

# Economics 6243

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**Hours** Monday and Wednesday, 10:30-noon. Consult my web page (<http://ladkins.bus.okstate.edu/>) for latest information

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## 1 Purpose

The purpose of our two course Econometric sequence is to make you functionally literate applied economists. Therefore, great stress will be placed on your ability to understand when to adopt a particular model or technique, how to implement it, and how to interpret your results. This means that you will be spending a significant portion of your time this semester in front of the computer terminal.

In order to become functionally literate, it is also necessary for you to learn some of the basics of econometric theory. The basic tools of econometric theory will help to slow the rate of depreciation of your hard-earned econometric human capital. It is well worth your time to learn these tools now, especially if you intend to do any empirical work in the future.

### 1.1 Recommendation

I strongly recommend that in addition to Econ 6243 you take Advanced Econometrics (AGEC 6213) from Wade Brorsen in the Agricultural Economics Department. The two Econometrics II courses have been designed to minimize overlapping topics and are highly complementary.

## 1.2 Prelims

Those of you preparing for Econometrics Preliminary Examinations will be expected to take *both* Econometrics II courses and to master the theoretical material contained in Schmidt (1976), Fomby, Hill and Johnson (1984), and Greene (1997). Also, those who plan to attempt prelim exams in Econometrics should take STAT 4113 and STAT 4223.

## 2 Textbooks

### Required

Johnston, Jack and John DiNardo *Econometric Methods*, McGraw-Hill, 1997.

### Recommended

*SAS/ETS Software: Applications Guide 2.*

*SAS/IML User's Guide*, Version 6.

### Also Recommended

Judge, Hill, Griffiths, Lutkepohl, and Lee, *Introduction to the Theory and Practice of Econometrics*, 2nd edition, John Wiley and Sons, 1988.

Kennedy, Peter, *A Guide to Econometrics* 4th edition, MIT Press.

Griffiths, Hill, and Judge, *Learning and Practicing Econometrics*, John Wiley & Sons, 1994.

Hill, R.C., *Learning SAS: A Computer Handbook for Econometrics*, John Wiley & Sons, 1988.

*SAS/ETS User's Guide*, Version 6, Second Edition

### Other Sources

Fomby, Hill, and Johnson, *Advanced Econometric Methods*, Springer Verlag, 1984. Second Printing, 1988.

Jan Kmenta, *The Elements of Econometrics*.

Judge et al., *The Theory and Practice of Econometrics*, 2nd Edition, Wiley, 1985.

Schmidt, Peter, *Econometrics*, Marcel Dekker, 1976.

### 3 Prerequisites

This course requires you to work with probability, statistics, calculus, matrix algebra, and to write computer programs (as well as learn econometrics). I recommend Math Econ I and Econometrics I (either in Economics or Ag Econ) as prerequisites. I also assume that you are familiar with using a microcomputer under the Windows 95 operating environment. In order to take full advantage of the materials available to us, some familiarity with using Netscape Navigator or other web browser to obtain information via the Internet is also useful. If you have any doubts about whether your experience is sufficient, please talk to me about it.

### 4 Course Outline

- Introduction and Review
- Simultaneous Equations Models
- Using Panel Data
- Hypothesis testing
- Optimization
- Nonlinear Models
- Discrete Dependent Variable Models
- Limited Dependent Variable Models

### 5 Computer Assignments

Early in the course you will begin to use the computer to do portions of your homework. You will be responsible for learning to use the SAS system. SAS can be used on either the mainframe computer or on a personal computer (PC). To use the latest version of SAS, you will need to use the PC version.

GAUSS is a mathematical programming language that is similar to SAS IML. In fact GAUSS is superior to IML in most respects. GAUSS is available in some PC labs on campus. SHAZAM and E-Views are other software packages that contain preprogrammed regression routines. They may also be available in some labs. Although I will not require you to learn all of these software packages, I want you to feel free to experiment with them. Each is very powerful in its respective specialty.

## 6 Grades

Your grade in this class will be based on your performance on 2 exams and on homework assignments.

### Grade Weights

Exam 1	40%
Exam 2	40%
Homework	20%

Grades will be assigned based on your mastery of the items listed on the accompanying page.

### Grades

90%–100%	A
76%–90%	B
60%–75%	C
50%–60%	D
< 50%	F

All exams must be taken at the designated time. No make up exams will be given. If you miss an exam you will receive a grade of zero.

Unless you are specifically told otherwise by me, all homework must be turned in at the beginning of the class period on the date that it is due. Homework will not be accepted if late.

## **7 Attendance**

Regular attendance is expected. You are responsible for any material you miss because of absence. In general, I do not permit students to copy my notes. If you miss class and need a copy of the notes, please obtain them from one of your classmates.

## **8 Cheating Policy**

Cheating will not be tolerated. Any violation of the University's academic dishonesty policy will be prosecuted according to University regulations. You will receive a grade of 0 on any test or assignment you are caught cheating on. In addition, you are responsible for the security of your work (in other words, if someone copies your work, you will also receive a zero on the test or assignment).