

SYLLABUS
ECG562: Topics in Applied Econometrics
North Carolina State University, Department of Economics
Fall 2011, Wednesdays 6:00-8:45pm
2403 Nelson Hall

Instructor Information:

Melinda Sandler Morrill, Assistant Professor

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Office: Nelson Hall 4144, Office hours Tuesday afternoons by appointment only

Course Summary:

This course focuses on the application of advanced econometric techniques to selected issues in economics. We will discuss the issues researchers face when conducting empirical studies and the techniques developed to overcome these obstacles. Students will learn to analyze data using econometric software. Students will gain practice in presenting econometrics results in a professional fashion, both in written or oral form.

Link to Course Website: <http://www4.ncsu.edu/~msmorri/courses/ECG562>

Updated assignments and readings will be posted on the course website.

Prerequisites:

Students should have successfully completed ECG561. Students should have a good working knowledge of econometric theory.

Required Textbook:

Wooldridge, Jeffrey M. Introductory Econometrics: A Modern Approach, Second Edition, 4e Edition, South-Western Publishing Company, 2009, ISBN 0-324-66054-5. Students will need to access the datasets and online resources that are companion to the text.

Econometrics Software:

To complete class assignments students will be required to program in either SAS or Stata. The Wooldridge textbook provides datasets in Stata format or as raw data files (which can be read into SAS).

SAS is available in the computer laboratories.

A student version of Stata may be purchased from Stata for \$32 for a 6-month license. For details see: <http://www.stata.com/order/new/edu/gradplans/gp-direct.html>.

Evaluation:

Grades will be calculated according to the following weights:

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| (1) Homework and In-Class Quizzes | 20% |
| (2) Midterm Exam (Tentative Date: in class October 5) | 25% |
| (3) Final Exam (Wednesday, December 14 from 6-9pm) | 30% |
| (4) Group Project (Paper and Presentation) and Class Participation | 25% |

Group Project:

The assignment will be to conduct an empirical exercise on a well-defined problem and research question. Groups will write-up results in a short paper and present results for the class. Students may use original data or may use publicly available datasets. Students may form their own groups; all students remaining will be assigned to groups. Details on the assignment will be distributed in class.

Make-ups and Anticipated Absences, Disability Accommodations:

If you need to miss a class for a religious observance or for another University-approved reason, please notify me within the first two weeks of class. Students requiring special accommodations for disabilities should schedule an appointment to discuss this within the first two weeks of class.

There will be no make-ups or extensions given for the problem sets, group project, in-class quizzes, or examinations except with prior consent from me or in the event of a documented unexpected emergency.

Course Evaluation Schedule:

Online class evaluations will be available for students to complete during the last 2 weeks of the semester. Students will receive an email message directing them to a website where they can login using their Unity ID and complete evaluations. All evaluations are confidential; instructors will not know how any one student responded to any question, and students will not know the ratings for any instructors.

Evaluation website: <https://classeval.ncsu.edu/>

Student help desk: classeval@ncsu.edu

More information about ClassEval: <http://www.ncsu.edu/UPA/classeval/>

Topics (tentative and subject to change), Chapter numbers refer to course textbook:

- I. Review of basic econometric theory (Chpts 1-6)
- II. Doing empirical research in economics, (Chpts 9 and 19)
- III. Limited Dependent Variable Models (Chpts 7 and 17)
- IV. Heteroskedasticity (Chpt 8)
- V. Panel Data, Fixed Effects, and Difference-in-Differences (Chpts 13,14)
- VI. Instrumental Variables, Two-Stage Least Squares, Regression Discontinuity Design, Simultaneous Equations models (Chpts 9, 15, and 16)
- VII. Time Series Econometrics (Chpt 10)