CAM 203  Statistics I  Semester 2, 2005–06

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Course Information

• Textbook

• Statistical Tables (The Red Book)
The Red Book will be provided in the exam.

• References
• Lecture Notes
  You will need to print the notes from Blackboard.

• Continual Assessment (CA)
  The CA is made up of one 60-minute test and about 10 assignments.
  The test will be conducted during the first or second week after the recess. The CA will constitute no more than 30% of the final grade.

• Examination
  The exam will constitute at least 70% of the final grade.
  Calculators with statistical functions will be needed in the exam.

• Questions? See me.
Course Outline  (Textbook Chapters 1, 3–6, 8–9)

1. Descriptive Statistics
   (i) Population and Sample
   (ii) Measures of Centre, Variation, and Relative Standing
   (iii) Statistical Graphs: Stem-and-Leaf Plots, Box Plots

2. Discrete Probability Distributions
   (i) Probability Functions
   (ii) Expected Values
   (iii) The Binomial Distribution
   (iv) The Poisson Distribution
   (v) The Hypergeometric Distribution
   (vi) The Geometric Distribution

3. Continuous Probability Distributions
   (i) Probability Density Functions
   (ii) The Uniform Distribution
   (iii) The Exponential Distribution
   (iv) The Normal Distribution
   (v) Normal Approximation to Binomial
   (vi) Normal Approximation to Poisson

4. Sampling Distributions
   (i) Sampling Distributions of Statistics
   (ii) Sampling Distribution of Sample Mean
   (iii) Sampling From Normal Distribution
   (iv) The Central Limit Theorem
(v) Sampling Distribution of Sample Variance

5. Estimation with Confidence Intervals I
   (i) Point and Interval Estimation
   (ii) Confidence Intervals for a Population Mean
   (iii) Confidence Intervals for a Population Proportion
   (iv) Confidence Intervals for a Population Variance

6. Estimation with Confidence Intervals II
   (i) Confidence Intervals for the Difference Between Two Population Means
   (ii) Confidence Intervals for Mean of Differences Between Paired Samples
   (iii) Confidence Intervals for the Difference Between Two Population Proportions