

San José State University

Course and Contact Information

Instructor:	Dr. Sanchita Mukherjee
Office Location:	DMH 214
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Office Hours:	M 2pm-3pm and by appointment
Class Days/Time:	M W 10:30am – 11:45am
Classroom:	DMH 161
Prerequisites:	

multicollinearity and heteroskedasticity.

Course Learning Outcomes (CLO) (Required)

The five specific Course Learning Objectives for ECON 103 include:

CLO 1.) Explain core methods in econometrics and identify correct procedures. CLO 2.) Discuss advanced econometric topics at a conceptual level. CLO 3.) Access data and use computer software to estimate econometric models. CLO 4.) Interpret econometric models estimated with computer software. CLO 5.) locate data, format it to be read by regression software, and develop, estimate and interpret an original econometric model to shed light on a problem of social importance.

Upon successful completion of this course, students will be able to:

- 1) specify assumptions, formulate and estimate appropriate models, interpret the results and test their statistical significance
- 2) write a good quality undergraduate term paper in economics using the econometric methods taught in this class

Required Texts/Readings

3) Exams:

There are 2 in-class Midterm exams (20% total, 10% each) and 1 comprehensive final exam (20% of your grade). All of these exams will be multiple choice problems.

Grading Information (Required)

Your grade will be based upon:

4 Problem Sets	40% total, 10% each	PS 1: Mon 9/9 PS 2: Wed 9/25 PS 3: Wed 10/23 PS 4: Mon 11/18
Midterm 1	10%	Wed, 10/2 (in class)
Midterm 2	10%	Wed, 11/6 (in class)
Term Paper	20%	Wed, 12/4 (submit at the end of the class)

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- It is suggested that the green sheet include the instructor’s process for granting permission, whether in writing or orally and whether for the whole semester or on a class by class basis.
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Course Schedule

Week	Date	Topics, Readings, Assignments, Deadlines
1	8/21	Introduction, Syllabus, Basics
2	8/26	Review of Statistical Concepts, What is Econometrics? Understanding Key Terms
2	8/28	Review of Statistical Concepts, Basic Probability
3	9/2	Labor Day (No Class)
3	9/4	Probability and distribution
4	9/9	Simple Linear Regression (Intro, real world example, causality, data, an example) Problem Set 1 Due
4	9/11	Simple Linear Regression with One Regressor (Assumptions with Examples)
5	9/16	Least Squares Regression (Derivations)
5	9/18	Simple Regression Model (Diagnostic Measures, interpreting coefficients in non-linear regressions)
6	9/23	Simple Regression Model (Biased or Unbiased, Estimating Variance)
6	9/25	Running Regression in STATA Problem Set 2 Due
7	9/30	Review
7	10/2	Midterm 1 (in class)
8	10/7	Inference
8	10/9	Inference
9	10/14	Goodness of fit, R-squared Term Paper Proposal Due
9	10/16	Omitted Variable Bias => Multivariate Regression
10	10/21	Intro to Multivariate Regression
10	10/23	Inference Problem Set 3 Due
11	10/28	Multivariate Regression: Linear Combinations of Parameters
11	10/30	Multivariate Regression: Multiple Restrictions, Examples
12	11/4	Review
12	11/6	Midterm 2 (in class)
13	11/11	Nonlinear regression in STATA
13	11/13	

Week	Date	Topics, Readings, Assignments, Deadlines
14	11/18	Interaction Terms, Endogeneity Problem Set 4 Due
14	11/20	Panel Data
15	11/25	Panel Data
15	11/27	Panel Data
16	12/2	Handling Panel Data in STATA
16	12/4	Final Review Term Paper Due
17	12/9	Final Review