

OUC Biology 300: Biometry Fall 1999

Professor: Brett Goodwin
Phone: 762-5445 ext. 7524
e-mail: bjgoodwi@okuc02.okanagan.bc.ca
web pages: <http://www.sci.ouc.bc.ca/biol/BGbiol300.html>

Office: SCI room 109
Office hours: to be determined

Lectures: Mon., Wed., & Fri. 13:30-14:30, ART 106
Labs: Mon. or Fri. 16:30-18:30, SCI 128

COURSE OBJECTIVES:

The objective of this course is to introduce you to the key concepts and techniques used in the statistical analysis of data, primarily biological data. We will focus on analyzing real data sets and the interpretation and presentation of those analyses. You will also learn how to use the statistical package in EXCEL and the stand-alone package SPSS to perform statistical analyses.

TEXTBOOK: (available in bookstore)

Daniel, W.W. 1999. *Biostatistics: A Foundation for Analysis in the Health Sciences*, 7th ed. John Wiley & Sons, New York.

PREREQUISITE: Math 121/122 and 3rd year standing

LABORATORY SESSIONS:

The computer labs will give you the chance to analyze real data. Assignments will be made available on the WWW (usually the Friday before the week of the lab), you can begin working on them as soon as they are available. Assignments will be due, in my office, by 16:00 the Wednesday following the week of the lab. Late assignments will not be accepted. Assignments must be done on a word processor. Plagiarism will not be tolerated: a first offence will earn a mark of 0 on the assignment and a second offence will earn a mark of 0 in the course.

EVALUATION:

You will be evaluated based on the assignments, two midterm exams and a final exam. All exams will be open book so that you can have access to any equations and/or statistical tables you might need. The final exam will be written on the computer.

Assignments (10)	40 %
Midterm Exams (2)	30 %
Final Exam	30 %

BIOMETRY LECTURE SCHEDULE

Week of	Lecture Topic	Reading
Sept. 7	Some Basic Ideas No computer labs	1.1-1.4
Sept. 13	Probability and Probability Distributions	3.1-3.4, 4.1-4.7
Sept. 20	Descriptive Statistics	2.1-2.6
Sept. 27	Sampling Distributions and Estimations	5.1-5.4, 6.1-6.4
Oct. 4	Hypothesis Testing Midterm I (Oct. 8)	7.1-7.4, 7.9-7.10, 13.3, 13.4
Oct. 11	Analyzing Frequencies Thanksgiving so no computer labs	12.1-12.3
Oct. 18	More Analyzing Frequencies	12.4-12.6, 13.7
Oct. 25	ANOVA	8.1-8.2, 13.8
Nov. 1	More ANOVA	8.3-8.6, 13.9
Nov. 8	Correlation and Linear Regression Midterm II (Nov. 12)	9.1-9.8, 13.10-13.11
Nov. 15	Polynomial Regression	10.2-10.6, 11.3
Nov. 22	Dummy Variables and ANCOVA	11.2
Nov. 29	A little room to maneuver	
Dec. 6	Review	

This schedule is tentative and may change slightly depending upon how quickly or slowly we cover the material. I will keep you informed as things change.