

**ECON 360: Econometrics**  
**Professor Mohitosh Kejriwal**  
**Fall 2009**

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*Lectures:* Mondays and Wednesdays, 3:00pm-4:15pm in Rawls 2077

*Office:* KRAN 410

*Telephone:* (765)-494-4503

*Office Hours:* Tuesdays and Thursdays, 10:00-11:30am and by appointment

*Email:* mkejriwa@purdue.edu

*Teaching Assistants:*

1. Sevan G. Gulesserian (sgulesse@exchange.purdue.edu, Office: KCTR B004F, Office Hours: Wednesdays, 11:00am-noon and by appointment)
2. Robert M. Lantis (rlantis@exchange.purdue.edu, Office: KCTR B004G, Office Hours: Thursdays, 2:00pm-3:00pm and by appointment)

*STATA Help Sessions (Optional):* Fridays, 2:00-4:00pm in Krannert Computer Lab 1.

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*Course Overview:* This course provides an introduction to Econometrics where you will learn the tools that will enable you to conduct empirical research using economic data. The course examines the statistical techniques used in testing economic theory. Emphasis is placed on estimating a single equation (e.g., a demand function) and the problems associated with such estimation. As part of the course, students will estimate equations on the University's computational facility.

*Prerequisites:* Students are expected to understand the material covered in MGMT 305 (Business Statistics). Knowledge of basic calculus and matrix algebra are needed. Background material in probability, statistics, calculus and matrix algebra is reviewed in Appendices A through D of the textbook.

*Problem Sets:* You may work on problem sets in small groups but each student must turn in his/her individual copy. To receive credit, assignments must be handed in by the deadline.

*Exams:* There will be three exams - two midterms and a final. The first midterm will be held on Monday, **October 5** and the second midterm will be held on **November 9** (Please mark your calendars). No late or makeup exams will be allowed. The final exam will be held during exam week (December 14-19). The exact date and location will be known later in the semester. Please do not make any travel plans that week.

*Grading:* Course grades will be based on problem sets (40%), two midterm exams (15% each) and a final exam (30%).

*Course Website:* All material related to the course will be available on the course website in the Katalyst (located on the web at: <https://webapps.krannert.purdue.edu/kap/>). You will need to log in with your Purdue username and password.

*Required Textbook:* The required textbook for this course is “**Introductory Econometrics: A Modern Approach,**” 4th Edition (2008). Thomson South-Western ISBN-13:978-0324581621.

*Computer Lab:* Several homework assignments will require using statistical software. For this course, we will be using STATA which is available for your use in Krannert Computer Labs 1 and 2 (KRAN 7th floor). Throughout the course you will use STATA to complete a series of econometrics exercises designed to provide experience with various tests and estimation procedures. You are encouraged to attend the STATA help session that will be held each Friday (2-4pm) by the teaching assistants. Although not required, you may purchase your own copy of STATA for use on a personal computer. Student pricing is available through the Krannert Computing Center.

*Emergency:* In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances.

*Course Topics:*

- Nature of Econometrics and Economic Data (Chapter 1)
- Simple Regression Model (Chapter 2)
- Multiple Regression Analysis (Chapter 3)
- Linear Regression Model in Matrix Form (Appendix E)
- OLS Inference (Chapter 4)
- OLS Asymptotics (Chapter 5)
- OLS Further Issues (Chapter 6)
- Binary Variables (Chapter 7)
- Heteroskedasticity (Chapter 8)
- Specification and Data Problems (Chapter 9)
- Basic Time Series Analysis (Chapter 10)
- Panel Data Methods (Chapter 14)
- Advanced Topics (as time permits)