

Econ 8473
Applied Econometrics
Fall 2009

Instructor	J. Isaac Miller	millerjisaac@missouri.edu
Course	TR 3:30-4:45PM	Middlebush 207
Office Hours	TR 10:30AM-12:00PM	Professional 221
Web Page	http://web.missouri.edu/~millerjisaac/E8473/E8473.html	

Course Objectives

This course is designed to cover some key econometric techniques not covered in E8472, but which may be very useful in completing your master's thesis.

Course Prerequisites

This course is a continuation of E8472. Although I will review some of the core material covered in E8472, I expect you to have programming experience in SAS, some knowledge of basic matrix algebra, and a firm understanding of basic statistics. All graduate students from economics or other departments are welcome. However, please note that this course does *not* fulfill the econometrics requirement for PhD students in the economics department. The required course is E9473 – not E8473.

Course Expectations

You are responsible for attending class and completing all assigned work. If you need to miss class, you should get the lecture notes from a classmate. Assignments will require a statistical software package. I will provide some SAS instruction in class, and I suggest you use SAS. You may use an alternative software package, if you choose.

Course Grade Composition

Three Tests 30% (each) of the course grade

Three *open-notes, take-home* tests will be administered during the course of the semester. The tests will involve programming. By open-notes, I mean that you may use any non-interactive source (e.g., course notes, textbook, web, SAS manual) for help. You *may not* use any interactive source (any person other than me, including web forums, email, etc.). In particular, **you may not discuss the tests with your classmates**, until after everyone has turned in their answers. I take the University's policy on academic integrity and cheating (see below) very seriously.

The approximate dates will be mid-September, mid-October, and during the final exam period. I will announce the exact dates well in advance. Each test will count as 30% of the final course grade. There will be *no make-up tests*.

Final Project..... 10% of the course grade

A final project will involve some sort of empirical econometric exercise and may involve presenting your results to your classmates. The nature of the project will somewhat depend on course enrollment and students' interest, but is intended to help you towards your master's research.

Required Text

Wooldridge, J.M. (2009). *Introductory Econometrics: A Modern Approach*, 4th ed.

Recommended Text

Greene, W.H. (2008). *Econometric Analysis*, 6th ed. (or earlier).

Tentative List of Topics Covered

- Review of SAS Programming Basics
- Review of Least Squares (JMW Ch. 2-5, App. E; WHG Ch. 2-4)
- Introduction to Nonlinear Least Squares (WHG Ch. 11)
- Numerical Optimization (WHG App. E)
- Maximum Likelihood Estimation (JMW pp. 578-579; WHG Ch. 16)
- Panel Data Methods (JMW Ch. 13-14; WHG Ch. 9)
- Limited Dependent Variables (JMW Ch. 17; WHG Ch. 23-25)
- Systems of Equations (JMW Ch. 16; WHG Ch. 10, 13)
- Time Series Techniques (JMW Ch. 10-12, 18; WHG Ch. 19-22)

Statement on Academic Dishonesty:

Academic integrity is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards breaches of the academic integrity rules as extremely serious matters. Sanctions for such a breach may include academic sanctions from the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, collaboration, or any other form of cheating, consult the course instructor.

Statement on Disabilities:

If you need accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please inform me immediately. Please see me privately after class, or at my office. To request academic accommodations (for example, a notetaker), students must also register with the Office of Disability Services, (<http://disabilityservices.missouri.edu>), S5 Memorial Union, 882-4696. It is the campus office responsible for reviewing documentation provided by students requesting academic accommodations, and for accommodations planning in cooperation with students and instructors, as needed and consistent with course requirements. For other MU resources for students with disabilities, click on "Disability Resources" on the MU homepage.

Statement on Intellectual Pluralism:

The University community welcomes intellectual diversity and respects student rights. Students who have questions concerning the quality of instruction in this class may address concerns to either the Departmental Chair or Divisional leader or Director of the Office of Students Rights and Responsibilities (<http://osrr.missouri.edu/>). All students will have the opportunity to submit an anonymous evaluation of the instructor at the end of the course.

Statement on Students of Extraterrestrial Origin:

The University of Missouri-Columbia does not currently have an official policy regarding students of extraterrestrial or alternative planetary origin. I will treat all students fairly, even those falling in this category.