INTRODUCTION TO ECONOMETRICS EC 469/569
CRN 65624 SEC 002
NH 237: MW 12:00-1:50pm
Spring Term 2013
Instructor: Tom Potiowsky
Cramer Hall 241-H (503) 522-4869
Office Hours: MW 9:00 – 10:00am and by appointment
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TEXT


COMPUTER SOFTWARE

EViews, in Economics Department Computer Lab and computer labs on campus.

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<th>DATE (Week)</th>
<th>TOPIC</th>
<th>TEXT CHAPTER</th>
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<td>April 1</td>
<td>Regression Analysis – Intro And Overview</td>
<td>Chap. 1 (2, 5, 7, 10)</td>
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<td>Stats Review</td>
<td>Chap. 17, pgs. 541-546</td>
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<td>April 8</td>
<td>Regression Analysis – Intro And Overview</td>
<td>Chap. 1 (12)</td>
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<td>Stats Review</td>
<td>Chap. 3 (4, 5, 6, 7)</td>
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<td>April 15</td>
<td>Ordinary Least Squares</td>
<td>Chap. 2 (4, 6, 10, 11)</td>
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<td>Quarter Page Project Proposal</td>
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<td>April 22</td>
<td>The Classical Model</td>
<td>Chap. 4 (2, 5, 11)</td>
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<td>Chap. 17, pgs. 548-561</td>
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<td>April 29</td>
<td>Hypothesis Testing</td>
<td>Chap. 5 (2, 6, 9, 14)</td>
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<td>Stats Review</td>
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<td>Midterm Exam Wednesday, May 1</td>
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<td>May 6</td>
<td>Specification: Got the Right Variables?</td>
<td>Chap. 6 (4, 5, 11, 15)</td>
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<td>May 13</td>
<td>Specification: Got the Right Equation Form?</td>
<td>Chap. 7 (2, 5, 16)</td>
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<td>May 20</td>
<td>Multicollinearity</td>
<td>Chap. 8 (4, 8, 13)</td>
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The term econometrics was first used in 1910 and considered as a field of study in 1936. So as a discipline, econometrics is rather young. One of the earliest definitions of econometrics in the words of Samuelson, Koopmans and Stone (1954),

... as the quantitative analysis of actual economic phenomena based on the concurrent development of theory and observation, related by appropriate methods of inference (p. 142).

As you might guess, there was no marketing company assisting with this definition to promote econometrics. A more palpable definition comes from Chow (1983) that succinctly defines econometrics ‘as the art and science of using statistical methods for the measurement of economic relations’. [References from Stanford University]

You have an economic theory that says federal budget deficits leads to higher interest rates. We look at the US economy from 2008 to 2012, deficits have ballooned and interest rates are at 50 year lows. Is the theory wrong or is the data wrong? Supposedly, when the Sociologist/Economist Max Weber was questioned by a student that his theory did not match the facts, Weber responded (paraphrase): “the theory is fine, it is the facts that are wrong.” Economists are especially concerned with backing up their theory with empirical evidence. The two are integrally related and difficult to confirm. Theory has a beautiful logical consistency that the real world either hides or contradicts. The difficult task for the econometricians is to explore when a theory is validated or not. Theory and empirical verification are in a symbiotic relationship where one cannot exist without the other. You didn’t think this was going to be easy?

We explore economic relations suggested to us by economic theory. This introductory course explores the statistical underpinnings of econometrics with the goal to create a tool for empirical investigation. I cannot overemphasize doing the suggested problems for each chapter. The practice of “doing” will turn you into an econometrician rather than reading about it.

**Teaching Methods:**

Lecture style and discussion with the class, including short in-class case studies. We will review assigned problems in class and though I may regret it, we will have EViews up and running for real time addressing of questions.

**Written Assignments:**

One project: You will undertake an empirical study using regression analysis. Guidelines will
be provided.

Homework: Turning in end-of-chapter problems listed in the course outline will be used to determine 10% of your grade. They should be turned in on the Wednesday of the week assigned.

Exams:

Two exams: mid-term I and final. Mid-term I will be a short in-class exam covering Chapters 1 thru 5 and parts of Chap. 17. Depending on class coverage, only part of Chap. 5 may be on the exam. I will let you know as we finish class on April 29. The exam will take place during the second hour of the class on May 1.

Final will be a short in-class exam covering materials after the mid-term I. Each exam will consist of two parts: 1) Problem solving; 2) Short essay.

Grading:

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<th>Component</th>
<th>Percentage</th>
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<tr>
<td>Midterm I</td>
<td>30%</td>
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<tr>
<td>Final</td>
<td>30%</td>
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<tr>
<td>Write-up</td>
<td>30%</td>
</tr>
<tr>
<td>Home work</td>
<td>10%</td>
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Grading scale is initially set at 90% and above is "A", 80% to 89% is "B", and below 80% is "C" (graduate credit does not count for grades below "B-`). Qualifiers on grades, "+" and "-", will be set near the grade change points set above. (For example, an A- could be over the percentage range 95% to 89%, and a B+ could cover the range 90% to 84%).

REGRADING PROCEDURE and NO EXTRA CREDIT:

If you believe there has been an error in the grading of an exam, please give me a written request to review the grading. Your request should include why you believe your answer is correct and state specific citations from the text or other material to support your answer.

The assigned work in this class is the only evaluation available for determining grades. There will be no extra credit.

WITHDRAWALS:

Withdrawals from this class will adhere to university policy. Please make yourself aware of the various options and dates in the academic calendar. The last day to withdraw from this class is May 19, 2013.
ACADEMIC HONESTY:
The Student Conduct Code, which applies to all students, prohibits all forms of academic cheating, fraud, and dishonesty. These acts include, but are not limited to, plagiarism, buying and selling of course assignments and research papers, performing academic assignment (including text and examinations) for other persons, unauthorized disclosure and receipt of academic information, and other practices commonly understood to academically dishonor. The code of conduct also describes standards of behavior for all student members of the campus community. Violation of the SCC may lead to disciplinary action. Students may obtain copies of the Student Conduct Code by contacting the campus judicial officer at 503-725-4422, or buy visiting his office in room 433 Smith Memorial Student Union.

OTHER CLASSROOM INFORMATION:
1. In consideration of your fellow classmates, please turn off cell phones before coming to class.
2. If you are a student with a documented disability and registered with the Disability Resource Center, please contact me immediately to facilitate arranging academic accommodations.
Empirical Project
DUE DATE: June 5

This assignment has you perform an empirical study from start to finish. Think of this as you bait the hook, throw the line in the water, catch the fish and bring it on the boat, clean the fish, cook it, and plate it to serve. You figure out what you are going to investigate, collect the data, run the regressions, and report the results. You will find Chapter 3 is be very helpful in how you conduct your study and organize your report. Although we will not cover Chapter 11, this is also a great place to look for guidance.

Turn in quarter page project proposal on Wednesday, April 17. Very brief statement as to the economic relationship you plan to investigate. This should include conceptually the theoretical relationship and the variables you plan to use.

GUIDELINES FOR WRITTEN ASSIGNMENT

Theme: Analyze an economic relationship with data through a regression analysis.

Objective: To recognize how empirical analysis can give help validate or not economic relationships.

Desired Result: To be able to communicate regression results related to the economic question at hand.

Outline

I. Identify your Economic Relationship
II. Specify your model: Choose the dependent variable and independent variables. How are they measured? What functional form for the estimating equation? Reference the source for your data.
III. Based on the economic relation, what are the expected signs of the coefficients?
IV. Estimate the equation.
V. Evaluate the equation: Any tests for violations of assumptions? Specification error? Changes of functional form?
VI. Document the Results. How do you interpret your findings?

Please keep in mind that your optimal solution to completing this assignment is constrained by a 5 page text maximum (double-spaced, 10 cpi (usually font size 12), 1” margins -- top, bottom, and sides). Supporting materials can be in a one page appendix.

EC 569 students will do a 20 page text maximum with more extensive literature review of the economic relationship, more testing of statistical assumptions, bibliography at the end.