

CAPILANO UNIVERSITY			
COURSE OUTLINE			
TERM:	FALL 2017	COURSE NO:	PSYCHOLOGY 213
INSTRUCTOR:	TBA	COURSE NAME: STATISTICAL METHODS IN PSYCHOLOGY	
OFFICE:	LOCAL:	SECTION NO(S):	CREDITS: 3
E-MAIL:			
OFFICE HOURS:			

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.

COURSE PREREQUISITES:

PSYC 100 and PSYC 101; and MATH 097 (C) or MATH 123 (C) or MATH 091 (C+) or BMTH 043 (C+) or MATH 096 (C-) or BMTH 044 (C-) or BMTH 048 (C) or Precalculus 11 (C) or Principles of Math 11 (C) or Foundations of Math 11 (C) or Applications of Math 11 (C) or Applications of Math 12 (pass).

NOTE: This is an approved Quantitative/Analytical course for baccalaureate degrees.

RECOMMENDED FOLLOW-UP COURSE:

Psychology 212.

COURSE DESCRIPTION: This course deals with descriptive and inferential statistics as applied in psychology. These will be considered as they are used in psychological research.

COURSE LEARNING OBJECTIVES:

At the completion of this course, successful students will be able to:

- 1) Determine which descriptive and inferential statistics are appropriate to use for solving basic problems in statistics as applied to psychological research
- 2) Describe a data set using three measures of central tendency and two measures of variability
- 3) Test hypotheses comparing samples and populations using the appropriate test statistics from the following list : z test; t test for one sample; t test for two independent samples; t test for two related samples; ANOVA for one factor; ANOVA for two factors; ANOVA for repeated measures; Tukey's HSD for post-hoc tests; Pearson correlation; Spearman correlation; chi square for goodness of fit; chi square for independence; F-max for homogeneity of variance; confidence intervals
- 4) Calculate appropriate measures of effect size
- 5) Report the results of descriptive and inferential statistical procedures using correct notation

REQUIRED TEXT: Gravetter, F.J., & L.B. Wallnau. (2014). *Essentials of statistics for the behavioral sciences*, 8th ed. Belmont, CA: Wadsworth.

COURSE CONTENT:

Week	Content	Chapter(s)
1	Introduction	1
2	Frequency and Graphs	2
3	Central Tendency	3
4	Variability	4
5	Descriptive z-Scores	5
6	Hypothesis Testing	7, 8
7	t-Tests	9
8	More t-Tests	10, 11
9	One-Way ANOVA	12

10	Two-Way ANOVA	13
11	Repeated-Measures ANOVA	13
12	Correlations	14
13	Chi-Square Analyses	15
14-15	FINAL EXAM PERIOD	

Fourth Hour Activities: Each week there will be an optional 1-hour tutorial: Time to be announced. The focus of tutorials will be to review any material covered to date and to review returned assignments. This will not be time to work on assignments not yet submitted.

EVALUATION PROFILE:

Assignments (6)	35%
First In-Class Test	15%
Second In-Class Test	20%
Final	<u>30%</u>
	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%	

ASSIGNMENTS:

This course is designed to develop an understanding of and the applications of basic statistical concepts in Psychology. There will be 6 assignments that require computation and interpretation of the statistical concepts. All assignments are due **BEFORE** the lecture begins. Any assignments submitted once lecture has begun may be considered late and will be penalized 20%. Assignments submitted after the beginning of the following lecture will not be accepted.

The content of assignments is cumulative. The purpose of the assignments is not simply to “number crunch” but to develop an understanding of which statistical approach is best to summarize and interpret a given set of data. Assignments will also serve to develop an understanding of how psychologists present statistical information in the “results” section of research articles.

There will also be two tests and the final exam and these will consist of multiple choice, true/false and computations.

Calculators: The use of programmable calculators **will not** be allowed in any test which is part of the grading profile.

OPERATIONAL DETAILS:

Capilano University has policies on Academic Appeals (including appeal of final grade), Student Conduct, Cheating and Plagiarism, Academic Probation and other educational issues. These and other policies are available on the University website.

Attendance: Students are responsible for all announcements made in class and for all material on the course outline.

Missed Exams: Missing an examination is a serious matter, and make-up exams will only be allowed in exceptional circumstances. Documentation will be required (e.g. a medical certificate). In any case, students should notify the instructor beforehand. A penalty of up to 20% may be levied on make-up exams when granted.

Late Assignments: Late assignments, beyond that noted above, will be accepted only with prior consultation with the instructor and only for serious reasons. *Late assignments will be penalized 20%* nonetheless and late assignments are not accepted if not discussed with the instructor previously.

Submission for waiver of any penalty may be presented in writing, with appropriate documentation, to the Chair of the Psychology Department.

Incomplete Grades: Incomplete grades will be given only in exceptional circumstances and require prior consultation with the instructor.

Cheating and Plagiarism:

The Psychology Department adheres to the definition of cheating and plagiarism found on line at: <https://capilanou.ca/current/policies/Cheating-and-Plagiarism-Policy/>. Cheating and plagiarism may result in a grade of zero, either for the assignment or the entire course.

Electronic Devices: No personal electronic devices (cell phones, electronic dictionaries, etc...) may be used during an examination without prior approval from the instructor. During an exam, turn off all cell phones and pagers and remove them from the desk.

Confidentiality: The Psychology Department adheres to professional standards of ethics and confidentiality. Personal information that students give to an instructor would not normally be shared with anyone outside the Department without the student's authorization. However, there are a few exceptional circumstances in which an instructor may be required by law to disclose information about students, e.g. if there is an indication that a minor (under the age of 19) is being abused sexually or physically, or neglected; or, disclosure of information is made necessary for legal proceedings; and certain other circumstances about which students may inquire.

Emergency Procedures: Please read the emergency procedures posted on the wall of the classroom.

Participation: The success of the class depends upon students' active participation and working through calculation in class. If students are absent from class, it is the student's responsibility to find out what was covered, whether any announcements were made, etc. Class participation is not graded directly, but will affect students' performance on tests, assignments and the exam; in other words, the more you participate, the higher your final grade is likely to be.

PLEASE NOTE: persistent talking to others or non-involved behaviour (not working on in-class equations, cell phone ringing, texting during class, laptop use that is not class relevant, such as checking e-mail, Facebook etc.) will not be tolerated and could result in a request to leave the classroom.