COURSE OUTLINE		
TERM: Fall 2018	**COURSE NO:** BADM 210	
INSTRUCTOR:	**COURSE TITLE:** Business Statistics	
OFFICE: **LOCAL:** **E-MAIL:** @capilanou.ca	**SECTION NO(S):** All	**CREDITS:** 3
OFFICE HOURS:		
COURSE WEBSITE:		

Capilano University acknowledges with respect the Lil'wat, Musqueam, Squamish, Sechelt, and Tsleil-Waututh people on whose territories our campuses are located.

COURSE PREREQUISITE
None

COURSE FORMAT
Three hours of class time, plus an additional hour delivered through on-line or other activities for a 15-week semester, which includes two weeks for final exams.

CALENDAR DESCRIPTION
This course provides a strong foundation in basic business statistics. It covers some of the most commonly used methods for: converting raw data into meaningful information (Descriptive Statistics), computing the chance that a certain event will occur in the future (Probability), drawing conclusions about a population based on sample data (Inferential Statistics), and determining whether a relationship between two variables exist and, if so, how strong this relationship is (Simple Linear Regression and Correlation).

COURSE NOTE
BADM 210 is an approved Numeracy Course for Cap Core requirements.
BADM 210 is an approved Quantitative/Analytical course for baccalaureate degrees.

REQUIRED TEXT AND RESOURCES
Lind D., Marchal W., Wathen S., Waite C. (2015). *Basic Statistics for Business and Economics* (Fifth Canadian Edition). Toronto: McGraw-Hill.

Supplementary materials (or related links) will be posted on Moodle. The recommended calculator for the course is TI BA II Plus.

COURSE STUDENT LEARNING OUTCOMES
On successful completion of this course, students will be able to do the following:

1. Identify business situations appropriate for statistical modeling.
2. Summarize and present data in an informative way-using: quantitative forms (frequency tables, frequency distributions and stem-and leaf display), graphical representations (bar and pie charts, histograms and polygons) as well as symbolically and numerically (measures of central location, dispersion, and position).
3. Discuss the concepts using the accepted technical terminology.

4. Analyze business problems using probability theory for both, discrete and continuous probability distributions.
5. Construct confidence intervals and draw conclusions about the location of a population parameter.
6. Apply quantitative evidence to evaluate the validity of a statement using the hypothesis testing procedure.
7. Use correlation and simple linear regression models to analyse association between variables.
8. Convert solutions into practical recommendations.
9. Collaborate with other students in class to solve assigned problems.
10. Develop awareness of the statistical models' pitfalls and ethical issues in practical business applications.

Students who complete this Numeracy course will be able to do the following:
1. Apply both analytical and numerical skills to solve problems.
2. Summarize and analyze data in quantitative forms.
3. Interpret and draw conclusions from an analysis of quantitative data.
4. Represent quantitative information in a variety of forms (e.g. symbolically, visually, numerically, and verbally).
5. Incorporate quantitative evidence in support of an argument.

COURSE CONTENT:

Week	Topics
Week 1	Course Introduction, what is statistics, types of statistics, types of variables.
Week 2	Describing data: frequency distributions, graphic representation, stem-and-leaf displays.
	Describing Data: measures of central tendency.
Week 3	Describing Data: measures of dispersion.
	Describing Data: measures of position.
Week 4	Probability Concepts: approaches to probability and principles of counting.
Week 5	Probability Concepts: rules of addition and multiplication, contingency tables and tree diagrams.
	Discrete Probability Distributions: mean and std. deviation of a probability distribution, binomial probability distribution.
Week 6	Discrete Probability Distributions: binomial, hypergeometric and Poisson probability distributions.
Week 7	Continuous Probability Distributions: uniform distributions.
Week 8	Continuous Probability Distributions: normal distribution.
	Continuous Probability Distributions: normal approximation to the binomial distribution.
Week 9	Sampling Methods: reasons to sample, methods for random sampling.
	Sampling Methods: sampling distribution of the sample mean.
Week 10	Estimation & Confidence Intervals: std. deviation known.
Week 11	Estimation & Confidence Intervals: std. deviation unknown, C.I. for a proportion, finite-population correction factor, and sample size.

	One-Sample Test of Hypothesis: the five-step procedure, one- and two-tailed tests of significance.
Week 12	One-Sample Test of Hypothesis: p-value, std. deviation unknown, tests concerning proportions.
	Two-Sample Test of Hypothesis: independent samples and tests about proportions.
Week 13	Two-Sample Test of Hypothesis: pooled t-test and dependent samples.
	Linear Regression and Correlation: correlation and regression analyses.
Weeks 14-15	Final Exam Period

EVALUATION PROFILE

Quizzes	15%
Term Test 1	17%
Term Test 2	21%
Term Test 3	17%
Final Exam	30%
	100%

GRADING PROFILE

A+ = 90-100	B+ = 77-79	C+ = 67-69	D = 50-59
A = 85-89	B = 73-76	C = 63-66	F = 0-49
A- = 80-84	B- = 70-72	C- = 60-62	

Incomplete Grades
Grades of Incomplete "I" are assigned only in exceptional circumstances when a student requests extra time to complete their coursework. Such agreements are made only at the request of the student, who is responsible to determine from the instructor the outstanding requirements of the course.

Late Assignments
Assignments are due at the beginning of the class on the due date listed. If you anticipate handing in an assignment late, please consult with your instructor beforehand.

Missed Exams/Quizzes/Labs, etc.
Make-up exams, quizzes and/or tests are given at the discretion of the instructor. They are generally given only in medical emergencies or severe personal crises. Some missed labs or other activities may not be able to be accommodated. Please consult with your instructor.

Attendance
Students are expected to attend all classes and associated activities.

English Usage
Students are expected to proofread all written work for any grammatical, spelling and stylistic errors. Instructors may deduct marks for incorrect grammar and spelling in written assignments.

Electronic Devices
Students may use electronic devices during class for note-taking only, as specified by the instructor.

On-line Communication
Outside of the classroom, instructors will (if necessary) communicate with students using either their official Capilano University email or Moodle; please check both regularly. Official communication between Capilano University and students is delivered to students' Capilano University email addresses only.

UNIVERSITY OPERATIONAL DETAILS

Tools for Success
Many services are available to support student success for Capilano University students. A central navigation point for all services can be found at: http://www.capilanou.ca/services/

Capilano University Security: download the CapU Mobile Safety App

Policy Statement (S2009-06)
Capilano University has policies on Academic Appeals (including appeal of final grade), Student Conduct, Academic Integrity, Academic Probation and other educational issues. These and other policies are available on the University website.

Academic Integrity (S2017-05)
Any instance of academic dishonesty or breach of the standards of academic integrity is serious and students will be held accountable for their actions, whether acting alone or in a group. See policy S2017-05 for more information: http://www.capilanou.ca/about/governance/policies/Policies/

Violations of academic integrity, including dishonesty in assignments, examinations, or other academic performances, are prohibited and will be handled in accordance with the Student Academic Integrity Procedures.

Academic dishonesty is any act that breaches one or more of the principles of academic integrity. Acts of academic dishonesty may include but are not limited to the following types:

Cheating: Using or providing unauthorized aids, assistance or materials while preparing or completing assessments, or when completing practical work (in clinical, practicum, or lab settings), including but not limited to the following:
- Copying or attempting to copy the work of another during an assessment;
- Communicating work to another student during an examination;
- Using unauthorized aids, notes, or electronic devices or means during an examination;
- Unauthorized possession of an assessment or answer key; and/or,
- Submitting of a substantially similar assessment by two or more students, except in the case where such submission is specifically authorized by the instructor.

Fraud: Creation or use of falsified documents.

Misuse or misrepresentation of sources: Presenting source material in such a way as to distort its original purpose or implication(s); misattributing words, ideas, etc. to someone other than the original

source; misrepresenting or manipulating research findings or data; and/or suppressing aspects of findings or data in order to present conclusions in a light other than the research, taken as a whole, would support.

Plagiarism: Presenting or submitting, as one's own work, the research, words, ideas, artistic imagery, arguments, calculations, illustrations, or diagrams of another person or persons without explicit or accurate citation or credit.

Self-Plagiarism: Submitting one's own work for credit in more than one course without the permission of the instructors, or re-submitting work, in whole or in part, for which credit has already been granted without permission of the instructors.

Prohibited Conduct: The following are examples of other conduct specifically prohibited:
- Taking unauthorized possession of the work of another student (for example, intercepting and removing such work from a photocopier or printer, or collecting the graded work of another student from a stack of papers);
- Falsifying one's own and/or other students' attendance in a course;
- Impersonating or allowing the impersonation of an individual;
- Modifying a graded assessment then submitting it for re-grading; or,
- Assisting or attempting to assist another person to commit any breach of academic integrity.

Sexual Violence and Misconduct
All Members of the University Community have the right to work, teach and study in an environment that is free from all forms of sexual violence and misconduct. Policy B401 defines sexual assault as follows:

> Sexual assault is any form of sexual contact that occurs without ongoing and freely given consent, including the threat of sexual contact without consent. Sexual assault can be committed by a stranger, someone known to the survivor or an intimate partner.

Safety and security at the University are a priority and any form of sexual violence and misconduct will not be tolerated or condoned. The University expects all Students and Members of the University Community to abide by all laws and University policies, including B.401 Sexual Violence and Misconduct Policy and B.401.1 Sexual Violence and Misconduct Procedure.

Emergencies: Students are expected to familiarise themselves with the emergency policies where appropriate and the emergency procedures posted on the wall of the classroom.