

STATISTICS 213
“STATISTICAL METHODS I”
Fall 2005
SYLLABUS

NOTE: All quizzes will be written in the lab. No formula sheets permitted for the quizzes. Tables will be provided if needed.
The Final will be scheduled by the registrar’s office. One standard sized formula sheet permitted. Write whatever you want on both sides. Tables will be supplied for final.

Schedule for quizzes and midterm

Quiz 1 September 28th
Quiz 2 October 12th
Quiz 3 October 26th
Midterm November 9th (written during regular scheduled class)
Quiz 4 November 23rd
Quiz 5 December 7th

No classes on Monday, October 10th and November 10th (Thursday) and November 11th (Friday).
Classes end on December 9th (Friday).

Topics Covered

Sections covered in suggested text “Statistics 9th edition” (should be similar in 10th edition) by McClave & Sincich. Try to do as many questions as possible from the text that relate to these sections and topics.

- (1) Distributions: location, spread, shape. Mean, median, variance, percentiles, quartiles, histograms, boxplots. Stem and Leaf plots. Numerical and graphical methods. **(Chapter 1&2)**
- (2) Probability: sample spaces, events, frequency, Venn diagrams, mutually exclusive, independent events, Bayes’s Rule, combinatorics. **(Chapter 3)**
- (3) Expectations: random variables, discrete and continuous. Distributions with the Binomial and Poisson as the prime examples. Simple functions of random variables. Expectations including theoretical means and variances. **(Chapter 4)**
- (4) Normal Distribution: Basic introduction to using Normal tables and calculating outcome frequencies. Simple examples using the Normal and Binomial. Central Limit theorem **(Chapter 5.3-5.5, chapter 6.3)**
- (5) Confidence intervals and hypothesis testing for means and proportions. Sample sizes for desired error margins and p-values. **(Chapter 7,Chapter 8.1-8.5)**
- (6) Least Squares Regression Line. **(Chapter 11.1-11.4, 11.6-11.7)**