

SYLLABUS FOR ECONOMETRICS (01:220:322:H1)

Summer 2017

Instructor: Mingmian Cheng	Time: MTWTH 10:30 AM – 12:20 PM
Email: mc1421@economics.rutgers.edu	Place: Scott Hall 101 (CAC)

Final Exam (CUMULATIVE): 10:30 AM – 1:00 PM, August 16 (Wednesday)

Course Pages: <http://sakai.rutgers.edu>

Office Hours: Monday Wednesday 2:00 – 3:00 PM (Office 404, NJ Hall).

Course Objective and Learning Goals:

Econometrics is a set of research tools used to estimate and test economic relationships. The methods taught in this introductory course can also be employed in the business disciplines of accounting, finance, marketing and management and in many social science disciplines. The aim of this course is to provide you with the skills helpful in filling the gap between being a student of economics and being a practicing economist. By taking this introduction to econometrics you will gain an overview of what econometrics is about, and develop some intuition about how things work. The emphasis of this course will be on understanding the tools of econometrics and applying them in practice.

Students who successfully complete Econ 322 should be comfortable with basic statistics and probability. They 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. They 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: It is expected that all students will have taken principles of economics courses covering both microeconomics and macroeconomics (e.g. 220:102 and 220:103 or 220:200), Calculus I (640:135 or 640:151) and an introductory statistics class (e.g. 960:211 or 960:285). It will be assumed that all students have a good command of the material taught in these courses. It is strongly suggested that you review this material at the beginning of this course.

Important Information: Students majoring in Economics need to pass this course with a C or higher.

Textbook: James H. Stock and Mark W. Watson, *Introduction to Econometrics 3rd Edition, Updated*, Pearson.

Software: The software that will be used in this course is EVIEWS or R (or Matlab if you've already had). The software is available in all university computer labs. Students can also purchase a full student version of Eviews from the following website: <http://www.ihsmarketplace.com/collections/student-version>. R is free (which is why highly recommended). There is also a free student "Lite" version of Eviews available

at the website as well.

Course Outline:

- █ Introduction (Chapter 1)
- █ Review of Statistical Concepts (Chapters 2 and 3)
- █ The Simple Linear Regression Model (Chapters 4, 5 and 17)
- █ Midterm 1
- █ The General Linear Regression Model (Chapters 6, 7 and 18)
- █ Non-linear Effects in Regression models (Chapter 8)
- █ Assessing Regression Models (Chapter 9)
- █ Midterm 2
- █ Additional Topics in Regression Analysis (Chapters 10, 11 and 12)
- █ Topics in Time Series Econometrics (Chapters 14, 15 and 16)^a
- █ Final Exam

^aMay not be covered

NOTE: I reserve the right to add or subtract topics as the course develops. Not all topics will be covered in the same detail. Time constraints may cause some topics to be omitted. Unless otherwise notified, students are responsible for all the topics noted in the lecture outline.

Course Assessment: Final grades will be based on your performance in all forms of assessment according to the following distribution: Assignments (10%), Empirical projects (10%), Midterm 1 (17.5%), Midterm 2 (17.5%), Final (45%).

Computer assignment sets will consist of applied econometric work using a computer program. I encourage students to work together on the empirical assignments. However, all students must write up their answers independently of each other. Students caught submitting identical, or nearly identical, assignments will receive a zero grade for that assignment. Late assignments will receive a score of zero. There will be plenty of time allocated for the assignments so that there is no excuse for a late assignment.

Midterm exams are NOT CUMULATIVE. Final Exam is CUMULATIVE. If you do not attend an exam, you will receive a zero grade for that exam. Students who cannot attend an exam can, under certain circumstances, make alternative arrangements if they provide me with documentary evidence regarding the reason they missed the exam. I do not give extra-credit assignments.

Grading Policy:

- A ∈ [85 , 100]
- B+ ∈ [75 , 85)
- B ∈ [68 , 75)
- C+ ∈ [60 , 68)
- C ∈ [55 , 60)
- D ∈ [50 , 55)
- F ∈ [0 , 50)

Academic Integrity Policy: I will regard academic integrity as one of basic virtues that educated students should have. I strongly recommend to take a look at academic integrity policy before exams. (<http://academicintegrity.rutgers.edu/academic-integrity-policy/>)

 Any student caught cheating will receive an F for this course and will be reported to the appropriate university authority. There will be no warnings. The following are some of the actions which I regard as academic misconduct: (1) Taking unauthorized materials into an examination. (2) Submitting work for

assessment knowing it to be the work of another person. (3) Improperly obtaining prior knowledge of an examination paper and using that knowledge in the examination. (4) Failing to acknowledge the source of material in an assignment.

Self-Reporting Absence Application: Students are expected to attend all classes; If you expect to miss one or two classes because of illness or emergency cases, please use the University absence reporting website (<https://sims.rutgers.edu/ssra/>) to indicate the date and reason for your absence. An email will be automatically sent to me.

Important Notes:

- There is NO make-up exam in principle unless you can prove your urgent case with an official form.
- It is expected that all students will attend lectures, be up to date with their readings and be prepared to participate fully in class. Please ask questions in class or in office hours if you have any problems or misunderstandings. Do not wait until just before an exam to ask questions.
- This course is both important and more or less difficult. The best way to learn is by doing. I recommend attempting as many exercises at the end of each chapter of the text as you can.