

COURSE OUTLINE		
<b>TERM: Fall 2020</b>	<b>COURSE NO: PSYC 213</b>	
<b>INSTRUCTOR:</b>	<b>COURSE TITLE: Statistical Methods in Psychology</b>	
<b>OFFICE: LOCAL:</b> <b>E-MAIL: @capilanou.ca</b>	<b>SECTION NO(S):</b>	<b>CREDITS: 3</b>
<b>OFFICE HOURS:</b>		
<b>COURSE WEBSITE:</b>		

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

### **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)

### **CALENDAR 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 NOTE**

PSYC 213 is an approved Numeracy course for Cap Core requirements.

PSYC 213 is an approved Quantitative/Analytical course for baccalaureate degrees.

PSYC 213 is an approved Science course.

### **REQUIRED TEXTS AND/OR RESOURCES**

Gravetter, F. J., & Wallnau, I. B. (2014). *Essentials of statistics for the behavioral sciences* (8<sup>th</sup> ed). Belmont, CA: Wadsworth.

Additional readings may be required by some instructors.

**COURSE STUDENT LEARNING OUTCOMES**

**On successful completion of this course, students will be able to do the following:**

- Develop a working knowledge of descriptive and inferential statistics, and how they may be used to address basic problems in statistics as applied to psychological research.
- Describe applications of measures of central tendency and variability.
- Develop a working knowledge of: hypothesis testing comparing samples and populations using the following statistics: 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; Cohen's D, Tukey's HSD for post-hoc tests; Pearson correlation; chi square; and describe measures of effect size.
- Demonstrate effective writing for reporting the results of descriptive and inferential statistical procedures using the correct notation.

**Students who complete this Numeracy course will be able to do the following:**

- Apply both analytical and numerical skills to solve problems.
- Summarize and analyze data in quantitative forms.
- Interpret and draw conclusions from an analysis of quantitative data.
- Represent quantitative information in a variety of forms (e.g. symbolically, visually, numerically, and verbally).
- Incorporate quantitative evidence in support of an argument.

**COURSE CONTENT**

<b>Date</b>	<b>Topic</b>	<b>Readings</b>
<b>Week 1</b>	Introduction	Gravetter & Wallnau, Chapter 1
<b>Week 2</b>	Frequency and Graphs	Gravetter & Wallnau, Chapter 2
<b>Week 3</b>	Central Tendency	Gravetter & Wallnau, Chapter 3
<b>Week 4</b>	Variability	Gravetter & Wallnau, Chapter 4
<b>Week 5</b>	Descriptive z-Scores	Gravetter & Wallnau, Chapter 5
<b>Week 6</b>	Hypothesis Testing	Gravetter & Wallnau, Chapter Chapters 7 & 8
<b>Week 7</b>	t-Tests	Gravetter & Wallnau, Chapter 9
<b>Week 8</b>	More t-Tests	Gravetter & Wallnau, Chapters 10 & 11
<b>Week 9</b>	One-Way ANOVA	Gravetter & Wallnau, Chapter 12
<b>Week 10</b>	Two-Way ANOVA	Gravetter & Wallnau, Chapter 13
<b>Week 11</b>	Repeated-Measures ANOVA	Gravetter & Wallnau, Chapter 13
<b>Week 12</b>	Correlations	Gravetter & Wallnau, Chapter 14
<b>Week 13</b>	Chi-Square Analyses	Gravetter & Wallnau, Chapter 15
<b>Weeks 14/15</b>	FINAL EXAMINATION HELD IN EXAM PERIOD	

All assigned chapters are required and will be examined, regardless of whether the material in them is covered in class.

**EVALUATION PROFILE**

Written Assignments	20-40%*
Examinations/Quizzes/Presentations	25-60%*
Final Examination	20-35%
Total	100%

\*Note: No single evaluation component will be worth more than 35%.

**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**

Unless otherwise specified, 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, in medical emergencies or severe personal crises, with prior notice, and appropriate documentation. Some missed labs or other activities may not be able to be accommodated. Please consult with your instructor.

**Attendance**

Students are expected to maintain regular class attendance. Students are responsible for all announcements made in class, online to students' my.capilanou.ca email account or course website, and for all material on the course syllabus. Although instructors may discuss only portions of a chapter in class, students are responsible for studying all of each chapter listed in the course syllabus. Appropriate university behaviour is expected (see the University Calendar).

**English Usage**

University level writing skills are required in all assignments. American Psychological Association (APA) writing guidelines, including the use of respectful language, must be followed. All assignments must be original and must be used for this course only. 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**

The use of personal technology is permitted in the classroom for note-taking purposes only, and if it is not distracting to others. During an exam, all personal technology must be turned off and removed from the desk. The use of programmable calculators will not be allowed in any test which is part of the grading profile.

### **On-line Communication**

Outside of the classroom, instructors will (if necessary) communicate with students using either their official Capilano University email or through the eLearn course site; 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: <https://www.capilanou.ca/student-life/>

**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, Cheating and Plagiarism, 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 and procedures S2017-05 Academic Integrity for more information: <https://www.capilanou.ca/about-capu/governance/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 (found on Policy page <https://www.capilanou.ca/about-capu/governance/policies/>)

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