

Eastern Connecticut State University
Department of Economics
MWF 1:00pm

ECO 305: Introduction to Econometrics
Spring 2007, Professor Brown
Webb, Room 210

Course Outline and Syllabus

Dr. Jennifer Brown

Office: Eastern Hall Room #31
Phone: 465-0661
Email: brownje@easternct.edu

Office Hours: Monday and Friday

2:00pm – 4:00pm

AND: Wednesday

2:00pm – 3:00pm

If you are unable to attend any of the above office hours, you may email me to make an appointment.

Texts:

Introduction to Econometrics, Second Edition, James H. Stock and Mark W. Watson

Exams

1 st Midterm Exam	March 2, 2007 (<i>In Class</i>)
2 nd Midterm Exam	April 11, 2007 (<i>In Class</i>)
Final Exam	May 16, 2007 (<i>12:30pm – 2:30pm</i>)

There are no make-up exams. If you have any conflicts with exam times given above, you must see me about it before 5:00 pm on Wednesday, February 14, 2007.

Grading:

The final course grade will be computed as follows:

Assignments and Class Participation	10%
Project	15%
1 st Midterm Exam	25%
2 nd Midterm Exam	25%
Final Exam	25%

The grading scale for the course grade is as follows*:

A	≥ 95	C	73-75
A-	90-94	C-	70-72
B+	86-89	D+	66-69
B	83-85	D	63-65
B-	80-82	D-	60-62
C+	76-79	F	≤ 59

**I reserve the right to modify this scale downward (i.e., to lower the score required for a given grade).*

Assignments

Assignments for each week will be announced in class and posted on Vista. Homework is always due by 1:00pm on the Monday after the homework is assigned. You are welcome to turn the homework in at the beginning of class on that day, or to my office.

Late homework will not be accepted. All assignments must be **typed or clearly written**. There will be no make-up assignments, but the lowest assignment score will be dropped.

Attendance and Preparation for Class

You are expected to attend class regularly and in a timely fashion. Readings for each class meeting are listed on the course outline. You are expected to do the readings. Attendance and participation in class are part of your grade.

Academic Integrity

Academic dishonesty (plagiarism, cheating, etc.) will be taken very seriously.

Academic Support Services: If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact the Office of AccessAbility Services at 465-5573. To avoid any delay in the receipt of accommodations, you should contact the Office of AccessAbility as soon as possible. Please understand that I cannot provide accommodations based upon disability until I have received an accommodation letter from the Office of AccessAbility Services. Your cooperation is appreciated.

Course Outline

Primary topics and readings are listed below. Additional readings from other sources may also be distributed occasionally.

Date(s)	Reading	Topic
January 22	Chapter 1 and Selected Reading*	Economic Questions and Data
January 24	Chapter 2	Review of Probability
January 26	Chapter 3	Review of Statistics
January 29	Chapter 4.1 – 4.2	The Linear Regression Model, Estimating the Coefficients of the Linear Regression Model
January 31	Chapter 4.3 – 4.4	Measures of Fit, The Least Squares Assumptions
February 2		In Class Discussion – Practical Application
February 5	Chapter 4.5 – 4.6	The Sampling Distribution of the OLS Estimators
February 7	Chapter 5.1 – 5.2	Testing Hypotheses About One of the Regression Coefficients, Confidence Intervals for a Regression Coefficient
February 9		In Class Discussion – Practical Application
February 12	Chapter 5.3 – 5.4	Regression when X is a Binary Variable, Heteroskedasticity and Homoskedasticity
February 14		In Class Discussion – Practical Application
February 16		Holiday - No Classes
February 19		Holiday - No Classes
February 21	Chapter 5.5 – 5.6	The Theoretical Foundation of OLS
February 23		Group Work – In Library
February 26	Chapter 5.6 – 5.7	Using the t-statistic in Regression When the Sample Size is Small
February 28		Midterm Review
March 2		1st Midterm
March 4	Chapter 6.1 – 6.2	Omitted Variable Bias, The Multiple Regression Model
March 6	Chapter 6.3 – 6.4	The OLS Estimator in Multiple Regression, Measures of Fit in Multiple Regression
March 8	Chapter 6.6 – 6.8	The Distribution of the OLS Estimators in Multiple Regression, Multicollinearity
March 11	Chapter 7.1 – 7.2	Hypothesis Tests and Confidence Intervals for a Single Coefficient, Tests of Joint Hypotheses

March 13	Chapter 7.3 – 7.4	Testing Single Restrictions Involving Multiple Coefficients, Confidence Sets for Multiple Coefficients
March 15	Chapter 7.5 – 7.7	Model Specification for Multiple Regression, Analysis of the Test Score Data Set
March 18	Chapter 8.1 – 8.2	A General Strategy for Modeling Nonlinear Regression Functions, Nonlinear Functions of a Single Independent Variable
March 20		Spring Recess – No Classes
March 21		Spring Recess – No Classes

March 24		Spring Recess – No Classes
March 26	Chapter 8.3 – 8.5	Interactions Between Independent Variables, Nonlinear Effects on Test Scores of the Student-Teacher Ratio
March 28		In Class Discussion – Practical Application
March 31	Chapter 10.1 – 10.2	Panel Data, Panel Data with Two Time Periods: “Before and After” Comparisons
April 2	Chapter 10.3 – 10.4	Fixed Effects Regression, Regression with Time Fixed Effects
April 4	Chapter 10.5 – 10.7	The Fixed Effects Regression Assumptions and Standard Errors for Fixed Effects Regression, Drunk Driving Laws and Traffic Deaths
April 7		Holiday – No Classes
April 9		Midterm Review, Homework 9 Due
April 11		2nd Midterm
April 14	Chapter 11.1 – 11.2	Binary Dependent Variables and the Linear Probability Model, Probit and Logit Regression
April 16	Chapter 11.3 – 11.5	Estimation and Inference in the Logit and Probit Models, Application to the Boston HMDA Data
April 18		In Class Discussion – Practical Application
April 21	Chapter 12.1 – 12.2	The IV Estimator with a Single Regressor and a Single Instrument, The General IV Regression Model
April 23	Chapter 12.3 – 12.6	Checking Instrument Validity, Application to the Demand for Cigarettes, Where Do Valid Instruments Come From
April 25		In Class Discussion – Practical Application
April 28	Chapter 14.1 – 14.3	Using Regression Models for Forecasting, Introduction to Time Series Data and Serial Correlation, Autoregressions

April 30	Chapter 14.4 – 14.5	Time Series Regression with Additional Predictors and the Autoregressive Distributed Lag Model, Lag Length Selection Using Information Criteria
May 2	Chapter 14.6 – 14.8	Nonstationarity I: Trends, Nonstationarity II: Breaks
May 5	Chapter 15.1 – 15.4	An Initial Taste of the Orange Juice Data, Dynamic Causal Effects, Estimation of the Dynamic Effects with Exogenous Regressors, HAC Standard Errors
May 7	Chapter 15.5 – 15.8	Estimation of Dynamic Causal Effects with Strictly Exogenous Regressors, Orange Juice Prices and Cold Weather, Is Exogeneity Plausible? Some Examples
May 9		Final Review
May 16	12:30pm – 2:30pm	Final Exam

* TBA