

COURSE SYLLABUS • LAMAR UNIVERSITY

Introduction to Statistics
Psychology 2317-03 (CRN 11077)
Fall 2017
MW 1:50 pm - 3:10 pm; SBS 100

CATALOG DESCRIPTION

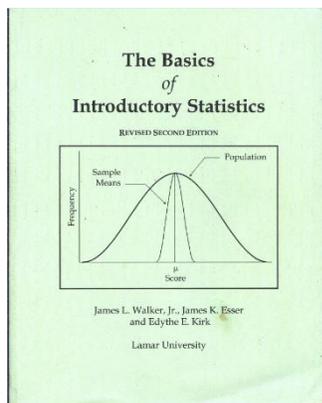
PSYC 2317 is a general but comprehensive introduction to the major types of statistical methods used in research. Statistics are the tools of researchers who seek to make sense of scientific data. This course will introduce you to measures of central tendency, variability, and position, correlation and regression, tests of significance, and non-parametric techniques. This course is an applied data analysis course and is highly quantitative in nature; therefore knowledge of algebraic principles is essential (see below). As such, this course falls under the Foundational Component Area of Mathematics. In this course, you will learn how to use critical thinking skills to select appropriate analyses for specific research questions, perform computational procedures necessary to analyze research data, and communicate the results of those analyses to an audience.

Prerequisite: MATH 1314 (College Algebra) or equivalent

INSTRUCTOR INFORMATION

Andy Garza, MS
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 Office hours: by appointment

REQUIRED TEXT



Walker, J.L., Esser, J.K. & Kirk, E.E. (2004). *The basics of introductory statistics* (Revised 2nd Ed.). Acton, MA: Copley.

Calculators: You will need a calculator for this course. Although nearly any calculator will perform the necessary mathematical operations needed for PSCY 2317, some calculators are easier to use than others are. An inexpensive calculator with statistical functions, e.g., Texas Instruments TI30 or TI36, is generally best. *Bring your calculator and textbook with you to lecture!*

CLASS OBJECTIVES

Students will:

1. Apply higher-order/critical thinking and statistical models to represent and solve real-world problems.
2. Represent and evaluate basic statistical information verbally, numerically, graphically, and symbolically.
3. Interpret research data with formulas, graphs, tables, draw inferences from the results, and communicate the conclusions.
4. Recognize the applications and limitations of statistical models.
5. Develop the view that statistics is an evolving discipline and understand its connection to other disciplines that engage in research, including the social, behavioral, and health sciences.

SYLLABUS POLICY

I will make every effort to follow the syllabus as printed. During the course of the Semester; minor adjustments may be necessary due to unforeseen circumstances. In such instances, I will give as much advance notification as possible. This syllabus is not a binding contract, but exists to give you a rough outline of the course and requirements.

NOTE: The professor reserves the right to make changes in the course, including additional readings or requirements, exam date changes, etc. Any changes will be announced in class and posted on Blackboard. **It is the student's responsibility to keep up with announced changes in the course.**

ATTENDANCE

Regular class attendance is expected of all students and attendance will be monitored. Regular class attendance is expected of all students. Students who are **absent** or **tardy** for a total of **3** times of the scheduled class meetings will incur a **decrease by one letter grade** to their final grade for the course. You will be **counted as absent** unless prior notice and arrangements have been made with the instructor. Anyone that misses 25% or more will fail and be assigned an F regardless of total grade. Each student is accountable for all work missed because of absence, however, students who are absent **may not** be able to complete activities outside of class. Instructors are under no obligation to make special arrangements for students who have been absent. Should an absence from class be unavoidable, the student is encouraged to obtain lecture notes from a classmate. Lecture notes will not be provided by the course instructor. Attendance data will be reported to the Financial Aid Department in accordance with state and federal laws. *I will also call randomly from the class roll for participation as part of your grade. You are responsible for all material covered in class and in the text.*

EXAM ATTENDANCE

Each exam will consist of objective multiple-choice items as well as computational problems. Questions will come from both lecture material and textbook readings, which means that you may be tested over material not presented in class. The exams will be given in class on the days scheduled unless changes have been made by the instructor. Students cannot take the test **15 minutes** after the test has begun. **NO MAKE-UP EXAMS WILL BE GIVEN UNDER ANY CIRCUMSTANCES! Students who miss two exams will earn an F for the course. The final is mandatory and CANNOT be dropped!!!** In the event that a student misses exam 1 or exam 2 (for University excused absences), their score on the final exam will be used to replace the missing score (that is, the final exam score will be counted twice in the computation of the course grade) if a makeup is not scheduled. Note that a grade of "F" may be recorded for a student who is absent from the final exam and is not passing the course (Lamar University General Catalog). A student who will miss an exam due to a university

sponsored event has the responsibility to make arrangements to take the exam **prior** to his/her absence. If prior arrangements have not been made in a timely manner, the exam will be treated as a “missed” exam.

If you know that you will be absent the day of the test, we can schedule an exam no more than 1 day (24 hours) before the scheduled exam. At least 2 days of notice to the instructor is required.

Note. Quizzes may be either announced in advance or simply announced in class on the day of the quiz.

GRADING POLICY

Grades will be based on the total number of points earned out of the total available as shown below.

(There may also be a maximum of 5 extra credit points available per test):

Homework	82 points
In-class Activities (10 activities, 5 points each)	50 points
Quizzes (8 quizzes, 5 points each)	40 points
Data Analysis Project	50 points
Critical Thinking Analyses (3@15)	45 points
Unit 1 Exam	100 points
Unit 2 Exam	100 points
Final Exam	100 points
<hr/> Total	<hr/> 567 Points
A	504-567 Points
B	448-505 Points
C	391-447 Points
D	334-390 Points
F	334< Points

ELECTRONICS/CELL PHONES/PAGERS

Students are to turn off all electronic communication devices and music players (cell phones, laptops, tablets, pagers, MP3 players, etc.) during class time. **Students may not wear headphones, send text messages etc. during class time.** Backpacks and purses must be placed on the floor and phones tucked away in them and **not out on the desks.** Cell phones cannot be used as a calculator! **Infraction of this rule can result in class dismissal for the day which counts as an absence and a zero on classwork.**

ACADEMIC INTEGRITY

Every Lamar student is responsible for upholding the provisions of the student handbook. The University policy on academic honesty includes provisions regarding plagiarism and cheating, unauthorized access to University materials; misrepresentation/falsification of University records or academic work; malicious removal, retention, or destruction of library materials; malicious/ intentional misuse of computer facilities and/or services; and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the university’s established procedures. (My interpretation: **Don’t cheat**)

RESEARCH CREDITS

Research credits are **required** by the Psychology Department and **are not points** added to your grade. We don’t usually know the final required number until a couple of weeks into the semester and will be announced in class and stipulated on Sona-Systems. You may earn these credits by participating in research projects being conducted by faculty and students in the psychology department **OR** by evaluating and summarizing research articles from a

psychological research journal (i.e., NOT *Psychology Today* and similar magazines). Written instructions for setting up a research account and completing and documenting your research credits will be provided, as will instructions for completing research reports. **The deadline for receiving research reports and for completing research projects is DECEMBER 4th. If not received by this date an “I” will be assigned as the grade for the semester.**

Completion of research credits is a requirement for completion of this course. You will not receive credit for the course until you complete and document research credits by the appropriate deadline. If you complete credits by the following semester, the “I” will be changed to reflect your course grade minus 1 letter grade. If you do not earn the research credits by the end of the next semester, the “I” will automatically become an F for the course. Research reports that are not in appropriate form, or not from an appropriate journal will not receive credit. Research reports that are plagiarized will not receive credit and will be penalized accordingly.

DISRUPTION OF CAMPUS LIFE STATEMENT

It is the purpose of the institution to provide a campus environment that encourages academic accomplishment, personal growth, and a spirit of understanding and cooperation. An important part of maintaining such an environment is the commitment to protect the health and safety of every member of the campus community. Belligerent, abusive, profane, threatening, and/or inappropriate behavior on the part of students is a violation of the Lamar University Student Conduct Regulations. Students who are found guilty of such misconduct may be subject to immediate dismissal from the institution. In addition, these violations of state law may also be subject to criminal action beyond the University disciplinary process.

DRESS CODE

NO SUNGLASSES, prescription or otherwise will be worn in class.

DISABILITY STATEMENT

This course complies with all accommodations prescribed by the Lamar University Office of Services for Students with Disabilities. It is the responsibility of the student to ensure that the instructor has been informed of all prescribed accommodations.

WITHDRAWAL DATES

To withdraw from the class, you must **DROP** the course according to University procedures (not coming to class is NOT the same as dropping it). The last day to drop or withdraw from this class with full refund is **WEDNESDAY, SEPTEMBER 13**. The last day to drop or withdraw from this class without academic penalty even if failing is **FRIDAY, SEPTEMBER 29TH**. *Students who withdraw **after THIS DATE** will receive a Q only if currently passing the course (D or higher average)*. The last day to drop or withdraw with penalty is **THURSDAY, NOVEMBER 2ND**. All students enrolled in the class based on the Registrar’s records after **THIS DATE** will receive a final grade (A, B, C, D, or F) and cannot receive a Q from the instructor.

EMERGENCY INFORMATION

Emergency Preparedness

As we begin this semester, I want to take a few minutes and discuss emergency preparedness. Lamar is a very safe campus and there is a low probability that a serious incident will occur here.

However, we want to emphasize our emergency procedures for evacuation and shelter in place incidents. Our preparedness will be critical IF an unexpected event occurs!

Instructions for specific emergencies, such as severe weather, chemical release, active shooter, or fire can be found at: <http://www.lamar.edu/about-lu/administration/risk-management/index.html>

Here are some simple things you should do in the event an emergency occurs during our class.

- Always follow the directions of the instructor or emergency personnel
- If told to evacuate, do so immediately.
- If told to shelter-in-place, find a room, in the center of the building with few windows, on the lowest level of the building.
- If told to lockdown, lock and barricade the door if possible. Turn off the lights and wait for police to arrive.

Violence/Active Shooter (CADD):

- **CALL** - 8-3-1-1 from a campus phone (880-8311 from a cell phone). Note: Calling 9-1-1 from either a campus phone or cell phone will contact Beaumont City Police Dispatch rather than University Police.
- **AVOID**- If possible, self-evacuate to a safe area outside the building. Follow directions of police officers.
- **DENY**- Barricade the door with desks, chairs, bookcases or any other items. Move to a place inside the room where you are not visible. Turn off the lights and remain quiet. Remain there until told by police it is safe.
- **DEFEND**- Use chairs, desks, cell phones or whatever is immediately available to distract and/or defend yourself and others from attack.

Campus Closure (academic continuity plan):

In the event of campus closure and evacuation due to a hurricane or other disaster, this course will continue in an online format until campus reopens. After four days of closure (for evacuation and relocation), please login to course Psy 2317-01 on Blackboard for class instructions. Lamar will communicate through Blackboard, your email address, and the university webpage (www.Lamar.edu). These efforts will allow you to complete the course and semester on time.

COURSE SCHEDULE

We will cover the text in classroom lectures/discussion/demonstrations according to the schedule below. You are responsible for all material presented in class (we will cover non-text material on many days) and in the text (regardless of whether we cover it in class).

Month	Dates	Chapter	Topic
August	28	Class introduction	
		Chapter 1	Introduction, areas of statistics, scales of measurement
September	30, 6	Chapter 2	Frequency distributions and graphs
▶▶ September 4: Labor Day7 ◀◀			
	11, 13	Chapter 3	Characteristics of distributions: Central tendency
▶▶ September 13: last day to drop with full refund ◀◀			
	18, 20	Chapter 4	Characteristics of distributions: Variability
	25, 27	Chapter 5	The normal curve and standard (z) scores
▶▶ September 29: last day to drop without academic penalty ◀◀			
October	2	Chapter 6	Probability
▶▶ October 4: Exam 1 (Chaps. 1-6) ◀◀			
October	9, 11	Chapter 7	Correlation and measures of relationships
	16, 18	Chapter 8	Bivariate linear regression
	23, 25	Chapter 9	Forecasting error – standard error of estimate
November	30, 1	Chapter 10	Interpreting correlational data, (pp. 128-129) Spearman's rho,
▶▶ November 3: last day to withdraw with academic penalty ◀◀			
▶▶ November 6: Exam 2 (Chaps. 7-10) ◀◀			
November	8, 13	Chapter 11	Sampling theory (pp. 140-149)
	15, 20	Chapter 12	Confidence limits (pp. 151-155)
	22	Chapter 13 & 14	Hypothesis testing, t-tests
	27, 29	Chapter 15	One-way analysis of variance
December	4	Chapter 16	Chi square
▶▶ December 6: Comprehensive Final Exam 11:30am-1:30pm ◀◀			