

RUTGERS UNIVERSITY

Syllabus for ECONOMETRICS
220:322:01 SPRING 2014

Class hours: Tuesdays and Fridays 11:30 A.M. – 12:50 P.M.
Class room: Murray Hall Building (MU) 212 (College Avenue Campus)

Instructor: Surabhi Kadambe, PhD
Office hours: Tuesdays and Fridays 1:00 PM – 2:00 PM or by appointment
Office: New Jersey Hall 106B

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Course Objectives (Learning Outcomes)

Econometrics uses statistical and mathematical methods for estimating and testing economic relationships / theories. The main objective of this course is to provide you, the student, with the understanding of the skills necessary for a practical economist. The methods taught in this introductory course can also be employed in the business related disciplines of accounting, finance, marketing and management and in many social science disciplines, such as political science.

As stated in the list of **ECONOMICS DEPARTMENT'S STANDARD LEARNING OUTCOMES**, students who successfully complete Econ 322 should be able to use a statistical/econometric computer package to estimate an econometric model and be able to report the results of their work in a non-technical and literate manner. In particular, a student who successfully completes Econ 322 will be able to estimate and interpret linear regression models and be able to distinguish between economic and statistical importance of the results. Students should be able to critique reported regression results in applied academic papers and interpret the results for someone who is not trained as an economist.

Prerequisites

Introduction to Microeconomics (220:102)
Introduction to Macroeconomics (220:103)
Calculus I (640:135) or equivalent
Introduction to Statistics (960:211 or 960:285)

Textbook

James H. Stock & Mark W. Watson, Introduction to Econometrics, 3rd edition, Addison-Wesley 2011, ISBN-13: 978-0-13-800900-7 or ISBN-10: 0-13-800900-7
This textbook should be available in the Rutgers' bookstore. There is a website associated with the textbook. There you will find solutions to selected exercises at the end of each Chapter of the book. The address is http://wps.aw.com/aw_stock_ie_3/178/45691/11696965.cw/index.html

We will use the software package, STATA in this course. STATA can be accessed on the computers in the Rutgers Computer Labs, common areas, such as library, and remotely through Rutgers Apps. No prior knowledge of this software package is required to succeed in this course. A STATA tutorial file can be found on the companion website of the textbook (http://wps.aw.com/aw_stock_ie_3/178/45691/11696965.cw/index.html).

If you wish to own, STATA can be purchased directly from the following website:
<http://www.stata.com/order/new/edu/gradplans/gp-direct.html>

Method of Evaluation

Final grade for this course is based on your performance in homework assignments, quizzes, a midterm exam, and a final exam. The breakdown is:

Home work	(due 1/31, 2/14, 3/28, 4/11, and 4/25)	30%
Class Participation		10%
Midterm exam:	March 4	30%
Final Exam:	Thursday May 8, 12 PM – 3 PM	30%

I have included the tentative course outline at the end of this document. Exact chapters and topics to be examined on will be announced at least a week prior to the exam. Homework questions include theoretical problems and empirical questions (data related work using STATA). Class participation is assessed on the basis of questions answered in class. The questions are based on the topics covered in the class and their connection to models and to real world situations. We will go over some such cases during the class. Both midterm exam final exam have multiple choice questions, and open ended questions. The final exam is comprehensive (that is cumulative). Attending classes regularly and actively participating in the class are strongly encouraged and would help your performance in the exams.

Students majoring in Economics must earn C or better grade in this course.

NOTE1: There are no extra credits in this course.

Make-up Exam policy

You should make efforts to take the exam and quizzes on the scheduled day and time. If you must miss it, inform me as soon as possible.

1. There is a penalty (of up to 50% loss) if you do not make up the missed exam / quizz within a week of the scheduled day,
2. The penalty is 100% loss if you miss the scheduled make up exam.

Policy regarding Cheating

I will not tolerate cheating. All cheating incidents will be reported to the Director of Undergraduate Studies of Economics Department.

NOTE 2: Announcements related to class cancellation (if any) will be e-mailed to you and will be posted on the website of Economics Department.

GENERAL INFORMATION

Academic Honesty and Code of Conduct

You are expected to adhere to all of Rutgers University's policies and Regulations, in addition to normal standards of acceptable behavior. You must be familiar with and must adhere to the University's Academic Integrity Policy

stated in the website, <http://teachx.rutgers.edu/integrity/policy.html#Integrity>. Any violation of that policy will be reported as required by the University procedures.

Attendance

You are expected to attend all classes. If you miss one or two classes because of illness or a family emergency, please use the University online absence reporting system (<http://sims.rutgers.edu/ssra>) to report the date and reason for your absence. I will be notified by the system via an e-mail. If there is any serious problem, please discuss with me early on to avoid the consequent loss of grades.

Contacting me

Other than during office hours, before or after classes, you may make an appointment to see me in my office or contact me through e-mails.

Use of the textbook: I'll use the textbook as the primary source for structuring class notes. However, I would use other reference books for enhancing and clarifying the topics.

Sakai: Look for important announcements related to exams, and topics for the exam, on the web and look forward to learning important concepts and techniques of econometric analysis in this course.

Tentative course calendar

<u>Dates</u>	<u>Topics / exams</u>	<u>Chapter numbers</u>
Jan. 21– 31	Introduction and Review	Chapters 1-3
Feb. 4 & 7	Linear Regression with a single regressor	Chapter 4
Feb. 11 – 21	Linear Regression with a single regressor: And Hyp testing and confidence intervals; Regression with multiple regressors	Chapters 5-6
Feb. 25, 28 Mar. 7 & 11	MIDTERM EXAM TUESDAY March 4 Hypothesis testing and confidence intervals in Multiple Regression; Nonlinear regression functions	Chapters 7-8
Mar. 14, 25 & 28 Apr. 1 - 15	Assessing studies Regression with Panel data Experiments, Forecasting and Time-series Regression	Chapters 9-10 Chapters 13-14
Apr. 18 – 29 May 2	Regression with a binary dependent Variable; Instrumental variables regression (if time permits); and REVIEW THURSDAY 05/08 (12 PM – 3 PM) FINAL EXAM	Chapters 11-12