Statistics for the Behavioral Sciences
Anthropology 215: 2058, 2059
Psychology 215: 4218, 4219
Sociology 215: 4296, 4297
Fall 2019

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(619) 644-7719

Office Hours: Monday   1:00-2:00 PM and 4:00-5:00 PM
Tuesday   12:30-2:00 PM
Thursday   12:30-2:00 PM

Text: *Essentials of Statistics for the Behavioral Sciences*, 9th Edition, Gravetter and Wallnau

PowerPoint slides, homework assignments, and other course information can be found on Canvas (https://gcccd.instructure.com).

You will also 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.

Attendance and Participation: Attending class regularly will lead to a better understanding of the course material. When absences equal the number of hours that a class meets a week, the instructor may drop the student from the class. Tardiness or leaving early may be treated in the same manner as absences. No absence relieves the student of the responsibility of completing class assignments. **If you are absent, it is your responsibility to find out what happened in class by asking another student.**

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.

Homework: Homework will be assigned and posted online each week. Homework is due at the START of the next class meeting, unless otherwise indicated. Each homework assignment will be worth 1% of your grade. Your lowest score will be dropped. NO late homework will be accepted.

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.**

You will need scantron **26760** for each exam (excluding the SPSS exam).

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. To practice with SPSS, you can use the SPSS software on the CSIS computers (use the same login as in lab) in the Tech Mall (http://www.grossmont.edu/techmall).

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.

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.

All electronic devices capable of recording, transmitting or receiving information by voice, text, image or any other format are to be turned off while the class is in session. Any use of such electronic devices during examinations will be treated as a violation of Education Code Section 78907.

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).

Schedule: This is a tentative schedule and is subject to revision depending on class progress and needs.

Day	Topic	Chapter(s)
M 8/19	Introduction and Terms	1
T 8/20, R 8/22	Frequency Distributions and Graphs	2
M 8/26	Measures of Central Tendency and Variability	3 and 4
T 8/27, R 8/29		
M 9/2	HOLIDAY	
T 9/3, R 9/5	Review	

Day	Topic	Chapter(s)
M 9/9 T 9/10, R 9/12	**Exam I** (10%) Normal Distribution	 5 and 6
M 9/16 T 9/17, R 9/19	Sampling Distribution Hypothesis Testing	7 8
M 9/23 T 9/24, R 9/26	Hypothesis Testing Type I and Type II Errors	8
M 9/30 T 10/1, R 10/3	Review **Exam II** (15%)	
M 10/7 T 10/8, R 10/10	Single Sample and Dependent Sample t Tests	9 and 11
M 10/14 T 10/15, R 10/17	Independent Samples t Test SPSS	10
M 10/21 T 10/22, R 10/24	Review **Exam III** (20%)	
M 10/28 T 10/29, R 10/31	ANOVA SPSS	12 and 13
M 11/4 T 11/5, R 11/7	Chi-Square SPSS	15
M 11/11 T 11/12, R 11/14	HOLIDAY SPSS	
M 11/18 T 11/19, R 11/21	Correlation SPSS	14
M 11/25 T 11/26, R 11/28	Regression SPSS	14
M 12/2 T 12/3, R 12/5	Review **SPSS** (15%)	
M 12/9	Review	
M 12/16 1:45 - 3:45	**FINAL** (25%)	