Statistics for the Behavioral Sciences

Anthropology 215: 2058, 2059 Psychology 215: 4218, 4219 Sociology 215: 4296, 4297

Fall 2020 ERT

Instructor: Sky Chafin, Ph.D. sky.chafin@gcccd.edu

Office Hours: Monday 1:00-2:00 PM

Wednesday 1:00-3:00 PM

Office hours will be held via ConferZoom.

Individual, private appointments are 20 minutes. You can sign up for an appointment on Canvas. Please book at least 24 hours in advance.

Zoom: Monday 2:00-3:50 PM

This is an opportunity for students to get together with each other and the instructor in order to ask questions, get support, and stay connected. If you cannot attend, a recording will be made available. Click here for access or see the announcement on

Canvas. The password is 0215.

Text (*not* required): *Essentials of Statistics for the Behavioral Sciences*, 10th Edition, Gravetter, Wallnau, Forzano, and Witnauer

You will need a calculator with basic functions (add, subtract, multiply, divide, and square root).

Course Description: Methods and experience in defining and solving quantitative problems in the behavioral sciences. Emphasis is on the design of experiments and the application of a variety of parametric and nonparametric techniques to the analysis of data. Successful mastery of basic computer data analysis skills using SPSS for Windows©, the Statistical Package for the Social Sciences, is a requirement of this course. The design of this course assumes the student has received a minimum grade of "C" or better in Mathematics 103 or 110 or equivalent. Successful completion of this course carries transfer credit to San Diego State University for both PSY 280 and PSY 281.

Student Learning Outcomes: Upon successful completion of this course, students will have the skills to:

- Demonstrate understanding of why statistics is used and what the limitations of statistical inference are.
- Analyze representative data from the behavioral sciences using a variety of statistical techniques.
- Apply statistical considerations to experimental design.
- Interpret the results of statistical analyses in writing using APA format.
- Use SPSS for the analysis of quantitative data.

Class Format: This class will be ALL online, using CANVAS. There will be NO assignments or meetings on campus.

Online Support: Please use the resources for online learning here. If you have technical questions or issues, please call the Instructional Computing Services help desk at (619) 644-7742.

Attendance: Attendance is based upon your regular completion of assignments. Students who fail to log in and actively participate in the class for one week or more may be dropped from the class.

It is your responsibility to add, drop, or withdraw on or before the deadlines stated in the class schedule.

Classroom Decorum and Student Responsibilities: Your questions, ideas, and insights are welcomed and encouraged. However, students are expected to respect the values, beliefs, and rights of others in the classroom. You are expected to abide by the Grossmont College student code of conduct and may not interfere with other students' opportunities to learn. Violations will be referred to the appropriate authorities.

Academic Integrity: Don't be a cheater. In short, academic integrity means that your work is YOUR WORK and that you give credit to anything that is not your work. The penalty for cheating is 0 points for the assignment. The penalty for repeat offenses will be a referral to the Associate Dean of Student Affairs.

Accommodations for Students with Disabilities: Students with disabilities who may need accommodation in this class are encouraged to notify the instructor and contact the Accessibility Resource Center (ARC) early in the semester so that reasonable accommodations may be implemented as soon as possible. Students may contact ARC in person in Room 110 or by phone at (619) 644-7112 (voice) or (619) 644-7119 (TTY for deaf).

Supervised Tutoring Referral: Students are referred to enroll in the following supervised tutoring courses if the service indicated will assist them in achieving or reinforcing the learning objectives of this course:

IDS 198, Supervised Tutoring to receive tutoring in general computer applications in the LTRC; English 198W, Supervised Tutoring for assistance in the English Writing Center (70-119); and/or IDS 198T, Supervised Tutoring to receive one-on-one tutoring in academic subjects in the Tutoring Center (70-229, 644-7387).

Homework: Homework will be assigned each week. Homework is due on Mondays by 2:00 PM (due dates are on Canvas). Because I will go over the answers to the homework in our weekly Zoom meeting, *NO late homework will be accepted*. Each homework assignment will be worth 1% of your grade. Your lowest score will be dropped.

It is also to your benefit to work problems from the book --- the answers to the odd-numbered questions are in the back of the book.

Examinations: There will be 4 exams. The first will be worth 10% of your grade, the second will be worth 15%, the third will be worth 20%, and the fourth (the final) will be worth 25%. The final will be cumulative --- you will be responsible for material from the entire course.

There are two reasons for having the first exam worth less than the second, the second exam worth less than the third, and so on. First, statistics builds upon itself. While neither the second nor third exams will be cumulative, you will need to understand material from the first exam in order to answer questions on the second, and understand material from the first and second exams in order to answer questions on the third. Second, since the first exam is worth the least, you will have an opportunity to become familiar with the testing format, without risking a large percentage of your grade.

If you do better on the final than you did on one of the previous exams (excluding the SPSS exam), your score on the final will replace your lowest score. If you do not take an exam, this option will go into effect, unless PRIOR arrangements have been made.

The remaining 15% of your grade will be determined by your mastery of basic computer data analysis skills using SPSS for Windows©, the Statistical Package for the Social Sciences.

Grading: Plus/minus grades will be assigned.

5% Class Participation

10% Homework

10% Exam I

15% Exam II

20% Exam III

15% SPSS

25% Final

Please do not request special favors regarding your grade. I realize that being only a few points away from a letter grade change seems arbitrary, and perhaps unnecessarily harsh. However, I don't make special, private deals with individual students. If I give even one point to one student to improve his or her grade, I must (logically and morally) give the same one point to all students. If I added a point, then the next student who is "one point away" would have a similar complaint.

Schedule: This is a tentative schedule and is subject to revision depending on class progress and needs. *Specific due dates are on Canvas.*

Week	Topic	Chapter(s)	
M 8/17	Terms, Tables, and Graphs	1 and 2	
M 8/24	Measures of Central Tendency and Variabili	ity 3 and 4	
M 8/31	Exam I (10%)		
M 9/7	Z Scores and the Normal Distribution	5 and 6	
M 9/14	Distribution of Sample Means	7	
M 9/21	Hypothesis Testing	8	
M 9/28	Type I and Type II Errors and Power	8	
M 10/5	Exam II (15%)		
M 10/12	Single Sample t Test	9	
M 10/19	Dependent Samples t Test	11	
M 10/26	Independent Samples t Test	10	
M 11/2	Exam III (20%)		
M 11/9	ANOVA	12 and 13	
M 11/16	Correlation and Regression	14	
M 11/23	Chi-Square	15	
M 11/30	SPSS (15%)		
M 12/7	Review		
M 12/14 1:45 - 3:45	FINAL (25%)		