

University of Maine
School of Economics
Introduction to Economic Statistics and Econometrics
ECO 485 (Fall, 2011)

Time/Location Tuesday and Thursday; 9:30-10:45 AM, 201 Winslow Hall

Instructor

Hsiang-tai Cheng, 200 Winslow Hall. 581-3155

Email: Hsiang-tai Cheng (First Class)

Office hours: Wednesday and Friday: 9:00pm-11:00AM, by appointment

First Class Course Conference: ECO485(Cheng)

Course Description

This course introduces economic concepts and relationships expressed in quantitative terms, and the focus is on the specification, estimation, evaluation, and interpretation of econometric models. The course meets the undergraduate capstone experience requirements.

Course Objectives

The course aims to help students acquire and develop quantitative, statistical, and analytical skills for economic analysis.

Learning Outcomes

Students successfully completing this course:

- Can apply a working knowledge of basic econometric tools to modeling, estimation, and inference in the context of economic problems.
- Can evaluate critically the results and conclusions of econometric analysis.
- Have a foundation and understanding for further study of econometrics.

Pre-requisites

MAT 215 or MAT 232, and C- or better in either ECO 350 or ECO 321 or ECO 420.

Text

Required: Hill, R. Carter, William E. Griffiths, and Guay C. Lim (2008). *Principles of Econometrics, Third Edition*, New York: John Wiley and Sons, Inc..

Optional: William E. Griffiths, R. Carter Hill, and Mark A. Lim (2011). *Using EViews for Principles of Econometrics*, 4th Edition, , New York: John Wiley and Sons, Inc..

Course Requirements and Grading

The requirements for the course and grade weights are:

-Homework assignments	40%
-Midterm Exam I (in class)	20%
-Midterm Exam II (in class)	20%
-Final Exam (in class)	20%

The letter grade scale will be as follows

A	94-100
A-	90-93
B+	87-89
B	84-86
B-	80-83
C+	77-79
C	74-76
C-	70-73
D+	67-69
D	60-66
F	0 -59

- **Homework Assignments**

Assignments will be handed out on the completion of each chapter, and due date will be specified. Data sets for exercises are available at the textbook's web site (<http://principlesofeconometrics.com/>).

Late problem sets will not be graded (i.e., will receive a grade of zero) except in the case of either prior arrangement (not on the due date), or extreme emergency. Absence from class on the day the homework was assigned is not an excuse for late or missed work.

You are permitted to consult with one another on homework. However, you must write your own answers in a legible and well-organized manner. All graphics must be carefully constructed and labeled. Relevant computer printouts must accompany your answers. No credit will be received for copied answers, answers that are not specifically documented by relevant computer printouts.

Academic Integrity

Although you are permitted to consult with one another on homework, I expect you to do your work and write your own answers. Any breach of academic integrity (e.g. cheating on exams or plagiarism) will result in a failure for the *entire class*.

Accommodations for Students with Disabilities

If you need course adaptations or accommodations because of a disability, please contact Ann Smith, Coordinator of Services for Students with Disabilities (Onward Building, 581-2319), as early as possible in the term.

In the event of disruption of normal classroom activities due to an H1N1 swine flu outbreak, the format for this course may be modified to enable completion of the course. In that event, you will be provided an addendum to this syllabus that will supersede this version.

Tentative Course Outline

Subject to change. Some modifications to the course content might be needed during the semester and will be announced in a timely manner.

Topic	Textbook Chapters
Fundamentals of Econometrics	
1. Introduction to course, Introduction to econometrics	Chapter 1
2. Reviews	Appendix A Probability primer, Appendix B Appendix C
a. Mathematical tools	
b. Probability concepts	
c. Statistical inference	
3. <i>The Simple linear regression model</i>	Chapter 2
4. <i>Interval estimation and hypothesis testing</i>	Chapter 3
5. <i>Prediction, goodness-of-fit, and modeling issues</i>	Chapter 4
Midterm Exam I	
Multivariate Regression Analysis	
6. The multiple regression model	Chapter 5
7. Inference in the multiple regression model	Chapter 6
8. Regression with qualitative variables	Chapter 7
Midterm Exam II	
Violations of Basic Assumptions	
9. Heteroskedasticity	Chapter 8
10. Serial correlation	Chapter 9
11. Simultaneous equations	Chapter 11
Special Topics (Time permitting)	
12. Time_series nonstationary data	Chapter 12
13. Panel data	Chapter 15
Final Exam	