CAMOSUN COLLEGE
School of Arts & Science
Department of Mathematics & Statistics

STAT-116-002
Elementary Statistics
Winter 2018

COURSE OUTLINE

The course description is available on the web @ http://camosun.ca/learn/calendar/current/web/stat.html

Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.

1. Instructor Information

(a)	**Instructor**	Susan Chen
(b)	**Office hours**	MWThF 10:30 – 11:20 AM
(c)	**Location**	E260
(d)	**Phone**	250-370-3497
(e)	**E-mail**	chen@camosun.bc.ca
(f)	**Website**	online.camosun.ca

2. Intended Learning Outcomes

Upon completion of this course a 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
   1) PDF textbook: OpenIntro Statistics 3e by David M Diez. Free download at https://www.openintro.org/stat/textbook.php. Hard copies are sold in the Camosun Bookstore at Lansdowne.
   2) *STAT 116 Excel Lab tutorial manuals*, available on D2L.

(b) Other
   A Sharp EL-531 Scientific Calculator, *the only calculator allowed for tests and the final exam.*

4. Course Content and Schedule

Lecture Wednesday Monday and Wednesday 12:30 - 2:20 PM in Y227
Labs Friday 2:30 – 3:20 PM in weeks 1, 3, 5, 7, 10, 11, and 13 in E115
Dates for tests and assignments can be found in the Course Calendar.

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

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 MyOpenMath assignments, 2) Written worksheet assignments, 3) Lab assignments, and 4) Suggested practice problems from the textbook which 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 the homework. It is essential to review the notes and do homework after every class and to keep up consistently. This course is cumulative, **cramming does not work.***

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 necessary. Showing up to classes is the easiest and most important thing you can do to help you succeed the course. 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 (Help Centre)
Math lab **E224** is staffed with instructional assistants available for **free face-to-face** help (no, they don't answer emails or phone calls). Lab hours are posted on the lab door and can be viewed at http://camosun.ca/services/help-centres/

Desire2Learn (D2L)
This class has the assistance of D2L, an online course management system. All course related materials, including course calendar, notes, lab manuals and data sets, practice problem sets and answers, tests solutions, grades, 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)

(a) Assignments and Labs 20%
(b) Midterms 40%
(c) Final exam 30%
(d) Lab Final 10%

6. Grading System

| x | Standard Grading System (GPA) |

| | Competency Based Grading System |

7. Recommended Materials to Assist Students to Succeed Throughout the Course
1) Lecture videos come with the textbook https://www.openintro.org/stat/videos.php
2) The D2L page

8. College Supports, Services and Policies

Immediate, Urgent, or Emergency Support
If you or someone you know requires immediate, urgent, or emergency support (e.g. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @ http://camosun.ca/about/mental-health/emergency.html or http://camosun.ca/services/sexual-violence/get-support.html#urgent

College Services
Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at http://camosun.ca/

College Policies
Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available on the College website at http://camosun.ca/about/policies/. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course Withdrawals, Standards for Awarding Credentials, Involuntary Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.

A. **GRADING SYSTEMS** http://camosun.ca/about/policies/index.html

The following two grading systems are used at Camosun College:

1. Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

Grade	Description
COM	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

B. 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 http://camosun.ca/about/policies/index.html 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 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	*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.