

PSY 302.51E Psychological Statistics

COURSE SYLLABUS: Spring 2020

INSTRUCTOR INFORMATION

Instructor: Robert Lockamyeir, M.S. Office Location: BIN 208L Office Hours: By appointment University Email Address: rlockamyeir@leomail.tamuc.edu Preferred Form of Communication: E-mail Communication Response Time: Within 24 hours

COURSE INFORMATION

Textbook(s) Required:

Statistics for Psychology (6th ed.) Aron, A., Coups, E., & Aron, E. N. ISBN: 978 – 0205924174

Other Required Materials:

Calculator with square root and exponent functions. TI-30Xa is an example. **NO** phone calculators will be allowed.

Meeting Time:

Tuesdays: Lecture 4:30-7:10; Lab 7:20-8:20

Note: You must be enrolled in both the 3 credit hour lecture AND the 1 credit hour lab.

Course Description:

We will study the logic and methods of descriptive and inferential statistics and their relation to experimental design in psychology. Statistics plays an integral role in interpreting the results of research. You should exit this course knowing how and when to compute descriptive statistics (e.g., mean, variance, z-score), and, how and when to compute inferential statistics (e.g., t-tests, ANOVA) to test hypotheses.

COURSE REQUIREMENTS

Instructional Methods

Attendance is absolutely mandatory and critical if you want to succeed in this course. Each week will build upon previously learned material so you must attend class each and every week. If, for whatever reason, you are to miss a class, the student should let the professor know **BEFORE** class so any arrangements that are necessary can be made. Otherwise, get the notes from a fellow classmate and catch up on the week's material that you missed by reading the textbook. If you miss a week of class, this does not excuse you from turning in the homework that was due that day or the homework that is due the following week. If you are absent, you may turn in homework via email.

Student Responsibilities or Tips for Success in the Course

Questions about Grades

Any questions about a grade for a particular assignment or exam should be brought to the professor's attention within one week of the grades for that assignment or exam being posted.

Students are expected to:

- 1. Read the assigned material, which includes following the numeric examples closely and writing down questions about anything not entirely clear to you. Reading statistics requires close study and re-reading, not just reading through once as you might an ordinary book.
- 2. Completing the assigned homework problems (and turning them in on time). Statistics is a skill, and it is necessary to DO statistics, not just read and understand. Practice is critical to understanding thoroughly.
- 3. Attending ALL lectures, listening closely, asking questions; being sure to have done the reading first. DO NOT fall behind! Each chapter builds upon knowledge previously learned.
- 4. Studying for, taking, and reviewing answers for exams.
- 5. It is very important to treat this course like any other you would take. It is not a "math" class, however there is math involved. Understanding *why* you are doing each calculation, instead of just *how* to get to the answer, will make things much easier.

GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%720 - 800 pointsB = 80%-89%640 - 719 pointsC = 70%-79%560 - 639 pointsD = 60%-69%480 - 559 pointsF = 59% or Below0 - 479 points

Assessments

HOMEWORK ASSIGNMENTS (20 points each; 200 points total)

There will be 10 homework assignments during the semester. These assignments are designed to increase your understanding of the topics being covered and give you the opportunity to apply course material. All homework assignments come from the end of each chapter (Set II) of the textbook.

- 1. Assignments should be hand written *neatly*, with all pages stapled together. If I cannot read it, I cannot grade it.
- 2. **Show your work** when working a problem involving formulas. At minimum, you should show each complete formula in its basic form filled in with numbers, at least one intermediate step, and the final answer. If no work is provided, no points will be rewarded.
- 3. *ABSOLUTELY NO LATE ASSIGNMENTS* will be accepted. If you are going to miss class, I will accept emailed assignments. Assignments sent through email must be received on the day of class or else it becomes late.
- 4. Homework assignments are intended to be completed individually. Working with other people will not advance your knowledge of this material. You will only benefit from practicing these problems on your own.
- 5. Homework assignments will be graded as follows:
 - a. Each homework assignment is worth 20 points.
 - b. Late assignments or assignments with no work will earn 0 points.

QUIZZES (20 points each; 100 points total)

It is helpful for you to **read the assigned chapters in the textbook**. To encourage that behavior, there will be **seven (7) in-class quizzes**. Quizzes will be given at the beginning of class on the specified dates on the schedule below. They will be short and should not take any longer than 10-15 minutes. This class is cumulative so these quizzes are designed to assess your knowledge of the previous week's material. **Two (2) of these quizzes will be dropped**. If you are to miss a class day in which there is a quiz, **that quiz will count as one of your dropped quizzes**.

EXAMS (Mid-semester exams: 100 points each; Final exam: 200 points; 500 points total) There will be three mid-semester exams and one final exam. *The final exam will be cumulative and include all previously covered material.* The questions will require not only recognition of concepts and correct answers, but will be designed to test comprehension and application of concepts as well. Material for the exams will be drawn from the text, and the lectures. There will be no make-up exams except as mandated by University policy for University-excused absences, religious holidays, and major illnesses. Students should contact the professor **prior** to the scheduled exam if possible, or within 24 hours of missing the exam due to accident or illness. **Students who can demonstrate a legitimate University-excused absence, religious holiday** or major illnesses are allowed to make up the exam.

RESEARCH PARTICIPATION

A goal of this class is to help you familiarize yourself with research methods. One way to obtain this goal is to have you participate in research studies. Participating in research studies contributes to students and faculty at A&M - Commerce, your understanding of how research is conducted, and human knowledge in general. For this course, participating in research will be extra credit. You will have the opportunity to earn up to 20 points depending on the amount of research you participate in. Each credit hour of research will be worth 5 extra credit points that will be added to your total pool of points. So, for example, if you participate in 4 credit hours of research, you will earn the full 20 extra points. For more information, please visit D2L and download the extra credit research participation document.

If you do not want to participate is research, there is an alternative extra credit assignment. The alternative assignment is a 1-2 page article summary. These must be written on empirical research articles from peer-reviewed journals (NOT a website or Psychology Today magazine). Each article summary is the equivalent of participating in 1 credit hour of research, and thus is worth 5 extra credit points. Again, the maximum amount of points you can earn is 20 so you can do up to four article summaries to obtain the maximum amount of extra credit points. You can do some research participation and some article summaries, but you cannot exceed 20 extra credit points.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements: <u>https://community.brightspace.com/s/article/Brightspace-Platform-Requirements</u>

LMS Browser Support: https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements: https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or <u>helpdesk@tamuc.edu</u>.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the

availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

Interaction with Instructor Statement

Email Policy

The instructor is available virtually by email. If you would like to schedule an appointment, the best way is to email. We can then set up a time to chat when it is convenient for you. Please allow 24 hours to receive a response on weekdays. If you email me and do not receive an email response within 48 hours, your email most likely was not received.

Assignment Feedback

All assignments will be promptly graded and returned to you within one week. It is important to review this feedback and to correct any errors that you made.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

If you are to miss an exam, you must let me know **BEFORE** the day of the exam so we can make the appropriate arrangements. You are allowed to make up missed exams, but **ONLY** if you plan with me ahead of time. If you miss an exam and do not contact be **BEFORE** the date it is scheduled to be taken, you will be given a 0 for this assessment.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the <u>Student Guidebook</u>. <u>http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.as</u>

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Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <u>https://www.britannica.com/topic/netiquette</u>

TAMUC Attendance

For more information about the attendance policy please visit the <u>Attendance</u> webpage and <u>Procedure 13.99.99.R0.01</u>. http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

 $\underline{http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13stude/nts/academic/13.99.99.R0.01.pdf}$

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13stude nts/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13stude nts/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library- Room 162 Phone (903) 886-5150 or (903) 886-5835 Fax (903) 468-8148 Email: <u>studentdisabilityservices@tamuc.edu</u> Website: <u>Office of Student Disability Resources and Services</u> http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the <u>Carrying Concealed Handguns On Campus</u> document and/or consult your event organizer.

Web url:

 $\label{eq:http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf$

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE OUTLINE / CALENDAR

- 1/14: Syllabus and introduction Chapter 1: Frequency tables and describing a distribution
- 1/21: Chapter 2: Central tendency and variability Homework 1 Due Quiz 1 (Chapter 1)
- 1/28: Chapter 3: Z scores, the normal curve, and probability Homework 2 Due Quiz 2 (Chapter 2)
- 2/4: EXAM 1 (Chapters 1-3) Homework 3 Due
- 2/11: Chapter 4: Introduction to hypothesis testing
- 2/18: Chapter 5: Hypothesis testing with means of samples Homework 4 Due Quiz 3 (Chapter 4)
- 2/25: Chapter 6: Decision error and effect size Homework 5 Due Quiz 4 (Chapter 5)
- 3/3: EXAM 2 (Chapters 4-6) Homework 6 Due
- 3/10: SPRING BREAK
- 3/17: Chapter 7: Introduction to *t* tests
- 3/24: Chapter 8: Independent means *t* tests Homework 7 Due Quiz 5 (Chapter 7)
- 3/31: EXAM 3 (Chapters 7-8) Homework 8 Due
- 4/7: NO CLASS
- 4/14: Chapter 9: One-way analysis of variance (ANOVA)
- 4/21: Chapter 10: Main effects and interactions Homework 9 Due Quiz 6 (Chapter 9)

4/28: Final Exam Review Homework 10 Due Quiz 7 (Chapter 10)

5/5: FINAL EXAM (Chapters 1-10)

HOMEWORK ASSIGNMENTS

Chapter 1: 11abc, 12a-f, 14abc, 16bcd

Chapter 2: 11a-e, 13a-e, 17abc

Chapter 3: 14a-g, 16a-j, 17a-e, 21ab

Chapter 4: 13abcd, 17a, 18a

Chapter 5: 14abcd, 19ab, 20ab, 21ab

Chapter 6: 13abc, 14a-e

Chapter 7: 14ab, 15ab, 17ab, 18ab

Chapter 8: 14abc, 15a-e, 17ab, 18ab

Chapter 9: 14a, 16aefghi

Chapter 10: 12abcd, 13abcd