

INTRODUCTION TO ECONOMETRICS

E470 (2106) TR 12-1:15 p.m. ES 2102 Fall 2007
Syllabus Version 1.0

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Professor

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Office Hours: M 3:30 -5 pm, TR 11-12 noon and by appointment

Prerequisites: E270 (Intro. to Statistics); M119 (Intro. to Calculus)

Course Description: This course introduces you to regression analysis, a basic tool of empirical analysis in economics and other business and social sciences.

Principles of Undergraduate Learning: This course addresses the *core communication and quantitative skills* principle, with special emphasis on the performance of quantitative analysis and use of information resources and technology. It also contributes to the *critical thinking* principle, especially in developing the ability to synthesize information to arrive at reasoned conclusions, to evaluate the logic, validity, and relevance of data, and to solve challenging problems.

Textbooks: *Introduction to Econometrics*, by Stock and Watson, 2nd edition [required]
Contains Data CD and student version of *EViews*

Textbook website: www.aw-bc.com/stock_watson

Grading: The grade for the course is determined by performance on **two quizzes** (50 pts. each), **three exams** (100 points each), **one empirical project** (100 points), **best four of five problem sets** (40 pts. each). There are 660 points total. Grading is on a straight scale, with pluses and minuses awarded for the top two and bottom two points within each grade, respectively. Intangibles such as class attendance and participation, or an upward trend in performance, can affect the grade of a student who is close to the margin. Whether you attend every class or not, you are responsible for knowing what has been said in class.

Attendance. Regular attendance is important in a quantitative class like this. Classes will include clarifying examples and worked out solutions, among other things. Most students who miss classes find themselves falling rapidly behind. The inherently cumulative nature of the course makes it difficult to recover if you fall behind.

Late assignments. Assignments should be turned in on the due date; it is a way of gauging progress and understanding. Any assignment turned in after the beginning of class on the due date is penalized 1/2 letter grade (A to A-, for example); assignments lose a full grade (A to B, for example) if turned in after class on the due date; and continue to lose another grade for each day they are late. But always turn in an assignment, even if it is late, because no assignment that is done with a good effort will receive a lower grade than C-, as long as it is turned in before December 6th. {If you are experiencing some unforeseen difficulty in completing the assignment on time, please let me know in advance. Unusual extenuating circumstances may justify an extension.}

Make-up examinations will be scheduled only upon presentation of written documentation concerning the excuse. If you know in advance of a conflict, please let me know and we can work something out.

Reading Assignments: All reading assignments should be accomplished before the class for which they are listed. Unless I direct you to read a particular appendix or part of an appendix, you are not responsible for appendices. This schedule is tentative. If we need to adjust, it will be announced in class.

<u>Date</u>	<u>Topic</u>	<u>Reading Assignment</u>	<u>Problem Set</u>
W <u>Aug.</u> 22	Introduction & Probability Review	Chs. 1&Notes	(ref. chs. 2)
M 27	Probability Review & Statistics Review	Notes	(ref. chs. 2,3)
W 29*	Hypothesis Testing& Confidence Intervals (CI) I	Notes	(ref. ch. 3)
M <u>Sep.</u> 3	LABOR DAY—NO CLASS MEETING		
W 5	Simple Linear Regression Model (OLS)	Ch. 4	
M 10	Simple Linear Regression Model (OLS)	Ch. 4	
W 12	Hypothesis testing and CI II	Ch. 4	1
M 17	Quiz No. 1 (half-period, chs.1,6,7)	(Go over quiz, EViews)	
W 19*	Properties of OLS	Ch. 5	
M 24	Properties of OLS	Ch. 5	
W 26	EXAMINATION NO.1 (chs. 1, 4-5)		
M <u>Oct.</u> 1	Multiple Regression	Ch. 6	2
W 3	Hypothesis tests and CI III	Ch. 7 & Notes	
M 8	Hypothesis tests and CI III	Ch. 7 & Notes	
W 10*	Nonlinearities and Functional Form	Ch. 8	
M 15	Nonlinearities and Functional form	Ch. 8	
W 17	Quiz No. 2 (half-period, chs. 8-9)	(Review for quiz)	3
M 22	Internal and External Validity/Specification	Ch. 9	
W 24	Internal and External Validity/Specification	Ch. 9	
M 29	Binary Independent Variables	Ch. 10	
W 31*	Binary Independent Variables	Ch. 10	
M <u>Nov</u> 5	EXAMINATION NO. 2 (chs. 6-10)		
W 7	Time Series and Forecasting	Ch. 14	
M 12	Time Series and Forecasting	Ch. 14	
W 14	Heteroskedasticity	Sec. 5.4	4
M 19	Heteroskedasticity	Sec. 17.5	
W 21	THANKSGIVING HOLIDAY—No CLASS		
M 26	Binary Dependent variables	Ch. 11 (skip 11.3)	5
W 28	Binary Dependent variables	Ch. 11 (skip 11.3)	
M <u>Dec.</u> 3	Instrumental Variables	Ch. 12	Empirical projects due!
W 5	Instrumental Variables	Ch. 12	
M 10	Empirical Project presentations		

* Classes on the 29th of August and 19th of September will be held in CA 436, the SLA Social Science Computer Classroom. Later we will decide whether to hold the additional classes in the SSCC.

EXAMINATION Number 3 (chs. 11, 14, 12; secs 5.4, 17.5):

Monday, Dec. 18 1pm - 3 p.m. in regular classroom

Examination number 3 is not a cumulative examination *per se*, but the later material in the course does tend to build on the earlier material. In that sense, every examination is cumulative.

It is normal and expected that students will talk to each other about homework and the empirical project. You are also encouraged to seek help from me. Apart from such informal help, however, the statement on plagiarism given below is in effect. Examinations are, of course, to be solo efforts. Any cheating will result in an F for that examination. Exams are closed book, closed notes, but students are allowed to bring in two sheets (top side only) of 8.5 by 11 in. paper with formulas, written upon it; and with notes about procedures, diagnostics, when to use which technique, etc. For quizzes, students may bring in one sheet, top-side only of 8.5 by 11 in. paper with formulas and notes hand-written on it.

* **Statement on Plagiarism**

Plagiarism is the offering of the work of someone else as one's own. Honesty requires that any ideas or materials taken from another source for either written or oral use must be fully acknowledged. The language or ideas taken from another may range from isolated formulas, sentences or paragraphs to entire articles copied from books, periodicals, speeches or the writings of other students. The offering of materials assembled or collected by others in the form of projects or collections without acknowledgement is also considered plagiarism. Any student who fails to give credit for ideas or materials taken from another source is guilty of plagiarism.

Information on campus policies for dealing with academic misconduct can be found at <http://registrar.iupui.edu/misconduct.html>.

In this course, any student caught cheating or plagiarizing receives an F for that assignment.

Student Advocate Information

Do you have a problem you don't know how to solve?

Is there information you cannot find?

Do you have a question that needs an answer or a problem that is affecting your class attendance?

The Student Advocate Office is here to help! I will answer your questions, direct you to the appropriate departments and people, familiarize you with university policies and procedures, and give you guidance as you look at ways to solve problems and make choices.

The Student Advocate Office is located in UC002 and can be contacted by phone at 278-7594 or email at stuadvoc@iupui.edu. For more information, see the Student Advocate website at: <http://www.life.iupui.edu/advocate/>