PSYC-2317-101CL
Statistical Methods
Spring 2023
Monday/Wednesday 11:00a – 12:20a

Instructor Information

Name: Douglas A. Alvarez, M.A.
E-mail: DAlvarez6@com.edu
Phone: (409) 933-8435

Student hours and location

Monday: 10:00am – 11:00am
Tuesday: 9:30am – 11:00am
Wednesday: 9:30am – 11:00am
Thursday: 9:30am – 11:00am
Friday: Online by appointment or email
Weekends: By email

Office Location

Social and Behavioral Sciences Department, LRC Bldg., Suite A Room 228

Required Textbook

eTextbook: Introduction to Statistics in the Psychological Sciences by Linda R. Cote, Ph.D., Rupa Gordon, Ph.D., Chrislyn E. Randell, Ph.D., Judy Schmitt, and Helena Marvin

This textbook can be downloaded for FREE at https://irl.umsl.edu/oer/25/

Additional Resource (Optional)

Textbook: Fundamental Statistics for the Behavioral Sciences. 9th Edition, by David C. Howell, published by Cengage Learning.

Course Description

This course covers descriptive and inferential statistics used in psychological research and assessment. It includes measurement, characteristics of distributions; measures of central tendency and variability; transformed scores; correlation and regression; probability theory; and hypotheses testing and inference. (PSYC 2317 is included in the Psychology Field of Study.) Prerequisite: PSYC 2301 with a grade of "C" or better. Prerequisite: MATH 1314 with a grade of "C" or better. Prerequisites: TSIA2 945-990 ELAR/CRC test AND 5 or higher on Essay OR 910-944 on CRC with 5-6 on Diagnostic Test + 5 or higher on Essay, or IRW 0320 with a grade of "C" or better. This is an academic transfer course.

Determination of Course Grade

Class Discussions and Attendance (50pts):

Because class discussion and in-class exercises are critical to the learning process, they will count as a portion of your final grade. PLEASE BE ON TIME FOR CLASS. Attendance will be taken within the first 10 minutes of class, anyone showing up to class after attendance has been taken will be considered absent. This not only provides for an opportunity to participate in class discussion, but also provides a relatively easy way for students to earn points toward a higher grade.

Homework (50pts):

Homework problems will be assigned and will count for 50 points of your final grade. It is often the case that you will discover a part of the material that you need clarified as a result of doing the homework. Students are **STRONGLY ENCOURAGED** to do all homework, and extra problems for practice. Be aware that it is unlikely to learn the material without working problems outside of class. In addition, extra credit will occasionally be given for a "good faith" attempt to solve extra homework problems.

Chapter Homework will be assigned throughout the semester and all students must complete the homework by the scheduled date. There are **NO Make-ups**. **Homework must be completed by the scheduled due date.** Any student who does not complete the homework by the assigned date will be given a **ZERO** on the Chapter Homework. There is **NO Make-up Homework**.

There is a definite relationship between your final grade average and your investment in homework!!

Chapter Quizzes (100pts):

12 Quizzes worth 10 points each will be assigned throughout the semester and will cover textbook, lecture, videos, class demonstrations, and handouts. All Chapter Quizzes will be administered in class. All students must complete the quizzes on the scheduled date. There are **NO Make-up Quizzes**.

I will **DROP YOUR 2 LOWEST Chapter Quizzes**.

Exams (100pts/Exam):
There will be a total of 4 Exams (3 semester and 1 Final), with each exam counting for 100 points of your final grade. Exams will be broken down into sections containing between 2 and 4 chapters, and may include a combination of true/false, multiple choice, matching, and/or short answer questions.

Exams will be open notes and will focus primarily on problem-solving. However, the exams may contain multiple choice, true/false, matching and short answer questions.

Exams will be administered during class and students will be allowed the full class time to complete the exam. All students must complete the exams on the scheduled date. There are **NO Make-up Exams**.

More information and detailed instructions about the online exams will be provided at the start of each exam.

Extra Credit (Optional):
Extra Credit opportunities may be provided throughout the semester for students to earn points toward a higher grade. All extra credit must be approved by the instructor and turned in prior to Exam 3.

<div align="center">

Detailed Grading Formula

</div>

Grading Breakdown	
Coursework	**Points**
CLASS DISCUSSION & ATTENDANCE	50
HOMEWORK	50
CHAPTER QUIZZES	100
EXAM 1	100
EXAM 2	100
EXAM 3	100
EXAM 4	100
TOTAL POSSIBLE	600

Attendance	
Absences	**Points Deducted**
0	- 0
1	- 5
2	- 10
3	- 15
4	- 30
5	- 40
6 OR MORE	- 100

Grading Computation	
Letter Grade	**Points**
A	540 +
B	480 – 539
C	420 – 479
D	360 – 419
F	359 OR LESS

Make-Up Policy
Failure to complete an assignment: All assignments will be due by the date assigned by the professor. NO LATE ASSIGNMENTS WILL BE ACCEPTED.

Attendance Policy:
Because class discussion, in-class exercises, and out of class work are critical to the learning process, attendance will count towards your final grade and consist of attendance to classes and classroom participation.

PLEASE BE ON TIME FOR CLASS. Attendance will be taken within the **FIRST 10 MINUTES** of class, anyone showing up to class after attendance has been taken WILL be considered absent. On time attendance not only provides for an opportunity to participate in class discussion, but also provides a relatively easy way for students to earn points toward a higher grade. **No distinction will be made between excused vs. unexcused absences**.

Communicating with your instructor

ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means.

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Compute and interpret empirical and theoretical probabilities.	Empirical and Quantitative Critical Thinking	Class discussion, Class work, Homework, Quizzes and Exams
2. Define and explain the characteristics of data based on their reliability, validity, and scales of measurement.	Empirical and Quantitative Critical Thinking	Class discussion, Class work, Homework, Quizzes and Exams
3. Interpret visual representations of data, such as graphs and tables.	Empirical and Quantitative Critical Thinking	Class discussion, Class work, Homework, Quizzes and Exams
4. Compute and interpret descriptive statistics, such as mean, median, and mode; standard deviation and range; and transformed scores.	Empirical and Quantitative Critical Thinking	Class discussion, Class work, Homework, Quizzes and Exams
5. Compute and interpret inferential statistics and tests, such as z test, t test, ANOVA, and Chi-Square.	Empirical and Quantitative Critical Thinking	Class discussion, Class work, Homework, Quizzes and Exams
6. Calculate, evaluate, and interpret simple linear correlation/regression.	Empirical and Quantitative Critical Thinking	Class discussion, Class work, Homework, Quizzes and Exams
7. Construct and interpret confidence intervals.	Empirical and Quantitative Critical Thinking	Class discussion, Class work, Homework, Quizzes and Exams
8. Examine, analyze, and compare various sampling distributions.	Empirical and Quantitative Critical Thinking	Class discussion, Class work, Homework, Quizzes and Exams

9. Formulate, perform, and interpret hypotheses tests.	Empirical and Quantitative Critical Thinking	Class discussion, Class work, Homework, Quizzes and Exams
10. Identify the appropriate statistical analyses for given research problems, questions, hypotheses, and data sets.	Empirical and Quantitative Critical Thinking	Class discussion, Class work, Homework, Quizzes and Exams
11. Apply statistical knowledge to the interpretation of psychological research.	Empirical and Quantitative Critical Thinking	Class discussion, Class work, Homework, Quizzes and Exams
12. Explain features and purpose of statistical software packages.	Empirical and Quantitative Critical Thinking	Class discussion, Class work, Homework, Quizzes and Exams

Academic Dishonesty:
Any incident of academic policy will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a **grade of zero** on that exam and the student will be referred to the Office of Student Conduct for the appropriate discipline action.

Plagiarism: Plagiarism is using someone else's words or ideas and claiming them as your own. Plagiarism is a very serious offense. Plagiarism includes paraphrasing someone else's words without giving proper citation, copying directly from a website and pasting it into your paper, using someone else's words without quotation marks. Any assignment containing any plagiarized material will receive a **grade of zero** and the student will be referred to the Office of Student Conduct for the appropriate discipline action.

> **Link(s) to resource(s) about avoiding plagiarism:**
> https://owl.english.purdue.edu/owl/resource/589/02/ http://www.com.edu/on-site-services/speaking-reading-writing-center.php
>
> **http://en.writecheck.com/ways-to-avoid-plagiarism/**

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Department Chair Shinya Wakao at (409) 933-8107.

	Date	Mon	Wed
		Tentative Course Outline (Subject to Change)	
Week 1	1/17	**NO CLASS** **Martin Luther King Jr. Day**	Course Expectations and Syllabus Chapter 1: Introduction
Week 2	1/23	Chapter 1: Introduction **Chapter 1 HW and Quiz (Due Sunday)**	Chapter 2: Describing Data using Distributions and Graphs
Week 3	1/30	Chapter 2: Describing Data using Distributions and Graphs **Chapter 2 HW and Quiz (Due Sunday)**	Chapter 3: Measures of Central Tendency and Spread
Week 4	2/6	Chapter 3: Measures of Central Tendency and Spread **Chapter 3 HW and Quiz (Due Sunday)**	**EXAM 1** **Chapters 1, 2 & 3**
Week 5	2/13	Chapter 4: z-scores and the Standard Normal Distribution	Chapter 4: z-scores and the Standard Normal Distribution **Chapter 4 HW and Quiz (Due Sunday)**
Week 6	2/20	Chapter 5: Probability	Chapter 5: Probability **Chapter 5 HW and Quiz (Due Sunday)**
Week 7	2/27	Chapter 6: Sampling Distributions	Chapter 6: Sampling Distributions Chapter 7: Introduction to Hypothesis Testing
Week 8	3/6	Chapter 7: Introduction to Hypothesis Testing **Chapter 6 and 7 HW and Quiz (Due Sunday**	**EXAM 2** **Chapters 4, 5, 6 & 7**
3/13		**SPRING BREAK**	
Week 9	3/20	Chapter 8: Introduction to t tests	Chapter 8: Introduction to t tests **Chapter 8 HW and Quiz**
Week 10	3/27	Chapter 9: Related Samples	Chapter 9: Related Samples **Chapter 9 HW and Quiz (Due Sunday)**
Week 11	4/3	Chapter 10: Independent Samples	Chapter 10: Independent Samples **Chapter 10 HW and Quiz (Due Sunday)**
Week 12	4/10	Chapter 11: Analysis of Variance	Chapter 11: Analysis of Variance **Chapter 11 HW and Quiz (Due Sunday)**
Week 13	4/17	**EXAM 3** **Chapters 8, 9, 10 & 11**	Chapter 12: Correlations
Week 14	4/24	Chapter 12: Correlations Chapter 13: Linear Regression	Chapter 13: Linear Regression **Chapter 12 and 11 HW and Quiz (Due Sunday)**
Week 15	5/1	Chapter 14: Chi-square	Chapter 14: Chi-square **Chapter 14 HW and Quiz (Due Sunday)**
Week 16	5/8	**Final Exam**	**Final Exam**

If you wait until the last minute and Blackboard has an outage, your grade can be affected.

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook Student_Handbook_2022-2023_v4.pdf (com.edu). *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.*

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Kimberly Lachney at 409-933-8919 or klachney@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is March 1. The last date to withdraw from the 16-week session is April 24. The last date to withdraw for the 2nd 8-week session is May 3.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Resources to Help with Stress:

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here https://www.com.edu/community-resource-center/. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.