MA171 Introduction to Probability and Statistics

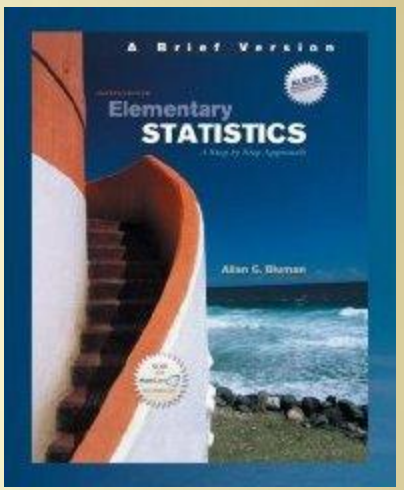
Winter 2009

MA171 Syllabus

- Class Meeting Hours
  - Monday, Tuesday, Wednesday, Thursday
  - 9:00 – 9:50 AM, West Science 1705
- Instructor
  - Roxin Zhang
  - New Science Building 3013

    rzhang@nmu.edu
- Computer and Calculator Requirements
  - A computer with Excel installed (mandatory)
  - A scientific calculator is needed for day-to-day work

- Prerequisite
  - A C- or better from MA103/104/105 or Recommendation from NMU Math Placement



- Text Book
  - Elementary Statistics – A Brief Version (4e) by Allan G. Bluman

- Tests and Quizzes
  - 5-6 Biweekly Quizzes or Projects (drop one lowest quiz)
  - One Midterm (multiple choice)
  - One final exam (multiple choice), Wednesday April 29, 8:00 – 9:50am

- Grading
  - Quizzes and Projects 50%
  - Midterm 20%
  - Final Exam 25%
  - Attendance 5%

  The grade is given based on the weighted average of the above:
  A 95%, A- 90%, B+ 85%, B 80%, B- 75%, C+ 70%, C 65%, C- 60%, D+55% etc.

- Homework
  - Homework will be assigned daily and you must work on the assigned problems to understand the concepts.

- **Liberal Studies Requirement**

  - This course satisfies the Formal Communication Studies requirement. This course is designed to introduce students to the ways in which information and ideas are expressed using a communication system other than English. Such courses should foster the student's ability to conceptualize and communicate in an orderly, rational manner. Characteristics of a communication system include:

  - 1. possession of a grammar;
  - 2. operation from an established set of rules;
  - 3. reasoning properties such as deduction, inference drawing and problem solving. This includes courses in languages and those in which the central focus of the course is on statistics, computers or formal logic.

- **DISABILITY SERVICES**

  - If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office by: coming into the office at 2001 C. B. Hedgcock; calling 227-1700; or e-mailing disserv@nmu.edu.

  - Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.

Course Contents

- Chapter 1-6: Descriptive Statistics
  - Nature of Probability and Statistics
  - Frequency Distributions and Graphs (Brief)
  - Data Description (Central Tendency, Variation and Position)
  - Probability and Counting Rules
  - Discrete Probability Distributions
  - Normal Distributions

- Chapter 7-11: Inferential Statistics (more computer)
  - Confidence Intervals
  - Hypothesis Testing
  - Two-sample Tests
  - Correlation and Regression
  - Chi-Square and Analysis of Variance (ANOVA)