



**School of Arts & Science
MATHEMATICS DEPARTMENT**

**MATH 116-005
Elementary Statistics
2007W**

COURSE OUTLINE

The Approved Course Description is available on the web @
<http://www.camosun.bc.ca/learn/calendar/math.html#MATH116>

1. Instructor Information

(a)	Instructor:	Cathy Frost		
(b)	Office Hours:	Please find them on my webpage		
(c)	Location:	E250		
(d)	Phone:	370-3404	Alternative Phone:	
(e)	Email:	frost@camosun.bc.ca		
(f)	Website:	http://frost.disted.camosun.bc.ca		

2. Intended Learning Outcomes

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

Upon completion of this course the student will be able to:

1. Identify problems in our society for which statistical analyses are suitable.
2. Compute and interpret descriptive statistics.
3. Solve basic probability problems. Distinguish between continuous and discrete probability distributions. Perform calculations involving various probability distributions including Binomial and Normal distributions.
4. Estimate the population mean and population proportion, and determine sample size.
5. Estimate the difference between two means, or two proportions.
6. Test hypotheses about a mean, a proportion, a difference of two means, or a difference of two proportions.
7. Perform basic correlation and simple linear regression analysis.
8. Perform basic categorical data analysis.
9. Perform basic statistical data analysis with the aid of a computer software package.

3. Required Materials

- (a) Textbook: Triola, Goodman and Law, Elementary Statistics, 2nd Can. Ed., Addison-Wesley, 2002
- (b) Lab Manual: Calver and Chen, "Math 116 Lab Manual", Camosun College Print Shop

- (c) A Sharp EL-531 (or EL-531W) Scientific Calculator is required for all tests and the final exam. This calculator is available at the Lansdowne Bookstore, and other stores such as Staples and Office Depot.

4. Course Content and Schedule

(Can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

<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 – 5.6
Estimates and Sample Sizes	6.1 – 6.4
Hypothesis Testing	7.1 – 7.5
Correlation and Regression	9.1 – 9.3
Chi-Square Tests	10.1 – 10.3
Tests Comparing Two Parameters	8.1 – 8.3, 8.6

Lab: The lab sessions designed to familiarize you with the use of a computer as a tool for statistical analysis. The computer software we use is the 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. Lab assignments are due the following Monday after your lab (5 days after your lab). A take-home Lab Final Examination will be given near the end of the term.

Against All Odds: Inside Statistics Video Series: Students who have viewed these videos in the past found them helpful and fun to watch. Each video focuses on one topic of this course. The videos can be signed out or viewed in the video room in the library.

Homework: Homework problems are included at the end of the course outline. The required problems are divided into four (4) homework assignments. Each homework assignment is due in class immediately before its respective test for credit (to check for completion). For full marks, you must show all work. An answer without work, like the ones appear in Appendix E of the textbook, will not be counted.

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 does not work for this course.**

Practice Tests: There will be a practice test session on the day before each test. I encourage you to ask questions and to discuss problems with your peers during these sessions. You will benefit most from the practice tests when you come having reviewed your notes, completed all the homework problems, and have made a formula sheet.

5. Basis of Student Assessment (Weighting)

All tests must be written during the scheduled period. If you are ill you must contact me by e-mail before the test to make alternate arrangements. NO late homework or late lab assignments will be accepted. You must be available to write the final examination during the exam period set by the college during Apr.16-19, 23-24.

Test 1 (1.1-2.7)	Wednesday, Jan. 31	8%
Test 2 (3.2-5.3)	Wednesday Feb. 21	8%

Test 3 (5.4-7.3)	Wednesday Mar. 14	8%
Test 4 (7.4-10.3,8.2, 8.3, 8.6)	Wednesday Apr. 4	8%
Homework and Lab assignments		18%
Lab Final (take home)	Take-home due Apr. 11	10%
Final Examination (all material)	Time and room TBA	40%

Score 1

Score 2

4 Assignments / 5 Labs	18%
4 Quizzes	32%
Take home Lab Final	10%
Cumulative Final Exam (3 hrs)	40%

A student's final grade will be the maximum of Scores 1 and 2 provided that all homework and lab assignments have been completed and submitted on time. Otherwise, their final grade will be Score 1.

6. Grading System

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

Take home Lab Final	10%
Cumulative Final Exam (3 hrs)	90%

Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
95-100	A+		9
90-94	A		8
85-89	A-		7
80-84	B+		6
75-79	B		5
70-74	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at camosun.ca or information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.

CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.
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Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at camosun.ca for information on conversion to final grades, and for additional information on student record and transcript notations.

7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services and on the College web site in the Policy Section.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED