

**COURSE SYLLABUS
FOR
AGRICULTURAL ECONOMICS 621
QUANTITATIVE TECHNIQUES FOR DECISION-MAKING
IN AGRICULTURE (I)
TEXAS A&M UNIVERSITY
FALL 2003**

Instructor: David A. Bessler
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Office Hours: Tuesday and Thursday 9:30-10:30 and by appointment

Backup Contact: Ms Michele Zinn Room 306D Blocker (if you need to drop off homework or other information and I'm not available).

Course Description:

Econometric application and practice, analysis and interpretation of real-world economic data, microcomputer implementation.

The goal of this graduate-level course is to develop competent practical analysts and interpreters of economic and business data. Although students will not be expected to understand all the theoretical foundations of statistical tools or how algorithms actually work, they should be able to recognize and correct for problems inherent in economic and business data they examine. They should also be able to use relevant quantitative tools for problems they will face in subsequent employment.

Prerequisites:

STAT 303 (Statistical Methods)
MATH 142 (Calculus)
ECON 323 (Intermediate Microeconomic Theory)
ECON 311 or AGECE 430 (Intermediate Macroeconomic Theory)

Text:

Whistler, D., K. White, S.D. Wong and D. Bates, *SHAZAM: The Econometric Computer Program*, version 9, Vancouver, Canada: Northwest Econometrics, 2001.

Optional: Griffiths, W.E., R.C. Hill, and G.G. Judge (GHJ) *Learning and Practicing Econometrics*. New York: John Wiley and Sons, 1993.

Meeting Time and Place

MWF 12:40 pm - 1:30 pm; Room 457 Blocker

Evaluation of Student Performance:

Class Assignments 20%
Midterm Exam 40%
Final Exam 40%

Topics, Reading Assignments, Approximate Time (weeks) and Homeworks:

Matrix algebra 1 week (Homework 1)
Simple Regression 2 weeks (Homework 2)
General Linear Statistical Model - GLM 1 week (Homework 3)
Dummy Variables 1 week (Homework 4)

MIDTERM EXAM (October 17, 2003)

Heteroskedastic errors 1 week (Homework 5)
Autocorrelated errors 1 week (Homework 6)
Directed Acyclic Graphs 2 weeks (Homework 7)
Time series Models -- Error Correction 3 weeks (Homework 8)

FINAL EXAM December 15, Monday, 10:30am -12:30 pm, Room 457 Blocker

Homework Assignments:

Assignments will focus on application of econometric methods to real world problems. Students will develop proficiency in the use of readily available computer software and will gain experience in technical report writing.

Instruction will be given in SHAZAM, RATS, and TETRAD II. You may use other software (SAS, TSP) if you please. Both RATS and SHAZAM are on the AGECE departmental machines (SHAZAM is also in the basement of BLOCKER).

Lectures:

Lectures are available on the WWW . Go to: <http://ageco.tamu.edu/>
This is the **Homepage of Agricultural Economics**. Click on my name (Bessler). Click on my homepage and then agec621. You must enter your name plus the password (SEPSET). All lectures are at this site.