

CAMOSUN COLLEGE
MATHEMATICS DEPARTMENT
COURSE OUTLINE

MATH 116 Elementary Statistics

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Calendar Description: This course is designed for students in criminal justice and social science programs. Topics: descriptive statistics, probability and probability distributions, the normal distribution, estimating population means and proportions, hypothesis testing, goodness of fit, linear correlation and regression, and non-parametric statistics.

In-Class Workload: 4 lectures each week, 1 computer lab every other week.

Out-of-Class Workload: 4 – 6 hours per week.

Textbook:

Triola, Goodman and Law, Elementary Statistics, Second Canadian Edition, Addison-Wesley, 2002.

Course Summary:

<u>Topic</u>	<u>Sections</u>
Introduction	1.1 – 1.4
Descriptive Statistics	2.1 – 2.7
Probability	3.1 – 3.4, 4.1 – 4.4
Normal Probability Distributions	5.1 – 5.5
Estimates and Sample Sizes	6.1 – 6.4
Hypothesis Testing	7.1 – 7.5
Chi-Square Tests	10.1 – 10.3
Tests Comparing Two Parameters	8.1 – 8.3, 8.6
Correlation and Regression	9.1 – 9.3
Non-parametric Tests	13.1 – 13.3 if time permits

Lab: This course includes lab sessions designed to familiarize students with the use of a computer as a tool for statistical analysis. The computer software we will use is Statistics Program for Social Scientists (SPSS). You must have a computer account and a lab manual ready before your first lab. The required lab manual is available in the bookstore at Lansdowne Campus. A lab assignment will be assigned for each lab session. A take-home Lab Final Examination will be given near the end of the term.

Against All Odds: Inside Statistics Video Series: The college purchased this video series to assist you studying this course. Each video focuses on one topic of this course. Students who have viewed these videos in the past found them helpful and fun to watch. The video can be signed out at the front desk of the library as reserved items. It is recommended that you view them in the video room of the library.

Calculator: A scientific calculator, preferably with statistical functions, is required. There are many different kinds of calculators that are suitable for this course and they may function differently. Please read the manual of your calculator to figure out how to use the statistical functions.

Homework: Homework will be assigned in the beginning of each section of the text. All homework that assigned before test #1 will be collected on the day of test #1 before the test. All homework that assigned between test #1 and test #2 will be collected on the day of test #2 before the test, and so on so forth. Students are also recommended to practice some of the unassigned odd number problems in the textbook. The key for earning a good grade in a Statistics course, in particular this course, is to do homework after every class and to stay on top consistently.
Cramming will not work for this course.

Practice Tests: There will be a practice-test-session in class on the day before each test. Students would benefit most by coming to the practice-test-session having reviewed the sections of material to be covered by the test. Students are encouraged to ask me questions and to discuss among peers during the sessions.

Math Lab: The Mathematics Department has a Math Lab (Ewing 224) to support mathematics students. In the Math Lab, free tutoring, reference texts, computer software, and other math learning supports are available. The Lab opens for regular day, some weekends and evening hours. Check the schedule posted on the lab door. During these times, a TA is available to provide assistance with the course material. All students are encouraged to take the advantage of the Math Lab service.

Evaluation: A tentative schedule for the tests and their percentages as that of the final grade are given in the table below. Each test covers material learned between this test and the previous test. The final exam covers all material. The student's evaluation may be solely based the results of the final examination provided that all class-assignments and lab-assignments are completed.

All tests must be written during the scheduled period and all assignments must be handed in on time.

Test 1	Thursday, January 30	10%
Test 2	Thursday, February 20	10%
Test 3	Thursday, March 13	10%
Test 4	Thursday, April 3	10%
Lab assignments and hw		10%
Final Exam Part I: Lab Final (take home)	TBA	10%
Final Exam Part II: Regular (3 hours)	To be scheduled by the College	40%

NOTE: Final examinations will be held from April 14 to April 17, and from April 22 to April 25. You must be available to write the final exam at the scheduled time.

Grading:

A+ : 95 - 100%	B+ : 80 - 84%	C+ : 65 - 69%	F: 0 - 49%
A: 90 - 94%	B : 75 - 79%	C : 60 - 64%	
A-: 85- 89%	B-: 70 - 74%	D: 50 - 59%	