CAMOSUN COLLEGE

COURSE OUTLINE

MATH 219 Introduction to Probability and Statistics II

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Textbook:

- 1. Devore, J. L. *Probability and Statistics for Engineering and the Sciences*, 5th Edition, Duxbury, 2000.
- 2. Susan Chen, Math 219 Lab Manual, Camosun College Print Shop.

Course Outline:

<u>Topic</u>		<u>Chapters</u>
Unit 1.	Confidence Intervals for the Variance	7.4 plus notes
Unit 2.	Inference Based on Two Samples	9.1 – 9.5
Unit 3.	The Analysis of Variance	10.1 - 10.3
Unit 4.	Multifactor Analysis of Variance	11.1 - 11.2
Unit 5.	Simple Linear Regression and Correlation	12.1 - 12.5
Unit 6.	Analysis of Categorical Data	14.1 - 14.3
Unit 7.	Distribution-Free Procedures	15.1 - 15.3
Unit 8.	Quality Control Methods	16.1 – 16.3 if time

Statistical Software and Computer Lab: This course includes lab sessions designed to familiarize students with the use of a computer as a tool for statistical analysis. The software package used is MINITAB. **You must have a computer account and the Math 219 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. All lab assignments are due in class, six days after they are assigned on the lab day. No late assignments will be accepted. There will be Lab Final Examination.

<u>Calculator</u>: A scientific calculator with statistics mode is required. For example, SHARP EL-531V Advanced D.A.L. (\$15 range) is suitable for Math 219. When you purchase a calculator, consider one that has the following functions that are necessary for Math 219: (1) Normal scientific calculations, (2) Single-variable statistical calculations, (3) Two-variable statistical calculations including correlation and linear regression.

Homework: The homework problems for this course are posted on my web page and will be handed out in class. All "required" homework problems assigned to those sections that will be examined by a test are due in class immediately before that test for credit.

- (i) You must label your homework with section number, page number and question number.
- (ii) You must show all work for each problem. An answer without work will not be counted as "complete".
- (iii) You must mark your homework against the answers in the back of the textbook. Mark your answer with either a check sign " $\sqrt{}$ " or an "X" with correction. The number of incorrect problems will not affect your mark on the homework.
- (iv) List the number of questions that were not completed in each section.
- (v) On the front page of the homework, give the total number of questions that were not completed in this homework.

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.

Evaluation: A tentative schedule for the examinations and their percentages as that of the final grade are given in the table below. Each test covers materials learned between this test and the previous test. The final exam covers all materials. The student's evaluation may be solely based the result of the final examinations provided that all homework and lab-assignments are completed up to the instructor's satisfaction.

All tests must be written during the scheduled period and <u>no</u> late hw/assignments will be accepted. Final examinations will be held from April 13 to 17 and from April 19 to 21. You must be available to write at the scheduled time.

Test 1	Wednesday, February 18	20%
Test 2	Wednesday, March 31	20%
Lab Assignments and Homework		10%
Lab Final Exam	TBA	10%
Final Exam	TBA	40%

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%	