OBJECTIVE

Econ 321 is a one-semester course in introductory statistics for economics majors; students in other social sciences, biology, or engineering are also welcome. The topics cover descriptive statistics, probability, and probability distributions, sampling, estimation, hypothesis testing, correlation and simple regression. There is no prerequisite for this class.

TEXT


EXAMS: Weekly (Friday)

There will be a total of five exams. Exams are weekly, scheduled each Friday of the week and they count for 80% of the final grade. I will also assign two projects that will require the use of Microsoft Excel statistical software and writing assignment. The projects will be based on chapters 2 and 10 (graphical presentations and multivariate relationships). You can work alone or cooperate and submit a group project but the group should not exceed three students. The projects are worth 20% of your final grade. Projects 1 and 2 are due on July 28 and August 4, respectively.

TENTATIVE COURSE OUTLINE AND READINGS

Week of:

July 5 Numerical Descriptive Statistics (Chapters 3 and 10 (10.2))

. Measures of Central Location
. Measures of Variability
. Measures of Linear Relations
. Introduction to Excel

July 11 Probability (Chapters 4 and 5 (5.1-5.2))

. Fundamentals
. Joint, Marginal, and Conditional Probability
. Probability Rules and Trees
. Discrete Random Variables and Probability Distributions
. Counting Techniques

Excel Practice Exercise: Determinants of hourly earnings using a sample of CPS data
July 18  Probability and Sampling Distributions (Chapter 6 and notes)

. Binomial Distributions
. Normal Distribution
. Sampling Distributions

*Project 1: Determinants of diabetes using state-level CDC’s data (Due: July 28)*

July 25  Estimation and Sample Sizes / Hypothesis testing (Chapters 7 and 8)

. Overview
. Estimating a Population Mean: $\sigma$ known
. Estimating a Population Mean: $\sigma$ not known
. Basic of Hypothesis Testing
. Testing a Claim about a Mean: $\sigma$ Known
. Testing a Claim about a Mean: $\sigma$ not Known

*Project 2: Determinants of Economic Growth using Mankiw, Romer and Weil’s data (QJE, May 1992) (Due: August 4)*

August 1  Hypothesis Testing / Correlation and Regression (Chapters 9 and 10)

. Inferences about two Population Means: Independent Samples
. Inferences from Matched Pairs
. Simple Regression

**NOTE:** There is nothing random about exam dates. Plan accordingly, as *no make-ups* will be given except under extreme circumstances (accident, illness). I reserve the right to verify all evidence before a make-up exam is scheduled.