

STATISTICS 213
“STATISTICAL METHODS I”
Winter 2004 Lecture 08

SYLLABUS

NOTE: All quizzes will be written in the lab. No formula sheets permitted for the Quizzes or Midterm!!

Tentative schedule for quizzes and midterm

Quiz 1 January 29th and 30th

Quiz 2 February 12th and 13th

Quiz 3 March 4th and 5th

Midterm March 19th (written in class)

Quiz 4 April 1st and 2nd

Quiz 5 April 15th and 16th

Final – decided by register’s office (1 standard sized formula sheet permitted)

In order to write a missed midterm due to an illness, a valid letter from a physician must be presented. The midterm must be written prior to it being passed back.

Topics Covered

- (1) Distributions: location, spread, shape. Mean, median, variance, percentiles, quartiles, histograms, boxplots. Stem and Leaf plots. Numerical and graphical methods.
- (2) Probability: sample spaces, events, frequency, Venn diagrams, mutually exclusive, independent events, Bayes’s Rule, combinatorics.
- (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.
- (4) Normal Distribution: Basic introduction to using Normal tables and calculating outcome frequencies. Simple examples using the Normal and Binomial. Central Limit theorem
- (5) Confidence intervals and hypothesis testing for means and proportions. Sample sizes for desired error margins and p-values.
- (6) T-distribution.
- (7) Least Squares Regression Line.