Course Number: PSYC	Department: Behavioral	Title: Statistical Methods in
2317	Sciences	Psychology
Discipline: Psychology	Campuses: Levelland,	Satisfies Core Curriculum
	Reese	Requirement? Yes
Prerequisites: none	Credit: 3 Lecture: 3 Lab:	Available Formats: Face-to-face
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## Common Course Syllabus for PSYC 2317, Fall 2019

**Course Specific Instructions:** For face-to-face classes, each instructor will attach his/her course specific instructions.

**Textbook**: Privitera, G. (2018). <u>Essential Statistics for the Behavioral Sciences</u> (2nd ed.). Thousand Oaks, CA: SAGE Publications.

**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).

**Course Purpose**: To acquaint students with various statistical research methods used in psychology. In addition, explain how statistics are used to analyze data collected in psychological research, and how statistics contribute to hypothesis testing in psychological research.

**Course Requirements**: To maximize the potential to complete this course, students should attend all class meetings and/or login to internet courses at least twice weekly. In addition, satisfactorily complete all homework assignments and examinations on time, and satisfactorily complete all other projects or papers as assigned in the course instructions.

**Course Evaluation:** See instructor's course information sheet for specific items used in evaluating student performance.

**Student Learning Outcomes/Competencies:** Upon successful completion of this course, students will:

1. Compute and interpret empirical and theoretical probabilities.

2. Define and explain the characteristics of data based on their reliability, validity, and scales of measurement.

3. Interpret visual representations of data, such as graphs and tables.

4. Compute and interpret descriptive statistics, such as mean, median, and mode; standard deviation and range; and transformed scores.

5. Compute and interpret inferential statistics and tests, such as z test, t test, ANOVA, and Chi-Square.

- 6. Calculate, evaluate, and interpret simple linear correlation/regression.
- 7. Construct and interpret confidence intervals.
- 8. Examine, analyze, and compare various sampling distributions.

9. Formulate, perform, and interpret hypotheses tests.

10. Identify the appropriate statistical analyses for given research problems, questions, hypotheses, and data sets.

11. Apply statistical knowledge to the interpretation of psychological research.
12. Explain features and purpose of statistical software packages. CIP # 42.0101.52 25

#### Core Objectives addressed:

- Communication skills- effective written, oral and visual communication.
- **Critical thinking skills** creative thinking, innovation, inquiry & analysis, evaluation & synthesis of information.
- **Empirical and Quantitative skills**-the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
- **Social Responsibility** demonstrating intercultural knowledge and competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national and global communities.

Attendance Policy: Students are expected to attend all classes in order to be successful in a course. The student may be administratively withdrawn from the course when absences become excessive as defined in the course syllabus. When an unavoidable reason for class absence arises, such as illness, an official trip authorized by the college or an official activity, the instructor may permit the student to make up work missed. It is the student's responsibility to complete work missed within a reasonable period of time as determined by the instructor. Students are officially enrolled in all courses for which they pay tuition and fees at the time of registration. Should a student, for any reason, delay in reporting to a class after official enrollment, absences will be attributed to the student from the first class meeting. Students who enroll in a course but have "Never Attended" by the official census date, as reported by the faculty member, will be administratively dropped by the Office of Admissions and Records. A student who does not meet the attendance requirements of a class as stated in the course syllabus and does not officially withdraw from that course by the official census date of the semester, may be administratively withdrawn from that course and receive a grade of "X" or "F" as determined by the instructor. Instructors are responsible for clearly stating their administrative drop policy in the course syllabus, and it is the student's responsibility to be aware of that policy.

It is the student's responsibility to verify administrative drops for excessive absences through MySPC using his or her student online account. If it is determined that a student is awarded financial aid for a class or classes in which the student never attended or participated, the financial aid award will be adjusted in accordance with the classes in which the student did attend/participate and the student will owe any balance resulting from the adjustment.

**Student Conduct**: A high standard of conduct is expected of all students. Students are subject to federal, state and local laws, as well as South Plains College rules and regulations. Any student who fails to perform according to expected standards may be asked to withdraw. Failure to comply with lawful direction of a classroom teacher relative to maintaining good order is considered misconduct on the part of the student. Repeated violations of disrupting a class may result in the student being dropped from that course (See Catalog/Student Guide for full policy).

**Diversity & Equal Rights:** South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. All students are entitled to equal rights under the affirmative action and equal opportunity laws. Students are also

protected against unjust or biased academic evaluation, but at the same time, they are responsible for maintaining standards of academic performance established for each course in which they are enrolled (See Catalog/Student Guide for full definitions and policies). The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President of Student Affairs.

**ADA Statement:** Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland Student Health & Wellness Center 806-716-2529; Reese Center (Building 8) and Lubbock Center, 806-716-4675; or Plainview Center Main Office, 806-716-4302 or 806-296-9611.

**Title IX Pregnancy Accommodations Statement:** If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact Chris Straface, Director of Health and Wellness at 806-716-2362 or email <u>cstraface@southplainscollege.edu</u> for assistance.

Academic Integrity: The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a most serious offense and renders that offender liable to serious consequences, possibly suspension. <u>This</u> policy applies to all forms of cheating and plagiarism. See Instructor's Course Information for additions to the academic integrity policy.

**Campus Carry Policy:** The 84th Texas legislature passed Senate Bill 11, commonly known as the "campus carry" bill went into effect on August 1, 2017. Individuals holding a licensed to carry (LTC) or concealed handgun license (CHL) holders will have the legal right to carry a concealed handgun onto community college campuses; however, they **cannot** openly carry the handgun. South Plains College's detailed policy required by Senate Bill 11 can be found at this link: <u>Policy HHC - Concealed Carry of Handgun (Campus Carry)</u>. **What Concealed Carry Allows**: (1) The law permits only licensed to carry (LTC) holders or concealed handgun license (CHL) holders to carry concealed handguns on campuses. (2) Allows an institution to adopt rules or regulations that prohibit license holders from carrying concealed handguns on certain areas of campus, in a building or portion of a building as long as the rules and regulations do not have the effect of generally prohibiting a license holder from carrying a concealed handgun on campus. Effective notice must be provided with respect to any place where handguns may not be carried. What Concealed Carry Does Not Allow: (1) The law does <u>not</u> allow "open carry" on college campuses. Open carry means the intentional display of a handgun, including the carry of a partially or wholly visible handgun stored in a shoulder or belt holster. (2) The law does <u>not</u> allow the carry of rifles or shotguns on college campuses.

#### Course Specific Information PSYC 2317, section 001

Instructor:	Kristina M. Garrett, Ph.D.
Office Hours:	Mondays: 8:15-9:15am (Reese) and 3-3:45pm (Levelland)
	Tuesdays: 8:45-9:15am and 2:30-4:30pm (Levelland)
	Wednesdays: 8:15-9:15am (Reese) and 2-3:45pm (Levelland)
	Thursdays: 8:45-9:15am and 2:30-3pm (Levelland)
	Other days and times by appointment only
	Lab office hours: during my M/W afternoon office hours, I will be
	available from 3-3:30 in the TC 103 computer lab
Primary Office:	Reese Campus, Building 4, room 405-C
	[Levelland office hours will typically be held in AD 144]
Office Phone**:	806-716-4732
<u>E-Mail**</u> :	kgarrett@southplainscollege.edu

\*\* Please note: I prefer to be contacted by email rather than telephone. I have voicemail in my Reese office, but there are many times during the week when I can get back to you more quickly if you email me rather than call me.

## POLICIES AND IMPORTANT INFORMATION

**Student Responsibility**: It is your job, as a student, to know the rules of student conduct laid out in the Catalog and Student Guide, all other South Plains College policies which impact you laid out in the Catalog, and the policies laid out in this syllabus. It is also your job to check email, blackboard, and the calendar of due dates regularly to make sure that you are keeping up with your work. It is also your responsibility to ensure that all of your assignments are exclusively your own work (with credit given for information that comes from another source). Violations of Academic Integrity are serious offenses and within this course can result in penalties which range from receiving a zero (0) on that portion of the assignment to being dropped from the class with an F depending on the severity of the violation (one sentence vs. an entire assignment) and whether the student repeatedly violates these rules within this course. *Preparedness*: Part of your job as a student is to come to class prepared. It is expected that you will read the chapters that go with each topic before we begin that topic in class. It is also expected that you will arrive to class on-time, ready and able to take notes and participate in class.

**Classroom etiquette:** It is rude to be physically in class, but not engaged in the class and paying attention. It is a distraction to me and your classmates. I allow the use of computers <u>for taking</u> <u>notes only</u>, but reserve the right to restrict the use of computers or disallow the use of computers in the class if I observe inappropriate use of computers, including but not limited to: checking email, browsing the internet, checking Facebook, registering for classes, etc. Additional behaviors that are inappropriate include, but are not limited to: use of cell phones, reading the newspaper, reading material for other classes, talking while other people are speaking, sleeping in class, making offensive/bigoted remarks, and taking pictures of any portion of the class (remember your classmates have the same FERPA privacy rights as you do!). <u>It is not</u> <u>acceptable to take pictures of PowerPoint slides as a substitute for taking notes. You are not allowed to record class (voice or video) without my permission.</u>

**Course Specific Attendance Policy**: A student with 5 or more absences (not counting absences that I excuse) may be dropped, especially if: the absences follow a habitual pattern or are consecutive, the student does not contact me regarding absences, and/or the student stops completing course work. A student who is discussing their circumstances with me and making every effort to stay caught up will not be administratively dropped due to absences alone. When dropping due to absences, it is my policy to drop a student with an X, unless there are extenuating circumstances (e.g. cheating, etc.) that would lead me to drop a student with an F. In order for an absence to be excused, you must be able to provide independent documentation of an unavoidable situation outside of your control.

## **ASSIGNMENTS**

## 1. SPSS homeworks (60 points each; Total of 300 points)

We will be learning SPSS, a statistical software package, in this class. For each unit, there will be a homework assignment, which can usually be completed during the arranged lab time. Instructions for each SPSS homework will be given in class.

## 2. Exams (100 points each; Total of 400 points)

There will be four exams this semester. The fourth exam (final exam) counts the same as the first three. The final exam will focus on new material since exam four, but you should expect approximately 25% of the exam to be review of material from exams one through three. All exams may include a mix of any of the following types of questions: multiple choice, True/False, matching, fill in the blank, short answer/essay. The listing of exam dates is in the tentative schedule below. For all exams, you will be required to place all belongings at the front of the room, turn hats backwards or place hats at the front of the room, and you will not be permitted to have notes, cell phones, smart watches, or sunglasses at your desk. If you arrive late to an exam and any of your classmates have already finished the exam and left the room, you will not be permitted to take the exam. If you miss an exam and can document an excusable reason, then you will be permitted to take a make-up exam. You must take that make-up exam within one week of the original exam (or within one week of when you are able to return to school according to your documentation). Make-up final exams must be taken during the window of time set aside for final exams (May 4 through May 7) unless your documentation would allow you to get an incomplete in the class.

## 3. Final Presentation (100 points)

To assess comprehension of multiple concepts across the course and your ability to apply them on your own to diverse topics, you will choose any topic that interests you and design a mock research study. The emphasis is not on the research design itself, but on the statistical concepts (population, sample, power, measurement level, etc.). You will give a short presentation to your classmates addressing all the required concepts. Detailed instructions will be given in class and posted on Blackboard

## 4. Presentation based homeworks (50 points each; 200 points total)

To assist you in preparing your presentation, you will have 4 homework assignments where you will submit typed answers to a selection portion of the required concepts for the final presentation (e.g. your first one might ask about population and sample and later ones may ask

you to figure out which statistics are the most appropriate to use and why). You will receive feedback on these homeworks and be expected to incorporate that feedback into your final presentation.

#### Extra Credit

Extra credit is optional and therefore is not subject to the late work policy (i.e. the deadline listed below is a deadline, not a due date, and no extra credits will be accepted after the deadline). Extra credit is added directly to your final grade in the class and is your opportunity to improve your final grade in the class by up to a half letter grade. You may earn a maximum of 50 points of extra credit by doing approved extra credit activities, which can be found on the Blackboard page and may also be announced in class. Some extra credits will have a specific due date, while others will be accepted until Noon on Friday April 24. No extra credit will be accepted after Noon on Friday April 24.

#### **Final Grade Calculation**

Your f	inal grade will be determined as follow	S
SPSS homeworks		300 points
	Exams	400 points
	Final presentation	100 points
	Presentation based homeworks	200 points
Total		1000 points *

\*Please note that if a student opts to do extra credit, that student could earn up to 1050 points out of 1000 (or 105%).

Your letter grade will be based on the following percentages:

90% and above	А
80%-89%	В
70%-79%	С
60%-69%	D
<60%	F

Please note: if your final grade reflects a percentage that is not a whole number (e.g. 692 points is 69.2%), it is my policy to round up that percentage to the next whole number (e.g. 69.2%) rounds to 70%).

# **Tentative Schedule**

Please note that you are responsible for any schedule changes announced via Blackboard, SPC email, or announced verbally in class. Color Key <mark>Exams</mark> Holidays

Date	Торіс	Assignment due
1/14	Intro to Course	
Part I		
1/16	Ch. 1 Introduction to Statistics	
1/21	Ch. 2 Summarizing Data: Frequency Distributions in Tables and Graphs	Monday 1/20 – Martin Luther King Jr. Day, no office hours
1/23 - 1/28	Ch. 3 Summarizing Data: Central Tendency	
1/30 - 2/4	Ch. 4 Summarizing Data: Variability	
<mark>2/6</mark>	EXAM 1-Chapters 1-4	
Part II		
2/11 - 2/13	Ch. 5 Probability, Normal Distributions, and z Scores	
2/18	Ch. 6 Characteristics of the Sample Mean	
2/20-2/25	Ch. 7 Hypothesis Testing: Significance, Effect Size, and Power	2/27-2/29 Dr. Garrett is away at a conference, no classes or office hours
<mark>3/3</mark>	EXAM 2-Chapters 5-7	
Part III		
3/5 - 3/10	Ch. 8 Testing Means: One-Sample t Test With Confidence Intervals	
3/12 - 3/24	Ch. 9 Testing Means: Two- Independent-Sample t Test With Confidence Intervals	3/16-3/20 Spring Break, no classes or office hours, all campuses closed
3/12 - 3/24 3/26	Ch. 9 Testing Means: Two- Independent-Sample t Test With	
	Ch. 9 Testing Means: Two- Independent-Sample t Test With Confidence Intervals Ch. 10 Testing Means: Related- Samples t Test With Confidence	
3/26	Ch. 9 Testing Means: Two- Independent-Sample t Test With Confidence Intervals Ch. 10 Testing Means: Related- Samples t Test With Confidence Intervals	
3/26	Ch. 9 Testing Means: Two- Independent-Sample t Test With Confidence Intervals Ch. 10 Testing Means: Related- Samples t Test With Confidence Intervals	

Part V		
4/16 - 4/21	Ch. 13: Correlation and Linear	
	Regression	
4/23 - 4/28	Ch. 14: Chi-Square Tests: Goodness	
	of Fit and the Test for Independence	
4/30	Student presentations	
Tuesday	FINAL EXAM	Arrive at your <b>regular classroom at</b>
May 5,		the Final Exam time. Do not be late
10:15am-		to this exam!!
12:15pm		