

TENTATIVE SYLLABUS - ECO 89-01E

Modeling and Analysis Summer – I 2016

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Preferred Form of Communication: Wednesday 1 PM – 4PM **Communication Response Time:** Meets 06/06/2016 through 07/07/2016

COURSE INFORMATION

Textbook(s) Required: Real Econometrics by Michael A. Bailey, Introductory Econometrics with applications by Ramu Ramanathan

PowerPoint: In order to gain more understanding in the class note book, all of you **must go through the PowerPoint of each chapter thoroughly. See course-home in eCollege for more information.**

Course Objectives: The objective of this course is to provide a foundation to model and analyze data.

1. Investigate and answer questions by collecting, organizing and displaying data from real world situations,

2. Support arguments, make predictions and draw conclusions using summary statistics and graphs to analyze and interpret one variable data

3. Communicate the results of a statistical investigation using appropriate language

4. Investigate real world problems by designing, conducting, administrating, analyzing and interpreting surveys and statistical experiments

- 5. Understanding data and be able to analyze it
- 6. Explore fixed effects models to fight endogeneity in panel data and difference-in-difference models
- 7. Explore instrument variables using exogenous variation to fight endogeneity
- 8. Explore time series dealing with stickiness over time
- 9. Learn advanced Panel data

10. Learn from the case studies to apply to and solve problems

11. Explore, describe and analyze bivariate data using techniques such as scatter plots, regression lines, correlation coefficients and residual analysis

12. Explain and use precise statistic language to make business decisions

14. Learn a practical foundation related to good econometric practices. In every econometric analysis, data meets software and learn about documenting the analysis and understanding data.

Grading

Final grades in this course will be based on the following scale:

A = 90%-100% B = 80%-89% C = 70%-79% D = 60%-69% F = 59% or Below

Grading Policy: Grade Component

	Weight %
Major research projects	30%
Midterm Exam	35%
Final Exam	35%
Total	100%

Assessments:

Grade explanation of assessment type (percentage or points toward final grade)

Week 1	A review of basic statistical concepts exploring data structures and behaviors
Week 1	Exploring data structures and behaviors
Week 2	The art of organizing data: Statistics in the wild: Good data practices
Week 2	Index Numbers
Week 3	Computations of index numbers
Week 3	Hypothesis testing & Data analysis
Week 4	Indicator variables & Beta analysis
Week 5	Out of sample analysis

NOTE THE FOLLOWING

- 1. This syllabus is tentative for the semester. It is meant to be a guide. Certain topics may be stressed more or less than indicated in the class note books and, depending on class progress, certain topics may be omitted.
- 2. Homework problems will be recommended on a regular basis.
- 3. Missed examination: A missed examination will be considered as 'F'.