

ECON 280A1
Economic Data Analysis
9:30-10:45 in C108 Aylesworth
Fall 2017

ABOUT THE COURSE

Professor

Dr. Steven Shulman

Office: B213 Clark

Hours: 1:00-3:00 Mondays & by appointment

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Teaching Assistant

Mr. Reynaldo Agama

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Course Materials

- Required
 - Laptop with mouse – must be brought to every class
 - Excel 2016 – if you don't already have it, get it for free at <https://www.acns.colostate.edu/software-downloads/> (included in Microsoft Office 365 download)
- Recommended
 - Seth Stephens-Davidowitz. 2017. *Everybody Lies: Big Data, New Data and What the Internet Can Tell Us About Who We Really Are*. Harper-Collins.
 - Gary M. Klass. 2012. *Just Plain Data Analysis: Finding, Presenting and Interpreting Social Science Data*. Rowman & Littlefield.
 - Gary Koop. 2013. *Analysis of Economic Data*. Wiley.
 - Edward R. Tufte. 2001. *The Visual Display of Quantitative Information*. Graphics Press.
 - Charles Wheelan. 2013. *Naked Statistics: Stripping the Dread Out of Data*. W.W. Norton.

Course Description

This goal of this course is to build data management and spreadsheet skills. These skills have wide applicability, and can help you succeed in college and in your career. We begin with the big questions about data – what it is and how it is used (and misused) in social and economic research. Then we will address more applied questions such as how data is collected, types of data, where to find data, how to summarize and tabulate data, and data visualization and presentation. The use of tabulations and simple statistics to transform data into meaningful information will be emphasized. Students will work with Excel in every class.

Learning Objectives

By the end of the semester, students should be able to:

- Understand data, its types and its uses and misuses in the social sciences;
- Distinguish quantitative and qualitative research;
- Develop basic Excel skills that can be applied in many settings;
- Find, download and clean data;
- Develop the spreadsheet skills needed to manage data;
- Describe and analyze data with simple measures, including descriptive statistics, correlation and regression;
- Create pivot tables and charts;
- Understand and apply the principles of data visualization;
- Effectively present data in papers and meetings.

Grading

- Requirements
 - Spreadsheets with notes and exercises from each class (30 classes @ 10 points = 300 points)
 - Weekly discussion board postings (15 weeks @ 5 points = 75 points)
 - Project 1 (50 points)
 - Project 2 (100 points)
 - Project 3 (150 points)
- Grade scale (percentage calculated on 675 points)
 - A+ $\geq 97\%$
 - A to 93%
 - A- to 90%
 - B+ to 87%
 - B to 83%
 - B- to 80%
 - C+ to 77%
 - C to 70%
 - D to 60%
 - F <60%

Weekly Workload

- Attend class = 2.5 hours
- Review class notes, solve technical problems and practice Excel = 1 hour
- Discussion board participation = 1 hour
- Project 1 = 0.5 hour (semester average)
- Project 2 = 1 hour (semester average)
- Project 3 = 1.5 hours (semester average)
- Average Weekly Total = 7.5 hours

Course Policies

- All students must utilize a CSU e-mail address.
- All students must bring a laptop with mouse to every class.
- Respect the rights of your fellow students -- no eating, smoking or talking during class. Please do your best to arrive on time. Once you arrive, stay for the entire class.
- Student athletes and other students with university-sanctioned excuses for missing class, or students who must miss class to observe religious holidays, must speak to the professor before the date of their absence to make arrangements to avoid missing any points. Documentation must be provided.
- This course adheres to CSU's academic integrity policy. Violations of the policy, including cheating, plagiarism, unauthorized possession or disposition of academic materials, falsification, and facilitation of academic dishonesty by others, will result in a penalty up to an F for the course. You are responsible for understanding and following this policy -- ignorance is not an excuse!
 - [Click here](#) for information about the CSU Academic Integrity Program.
 - [Click here](#) for information about plagiarism.
 - [Click here](#) for CSU policies on academic integrity as described in the General Catalog.
- Students with disabilities must be certified by Resources for Disabled Students in order to receive an accommodation. [Click here](#) for information about RDS.

Responsibilities of Students

- To attend class and to be aware of course requirements, policies and deadlines;
- To ask questions, make comments, and contribute actively to the class;
- To behave with respect toward your instructors and fellow students, even when they say something with which you disagree;
- To take advantage of office hours and other course resources;
- To learn from each other but to do your own work;
- To promote a culture of academic honesty;
- To solve problems as they arise & to advocate for yourself;
- To make the effort needed to learn (not just survive);
- To take responsibility for your own performance.

Responsibilities of Professor & TA:

- To be prepared, organized and enthusiastic;
- To be genuinely interested in the subject and the students;
- To be respectful and open-minded;
- To give you the resources you need to succeed in the course;
- To treat you professionally and fairly.

WEEK	DATES	LECTURE TOPICS	EXCEL TOPICS	ASSIGNMENTS
1	Aug 22/24	Course overview & goals How to take notes Introduction to data	Introduction to Excel Entering text & numbers	Class notes x2 Discussion board
2	Aug 29/31	Theoretical & empirical economics Quantitative & qualitative research	Manipulating numbers Copying & pasting values Moving around worksheets	Class notes x2 Discussion board
3	Sep 5/7	Uses of data	Importing, setting up & formatting data	Class notes x2 Discussion board
4	Sep 12/14	Misuses of data	Cleaning data	Class notes x2 Discussion board Start Project 1
5	Sep 19/21	How data is constructed & collected	Selecting, moving & organizing data	Class notes x2 Discussion board Finish Project 1
6	Sep 26/28	Types of data	Sorting, filtering & merging data	Class notes x2 Discussion board
7	Oct 3/5	Finding data	Formulas & functions	Class notes x2 Discussion board
8	Oct 10/12	Summarizing & describing data	Pivot tables	Class notes x2 Discussion board Start Project 2
9	Oct 17/19	Tabulating & explaining data	Pivot charts	Class notes x2 Discussion board Finish Project 2
10	Oct 24/26	Correlation	Scatter plots	Class notes x2 Discussion board
11	Oct 31/Nov 2	Regression	Line of best fit	Class notes x2 Discussion board
12	Nov 7/9	Principles of data visualization	Plots, graphs & charts	Class notes x2 Discussion board Start Project 3
13	Nov 14/16	Presenting data	Sparklines & dashboards	Class notes x2 Discussion board
14	Nov 28/30	Student presentations		Class notes x2 Discussion board Finish Project 3
15	Dec 5/7	Student presentations		Class notes x2 Discussion board
16	Mon Dec 11 at 9:40	Student presentations		