



Faculty of Science
DEPARTMENT OF MATHEMATICS AND STATISTICS
Course Information Sheet

1. **Course:** STATISTICS 213 **Term:** Spring 2003
Lecture/Time/Session: L20 MWF 14:00-15:40 **Room:** ST 143
Instructor: Nancy Morrison
Office: MS 368 **Office Hours:** MWF 13:00-13:50 **Email:** morrison@math.ucalgary.ca **Phone:** 220-8213
Suggested Text: Statistics 9th edition McClave, Sinich

2. **Prerequisites:** Mathematics or Pure Mathematics 30

NOTE: The Faculty of Science policy on pre- and co-requisite checking is outlined on page 210 of the 2002-2003 Calendar. **It is the students' responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.**

3. **Fee policy:** After the last day to drop/add courses, there will be no refund of tuition fees if a student withdraws from a course, courses or the session.

4. **The University policy on grading and related matters** is described on pages 44-53 of the 2002-2003 Calendar. In determining the overall grade in the course, the following weights will be used:

Mid-term Test	[1]	15%
Quizzes	[5]	40% [best 4 of 5]
Final Exam		45%

A passing grade on any particular component of the course is essential to passing the course as a whole. There will be a final examination scheduled by the Registrar's Office.

5. **Missed Components of Term Work.** The regulations of the Faculty of Science pertaining to this matter are outlined on page 211, of the 2002-2003 Calendar. It is the student's responsibility to familiarize herself/himself with these regulations.

6. **Academic misconduct** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the 2002-2003 University Calendar under the heading "Student Misconduct", pages 53-56.

7. **Dates and times of class exercises held outside of class hours (evening tests, Saturday laboratory examinations, weekend field trips, etc.):** There will be no out-of-class-time activities.

Department approval: _____ Date: _____

**“STATISTICAL METHODS I”
SPRING 2003**

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 May 27th

Quiz 2 June 3rd

Quiz 3 June 10th

Midterm June 13th (written in class)

Quiz 4 June 17th

Quiz 5 June 24th

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.