



PSY 305.51E: Statistics and Research Design II

COURSE SYLLABUS: Spring 2024

INSTRUCTOR INFORMATION

Instructor: Leon King, MS, COTA

Office Location: Collin College Higher Education Center in McKinney

Office Hours: 3:30 – 4:30 on Thursdays prior to class or via Zoom by appointment

University Email Address: Leon.King@tamuc.edu

Preferred Form of Communication: E-mail

Communication Response Time: 24 hours Monday through Friday and within 48 hours on Weekends and holidays although I try my best to respond PROMPTLY to emails over the weekends as well.

Lab Instructor: Jacob Hemby

Office Location: Binnion 211

Office Hours: flexible - email for Zoom appointment

University Email Address: Jacob.Hemby@tamuc.edu

Preferred Form of Communication: email.

Communication Response Time: 24 – 48 hours

COURSE INFORMATION

Required Textbooks:

Gravetter, F. J., Wallnau, L. B., Forzano, L. A. B., & Witnauer, J. E. (2021). *Essentials of statistics for the behavioral sciences*. Cengage Learning.

ISBN: 987-0-357-36529-8

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Nestor, P. G., & Schutt, R. K. (2018). *Research methods in psychology: Investigating human behavior*. Sage Publications.
ISBN: 978-1-5443-2377-0

Course Description

This course is the second part of a two-part series on statistics and research methods. This course is intended to introduce you to the basic and most common methods of collecting psychological data. We will cover t-tests, ANOVA, and correlations. Special attention will be given to writing in the style of the American Psychological Association (APA).

The lab allows for additional time to discuss the materials covered in lecture and to work on applying what you have learned in lecture through developing a research paper. This research paper will be a hypothetical replication study. This project is also broken up into two semesters. This semester you will write a results and discussion section. Each week's lab will involve working on a particular portion of your research paper or doing an activity involving SPSS (a statistical analysis program). All of this will culminate in an APA style research paper.

Student Learning Outcomes

1. Learning to review the primary literature (improving library research skills, increasing familiarity with scientific writing, and reading journal articles)
2. Learning how research ideas are developed, including the formulation of testable hypotheses
3. Analysis of research results, including a basic understanding of descriptive statistics, probability, and percentiles
4. Produce a quality APA style report
5. Apply statistics and research design in solving real-world case studies and applied research application

COURSE REQUIREMENTS

Students must be able to use the learning management software D2L, MS Word, Excell, PowerPoint, locate articles through the online database located within the online library at TAMUC and be familiar with the use of Zoom.

Instructional Methods

The lecture portion of this class will be held in person (face-to-face), at the CHEC TAMU-C campus in McKinney, TX. Your lab portion of the class will take place through synchronous learning via ZOOM immediately following lecture. THIS LAB

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IS MANDATORY. Therefore, I strongly recommend that you remain at the CHEC location following the lecture portion of the class until the lab is complete. With that said, lectures will not be held on exam days therefore, if your lab instructor plans on having lab on exam days, you are welcome to join lab via ZOOM from home as you are not required to be at the CHEC location to sign into ZOOM.

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 grade being posted in D2L.

The following are helpful hints to be successful in this course:

1. Check and read class emails promptly for announcements, updates, clarifications, etc.
2. Take notes and participate in lectures, read the assigned parts of the textbook to check if your listening comprehension matches the textbook descriptions, and fill in the missing pieces.
3. Quiz yourself often. Can you define a concept in your own words? Can you answer 3 or 4 questions of the textbook practice questions correctly?
4. Review the materials on a regular basis. Consider setting aside 20-25 minutes every two days to quiz yourself and work on a few problems for each of the chapters covered in class to ensure that you can apply correct formulas and work the formulas correctly.
5. Complete lecture and lab assignments including exams by the due dates.

Ask questions as early as you can! Please feel free to contact me any time you have questions. I made a rule for myself, and I would like for you to follow it. If I spend an hour on something, and really give it my all, but I still can't get it, it's time to ask for help. Don't be afraid to ask for help! Don't just sit there getting frustrated!

Take notes: Take GOOD notes while you read. It is a good study habit to go over your notes at the end of each week, filling in the blanks from the supplemental video(s) and assignment. It is also a good idea to make friends on the course and get the phone numbers of a couple of people who you can share notes and study with.

Utilize D2L: All submission of graded material is to be completed in D2L. Email submission will not be accepted. Please take some time to familiarize yourself with the system and contact me or IT with questions in advance.

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GRADING

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

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

Assessments

Your final grade is weighted 80% lecture and 20% lab. However, to receive a C or better in the course, students MUST receive a grade of C or better in BOTH the lecture and lab sections. Students who receive less than a C in either the lecture or lab will receive either an automatic D in the course, or their earned course grade if lower than D.

The lab and lecture grades are further broken up into separate assignments. The contribution of each assignment to the corresponding category (lecture or lab). **An important note about grading here, Professor King has nothing to do with your lab assignments or lab grade, so please do not contact Professor King regarding any part of the lab components of this course. Likewise, Mr. Hemby has nothing to do with your lecture assignment or grade, so please do not contact Mr. Hemby about the lecture components of this course.**

Lecture

Exams (40%) – There will be a total of four exams in this class each worth 10% of the student's final grade. Each exam will cover about four chapters each and will be noncumulative, however it is worth noting that with statistics, the processes that you learn in one area moves with you to the next content area. For this reason, if a student is struggling with one topic, it is highly advised that the student seek help early as the content builds on itself rapidly. Exams will open starting at midnight on the day of class in which there is an exam and students will have until 11:59 that night to complete the exam. The student will have two chances on each exam with the highest exam counted in D2L. If a student elects to retake an exam, (on the same day, exam day, and ONLY on exam day, the student will only have to retake the questions he/she missed on the first attempt). Exams will be timed, and students will have 120 minutes on each attempt at their exam. For this reason, there will be no lectures on exam days! Your job on exam days is simply to take your time and do well on the exams! **There will be no makeup exams unless the instructor has**

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been notified and arrangements have been made in advance! There will be no after the fact make up exams.

Capstone Evidence-Based Practice (40%) – The Capstone Evidence-Based Practice project will be a semester long project in which students will work in groups. The project will aim to allow students to utilize the statistics learned in lectures and the research design/research skills learned in lab along with other psychology material learned from previous courses to solve a real-world application-based situation. This project will involve multiple steps which will lead to a formal presentation of the students' findings through both literature and statistics.

In Class Group Statistics Assignments (20%) – During class, students will be assigned randomly to groups each week, (learning communities). During these times, students will be assigned certain problems to solve and then write out and solve the problems for the class. As a class, we will re-work the problems and see if the group solved the problems correctly. If the group did not solve the problems correctly, as a class, we will guide the group towards the correct answer. **These will be your notes to study from and a set of problems for you to study at home.** You will scan these notes in with all group members' names on them and submit a copy to the instructor in D2L. **THESE ASSIGNMENTS ARE pass/fail. If a student does not attend class, that student will earn a zero for that week's assignment unless the student has an excused absence and informed the instructor in advance. IN THE LATTER CASE, the highest grade that can be earned is a 70 for that week's assignment. Each student is provided with one "get out jail free" pass, in other words, every student is allowed to miss lecture one time with no penalty in which I will drop a missed class attendance/in class assignment. This drop will be for either excused or unexcused absence.**

Lab

LA1: Graphs (15%) – For the graphing activity, students will submit their APA format graphs. These will be graded for accuracy.

LA2: Results Section (30%) – Students will submit the results section for their paper. These will be graded for accuracy.

LA3: Discussion Outline (15%) – Students will submit an outline for their discussion section. This assignment is graded pass/fail.

LA4: Final Paper (40%) – Students will submit their results and discussion sections, references, and all sections from their 302 papers. Any recommended edits to the previous sections should appear in this version.

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Guidelines for Homework and Lab Assignments:

1. Assignments are to be turned in by 11:30pm on the due date.
2. I will accept emailed assignments on an emergency basis only. Assignments sent by email must be received before 11:30pm on the due date.
3. **ABSOLUTELY NO LATE ASSIGNMENTS** will be accepted. If your assignment is more than 30 minutes late you will earn 0 points for that assignment.
4. Assignments are intended to be completed individually. **DO NOT WORK TOGETHER ON ASSIGNMENTS.**

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:

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

LMS Browser Support:

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

Zoom Video Conferencing Tool

https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu

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 helpdesk@tamuc.edu.

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.

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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

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

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 [Student Guidebook](#).

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:

<https://www.britannica.com/topic/netiquette>

Texas A&M University-Commerce acknowledges that there are legitimate uses of

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Artificial Intelligence, Chatbots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

13.99.99.R0.10 Graduate Student Academic Dishonesty

TAMUC Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/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](#)

[Undergraduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf>

[Graduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyFormold.pdf>

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<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

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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 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
Velma K. Waters Library Rm 162
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](#)

<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

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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 [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<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&MCommerce campuses. Report violations to the University Police Department at 903886-5868 or 9-1-1.

A&M-Commerce Supports Students 'Mental Health

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

COURSE OUTLINE / CALENDAR

Week:	Date:	Topic:	Readings:	Assignment:
1	1/7 - 1/13	Variability	Ch. 4, EOS	
2	1/14 - 1/20	Probability/Sampling	Ch. 7, EOS	

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3	1/21 - 1/27	Hypothesis Testing	Ch. 8, EOS	
4	1/28 - 2/3	Considering Correlation	Ch. 7, RMP	Client Profile/Lit Review
5	2/4 - 2/10	Test 1	No Readings	No Assignments
6	2/11 - 2/17	Introduction to T scores	Ch. 9, EOS	Journal Club Article
7	2/18 - 2/24	The t test for two samples	Ch. 10, EOS	Journal Club Article
8	2/25 - 3/2	The t test for two related samples, Experimental Design	Ch. 11, EOS, RMP, 9	Journal Club Article
9	3/3 - 3/9	Test 2	No Readings	No Assignments
10	3/10 - 3/16	Spring Break	No Readings	No Assignments
11	3/17 - 3/23	Introduction to ANOVA	Ch. 12, EOS	Journal Club Article
12	3/24 - 3/30	Two Factor ANOVA	Ch. 13, EOS	Journal Club Article
13	3/31 - 4/6	Compresson/Regression, Quasi-Expirmental Design	Ch. 14, EOS, Ch. 11, RMP	Journal Club Article
14	4/7 - 4/13	Test 3	No Readings	No Assignments
15	4/14 - 4/20	Search for Causality, Qualitative Design	Ch. 8, 14, RMP	Work on Research Analysis/Conclusion of capstone
16	4/21 - 4/27	Complex Research Design	Ch. 10, RMP	Rough draft of written capstone report and presentation due

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17	4/28 - 5/4	Test 4	No Readings	Make Corrections to Capstone
18	5/5 - 5/10	Present Capstone		

EOS = Essentials of Statistics RMP = Research Methods in Psychology

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