CAMOSUN COLLEGE	***School of Arts & Science*** ***MATHEMATICS DEPARTMENT*** **MATH 116-01** **Elementary Statistics** **2010 Winter**

COURSE OUTLINE

The Approved Course Description is available on the web @
http://camosun.ca/learn/calendar/current/web/math.html
Please note: this outline will be electronically stored for five (5) years only.
It is strongly recommended students keep this outline for your records.

1. Instructor Information

(a)	Instructor:	Susan Chen
(b)	Office:	E260
(c)	Phone:	370-3497
(d)	Email:	chen@camosun.bc.ca
(e)	Webpage:	http://chen.disted.camosun.bc.ca
(f)	Desire2Learn page	http://online.camosun.ca/
(g)	Office Hours:	9:30 – 10:30 AM Monday – Friday

2. Intended Learning Outcomes

The prerequisite is a C or higher in Principles of Math 11, or Applications of Math 11, or MATH 072, or assessment. 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)	**Texts**	**Textbook** De Veaux, Velleman and Bock, Intro Stats, Second or Third Edition, Pearson Addison Wesley, 2009 **Lab Manual** Math 116 Lab Manual, Camosun College Print Shop
(b)	**Other**	A Sharp EL-531 Scientific Calculator. *No other calculators are allowed for tests and the final examination.*

4. Course Content

Topic	Chapters
Exploring and Understanding Data	1- 6
Exploring Relationships Between Variables	7- 10
Gathering Data	12 - 13
Randomness and Probability	14 - 17
From the Data at Hand to the World at Large (Inference about proportions)	18 - 21
Learning about the World (Inference about means)	23 - 25
Inference When Variables are Related	26

Desire2Learn (D2L): This class has the assistance of D2L, an online course management system. Every student registered for this class has access to D2L.

Login Site: **http://online.camosun.ca.**
Username: **firstname.lastnamedate-of-birth.**
Password: **MMDDYY** of your birthdate

For example, John Smith, born on March 7, 1991. has username: **john.smith07**; and password: **030791**. All course related materials, such as slides, practice tests and their answers, marks, and announcements will be available on D2L. It is your responsibility to check it regularly.

SPSS Labs: This course includes six computer lab sessions designed to familiarize students with the use of a computer as a tool for statistical analysis. The statistics software we use is called Statistics Program for Social Scientists (SPSS), which is bundled with new textbooks. *You must have a lab manual ready before your first lab*. The required lab manual is available in the bookstore at Lansdowne Campus and on D2L. A lab assignment is assigned for each lab session, except for the Lab Intro session. Lab assignments are due on the **Thursday** following the lab session. The labs will be held in the computer lab E115 on the following days: January 8, January 15, January 29, February 12, March 12, and March 26.

Attendance: *Attendance is required***.** Showing up to classes is the easiest and most important thing you can do to help you succeed the course. **Keeping up is an essential part of any statistics course as much of the material builds on itself.** If you feel yourself falling behind at any point during the term, then please do not hesitate to come speak to me. ***Only Students with good attendance will be eligible for the "100% final" option (see Item 5, Score 2).***

Math Labs: There are two math labs (help centers), **E224** and **E342,** on the Lansdowne campus staffed by instructional assistants available for free for students who would like help or would like to work with others.

Homework: "*I hear, I forget. I do, I understand.*" Doing homework is an essential part of studying a Math course and Math 116 is no exception. There are two sets of homework problems for this course, Minimum and Extra. The "Minimum" set is to be submitted for credit. The "Extra" set is for you to practise on your own, and they have solutions in the Student Solutions Manual. In order to get a full understanding of the course materials, most students need to do some or all of the "Extra" problems.

It will be very helpful if you can schedule at least 30 minutes each day for completing the homework. Ask questions before you get frustrated or behind. Please try to understand what you are doing when you work through each problem. Try to attempt each problem before you look at the solutions. Please remember the objective of doing homework is to gain a better understanding of the course material.

In order to gain a good understanding (and therefore a good grade!) in this course, it is **essential** to thoughtfully work through each homework problem after every class and to keep up consistently. **Cramming does not work for this course, unfortunately.**

Practice Tests: There will be a practice test session on the day before each test. Students are encouraged to ask questions and to work together with peers during these sessions. Solutions for these practice tests will be posted on Desire2Learn after each session. *You will benefit most from these practice tests if you come to these sessions with the notes reviewed, all homework problems completed, and a summary sheet made.*

5. Basis of Student Assessment (Weighting)

Score 1

Assignments / Labs	20%
Tests (50 min each)	30%
Lab Final	10%
Cumulative Final Exam (3 hrs)	40%

Score 2

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

Your final grade will be the higher of Score 1 and Score2 if all homework and lab assignments have been completed and submitted on time, and your attendance has been excellent. Otherwise, your final grade will be Score 1. Note that in order to pass this course (D or higher), you must obtain a final examination score of 40% or higher.

Please refer to the **Pace Schedule** for tentative *test dates* and lab/homework *due dates*.

All tests must be written during the scheduled times. In the event that you missed a test due to family emergency or illness, the weight of the test will be put on the final exam *if* a note (email or paper) has been sent to the instructor before the test time. NO late assignments or lab assignments will be accepted for credit. Final examinations will be scheduled by the college and they will take place during April 12-17 & 19-20. You must be available to write the final examination at the scheduled time.

6. Awards

Among other Mathematics awards, we now have a Statistics Award ($500). You can find out more information about the awards on this page: http://camosun.ca/learn/programs/math/scholarships.html.

7. Grading System

Percentage grades will be converted to letter grades as follows:

A+	[90, 100]	B+	[77, 80)	C+	[65, 70)	F	[0, 50)
A	[85, 90)	B	[73, 77)	C	[60, 65)		
A-	[80, 85)	B-	[70, 73)	D	[50, 60)		

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

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. 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.bc.ca.