306B Hutcheson Hall. Her phone number is 231-6921.

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Course Outline, Spring 2007

- I. Review of Consumer Theory
 - A. Axioms of consumer preference
 - B. Cost and expenditure functions
 - C. Properties of demand functions

- II. Review of Theory of the Firm
 - A. Descriptions and measures of technology
 - B. Profit maximization
 - C. Duality: cost and profit functions

- III. Functional Forms
 - A. Simple functional forms
 - B. Flexible functional forms
 - C. Trans-log
 - D. Almost Ideal Demand System
 - E. Rotterdam model
 - F. Evaluating alternative functional forms

- IV. Restrictions on Preferences and Technology
 - A. Separability
 - B. Homotheticity

- V. Aggregation
 - A. Aggregation over goods/inputs
 - B. Aggregation over households/firms

- VI. Distance-Metric Demand Model

- VII. Curvature Conditions and Semi-flexible Forms

- VIII. Index Numbers and Cost-of-Living Measurements

- IX. Technical Change

- X. Dynamic Demand Models

- XI. Nutrition and Health

- XII. Corner Solutions

- XIII. Nonparametric Analysis and Structural Change