220:303 Introduction to Econometrics   Prof. Peter D. Loeb
COURSE OUTLINE, Spring 2022
Office: Hill Hall, 813
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This course will develop the basic concepts and tools of introductory econometrics at the undergraduate level. The classical linear regression model will be developed and violations of the classical assumptions will be addressed. Students should be able to read articles using basic econometrics and regression analysis after completing the course

The course will consist of two exams as well as computer exercises. The first exam (the midterm) will count 40 percent, the homework will count 10 percent, and the last exam will count 50 percent of the grade. There will be no unauthorized make-up exams. Attendance is required. Homework handed in late will be penalized by one letter grade for each day tardy. Students must master a regression program of their choice. Such programs, needed for much of the homework, include (your choice): EVIEWS, Stata, Excel, R, Python, etc. Some of this software is available at no cost from Rutgers. More information regarding free access to EVIEWS will follow. Students may also use the Department's Computer Lab (Hill 806) where EVIEWS is available.   Assignments will be posted on Canvas. (The final exam has been scheduled for Tuesday, May 10, 2022 between 11:45 am and 2:45 pm. Any change will be noted in class. Let me emphasize, the date and time for the final exam are fixed by the university. (Any conflict with other exams must be addressed by the other instructor and the appropriate dean.)

Office Hours will be conducted via Webex. Every student should have a Rutgers version of Webex. You can check with the Office of Information Technology if you have problems acquiring this. You can connect to class office hours at: https://rutgers.webex.com/meet/ploeb   The times for office hours will be announced in class.

Prerequisite: 21:220:203, Statistics.

Cheating will not be tolerated and may result in disciplinary action. (See the Policy on Academic Integrity in the Student Handbook.)

Visit Canvas and your email often for announcements.

REQUIRED TEXT: Robert S. Pindyck and Daniel L. Rubinfeld (1998), Econometric Models and Economic Forecasts, Irwin McGraw-Hill, Inc., 4th ed. Used copies of this book are available online for about $30. (Students may wish to obtain a copy of the

student version of EViews, **but this is not required and is actually available for free, as noted later, as well as in the Department Computer Lab in Hill Hall, Room 806.)**

Recommended: A.H. Studenmund (2017), Using Econometrics, A Practical Guide, Pearson, 7th ed. Earlier editions are useful as well. Also: Damodar Gujarati and Dawn Porter (2010), Essentials of Econometrics, Irwin McGraw-Hill, Inc., 4th ed. ISBN: 978-0-07-337584-7.

Software: As mentioned above, students will need to make use of a software package to do regression analysis. There are many such programs and some students may be familiar with their use, e.g., Excel. Students can access a lot of software through the Rutgers virtual computer labs using at: https://it.rutgers.edu/virtual-computer-labs/

I will be using in class a software package called EVIEWS. It is very user friendly and powerful. As mentioned, a student version can be ordered online for free or students can make use of the software in the Economics Computer Lab located in Hill Hall, Room 806. Rutgers, as mentioned above, makes available many software packages through the virtual computer labs. To access this free Rutgers version of EVIEWS follow the directions below:

1. Go to the website: https://it.rutgers.edu/virtual-computer-labs/knowledgebase/accessing-virtual-computer-labs/
2. At the "Logging In" section, click on Navigate to   https//labgate.rutgers.edu
3. Click on "OK"
4. On the left-hand side of the screen, double click on "Programs"
5. Double click on "Class Software"
6. Double click on "Eviews9"
7. Double click on "Eviews9(x64)"
8. Click on "Ok"

TOPICS: (Chapters and pages refer to Pindyck and Rubinfeld)

I. Introduction and Review of Math and Statistics Prerequisites: Ch2, pp19-28, 33-43, 48-51
II. Introduction to the Regression Model: Introduction, Ch. 1
III. Properties of Estimators (pp. 28-33) and The Two-Variable Regression Model: Ch3
IV. The Multiple Regression Model: Ch4
a. t-tests: Ch 3&4
c. F-test: Ch 3&4
d. Correlation: Ch 3&4