CAMOSUN COLLEGE	*School of Arts & Science* *MATHEMATICS AND STATISTICS DEPARTMENT* **STAT 116 001 & 002** **Elementary Statistics** **2017 Fall**

COURSE OUTLINE

The Approved Course Description is available on the web @
http://camosun.ca/learn/calendar/current/web/stat.html

This course is mainly for students in criminal justice, dental hygiene, social sciences and general arts. Topics include descriptive statistics, probability and probability models, one- and two-sample inferences for population means and proportions, simple linear correlation and regression, categorical data analyses.

1. Instructor Information

(a)	Instructor:	Susan Chen
(b)	Location:	E260
(c)	Phone:	250-370-3497
(d)	Email:	chen@camosun.ca
(e)	Course Webpage	Desire2Learn: online.camosun.bc.ca
(f)	Office Hours:	MW 12:30 – 1:20PM, TuTh 9:30 – 10:20AM, F 10:30 – 11:20AM

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 MATH 135, 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, and 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. Course Materials

a) PDF textbook: OpenIntro Statistics 3e by David M Diez. Free download at https://www.openintro.org/stat/textbook.php
b) WeBWork online assignment: http://webworklans.camosun.ca/webwork2/Stat116-Fall2017-Chen/
c) Reference book: *Elementary Statistics* by *Bluman,* any edition.
d) *STAT 116 Excel Lab tutorials*, available on D2L.
e) A Sharp EL-531 Scientific Calculator, *the only calculator allowed for tests and the final exam.*

4. Course Content and Other Course Information

Course Content

Topic	Chapter
Introduction to Data	1
Probability	2
Distributions of Random Variables	3
Foundations for Inference	4
Inferences for Numerical Data	5
Inferences for Categorical Data	6
Introduction to Linear Regression	7

iClickers

We will be using the i>Clickers in lectures. i>Clicker is a response system that allows you to respond to questions posed by instructors during class, and you will be graded on your participation and performance. Clickers will be provided in class. You will be assigned with a specific iClicker and you will be responsible for returning the clicker to the instructor in each class.

Excel Labs

This course includes computer lab sessions designed to familiarize students with the use of a computer program to perform data analysis and the procedure of reporting data analysis results. Microsoft Excel with add-ins MegaStat will be used for this purpose. The lab tutorials which also contains lab assignments can be found on D2L/Content/Labs.

Homework: "*I hear and I forget. I see and I remember. I do and I understand.*" The homework for this course will include 1) Online WeBWorK assignments, 2) Hard copy written assignments, 3) Lab assignments, and 4) Suggested practice problems from the textbook which will have answers in the back of the book. *In order to get a full understanding of the course materials, which usually leads a good grade, it is necessary to complete all four sets of homework. It is essential to do homework after every class and to keep up consistently.* ***Cramming does not work for this course.***

Midterms and Reviews

There will be three midterms. Before each of the 3 tests, there will be a review session. You are encouraged to ask questions and to work together with peers during these review problem sessions. *You will benefit most from these review sessions if you have all notes reviewed, all homework completed and a summary sheet made before you attempt the practice problems.*

Attendance

*Attendance is required***.** Showing up to classes is the easiest and most important thing you can do to help you succeed the course. **5% of the course is assigned to iClicker participation**. **Keeping up is an essential part of any statistics course because 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 to speak to me.

Math Lab

You can get **free face-to-face tutoring** from our instructional assistant in the Math Lab **E224.** Lab hours are posted on the lab doors and on the webpage http://camosun.ca/services/help-centres/math.html. Visit the lab to find out what hours work for you best.

Desire2Learn (D2L)

This class has the assistance of D2L, an online course management system. All course related materials, such as slides, Lab materials, practice problem sets and their answers, grades, discussion forum and

announcements will be available on D2L. It is your responsibility to subscribe to the notifications on D2L or check it regularly.

5. Basis of Student Assessment (Weighting)

iClicker	5%
Assignments and Labs	15%
3 Tests	40%
Lab Final	10%
Cumulative Final Exam (3 hrs)	30%

Please refer to the **Course Calendar** for tentative tests dates and assignments due dates. **All tests must be written during the scheduled times. In the event that you missed a test due to a family emergency or illness, the weight of the test will be put on the final exam *if* the instructor is notified *before* the test. NO late assignments or labs will be accepted. Final examinations will be scheduled by the College and they will take place during December 11-19. You must be available to write the final examination at the scheduled time. Vacations or scheduled flights are not considered as emergencies.**

6. Grading System

Percentage grades will be converted to letter grades as follows:

A+	90 - 100	B+	77 - 79	C+	65 - 69	F	0- 49
A	85 - 89	B	73 - 76	C	60 - 64		
A-	80 - 84	B-	70 - 72	D	50 - 59		

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 E-1.5 at **camosun.ca** for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	***Description***
I	*Incomplete*: 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	*In progress*: A temporary grade assigned for courses that, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. *(For these courses a final grade will be assigned to either the 3rd course attempt or at the point of course completion.)*
CW	*Compulsory Withdrawal:* 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.

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 the College web site in the Policy Section.

8. Academic Integrity

The Department of Mathematics and Statistics prepared a handout named Student Guidelines for Academic Integrity to help you to interpret college policies involving student conduct, academic dishonesty, plagiarism, etc. It is your responsibility to become familiar with the contents of the document and the college policies it references.