PSY 305-01E: Statistics and Research Design II – Fall 2024

TR: 11:00a – 12:15p
COURSE SYLLABUS
Location: Henderson Hall – 206

INSTRUCTOR INFORMATION

Instructor: Dr. Benton Pierce, Associate Professor
Office Location: 232 – Henderson Hall
Office Hours: Mondays, 1-4 pm: Thursdays, 2-4 pm, or by appointment
University Email Address: benton.pierce@tamuc.edu
Preferred Form of Communication: email
Communication Response Time: Within 48 hours
Lab Instructor: Baylee Malone
Office Location: None
Office Hours: TBD
University Email Address: bmalone11@leomail.tamuc.edu
Preferred Form of Communication: email
Communication Response Time: 48 hours excluding weekends

The *syllabus/schedule are subject to change.*

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required

Nestor & Schutt, *Research Methods in Psychology (3rd)*
ISBN: 978-1-544-32377-0

Hurlburt, *Comprehending Behavioral Statistics* (6th edition)
ISBN: 978-1-305-65297-2

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 analysis of variance (ANOVA), correlation, linear regression, and chi-square techniques. Special attention will be given to writing in the style of the American Psychological Association.

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 literature review and a methods and expected results section. Each week in 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

COURSE REQUIREMENTS

Instructional Methods
This course in person. Students are **REQUIRED** to attend all lecture and lab meetings. If you need to miss a meeting, let me know in advance. Late notice will be excused only with documentation.

Student Responsibilities or Tips for Success in the Course

Throughout our course, we will learn the basic principles of how to learn and put these principles into practice. The following are some basics.

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 with the textbook descriptions, and fill in the missing pieces.
3) Quiz yourself often. Can you define a concept in your own words?
4) Complete all lab assignments and all exams.

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 assignment. The contribution of each assignment to the corresponding category (lecture or lab) appears next to each item.

Lecture
Exams (60%) - There will be three exams given during the semester, plus a final exam that will be cumulative. The first three exams will be worth 12 points each (i.e., 36% of your lecture grade). The final will be worth 24 points (24% of your lecture grade). If you

need to miss an exam for any reason, let me know IN ADVANCE. If you miss an exam and do not let me know in advance, then you must have a documented excuse (e.g., a doctor's note) in order to take a make-up exam.

Homework (40%) – There will be SPSS activities turned in for a grade.
These assignments are designed to increase your understanding of how to interpret SPSS output and use that output to write an APA style results section. **Due dates for homework assignments are listed below on the schedule of topics.**

RESEARCH PARTICIPATION

As part of your course requirement, you will need to complete a total of **6** credit hours of research participation. **HOWEVER,** if you do not have any unexcused no-shows (i.e. you do not show up for a study) you will be required to complete only **4** credit hours. You are ***only allowed to complete 50% of your research credits via online studies***, the remaining credits need to be completed via laboratory studies.

Failure to complete the required number of credits will result in the reduction of your final grade by one letter grade. That is, if you have an "A" and do not complete the required credits, your final grade will be a "B."

You will be able to sign up for various studies through the SONA system. Instructions on how to do this will be provided in a separate handout. Studies are worth different amounts of credit depending upon how long it takes to complete the study. You may sign up for any combination of studies you wish as long as you complete the required number of credits.

A pre-screening questionnaire is required before participating in many of the studies. You may earn .5 credits by completing the pre-screening within the first two weeks of the semester.

The alternative to the research experiment participation will be to complete an original 2-page article summary for each credit hour. Instructions for completing the alternative research assignment will be distributed in class. If you choose to do the research alternative instead of the research experiments, the **article summaries will be due by 11:59 pm on Friday, December 13.**

Lab

Labs take place on Tuesdays or Thursdays depending on which section you are enrolled in. All lab assignments are due the following 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 paper. Any recommended edits to the previous sections should appear in this version.

Minimal Technical Skills Needed

Using the learning management system (D2L), searching the Internet for texts, using Library resources.

Instructional Methods

The primary teaching method for this course will be lecture peppered with class discussion and in-class activities designed to elucidate information from the text and lecture.

Student Responsibilities or Tips for Success in the Course

1) Check and read class emails promptly for announcements, updates, clarifications, etc.
2) Take notes as you listen to lectures, read the assigned parts of the textbook to check if your listening comprehension matches with 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 the Pomodoro technique. Set aside 20-25 minutes each time and study.

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

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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.

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

It is best to communicate with me via email (benton.pierce@tamuc.edu). I will respond to emails within 24-48 hours. Please do not re-send your email unless at least 48 hours have passed since your last email.

Counseling Center at A&M-Commerce

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 AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

There will be NO after the fact make-up examinations and late assignments will not be accepted (except in cases of military deployment). If you are traveling and representing the university (e.g., band members, athletes, etc.) you need to request accommodations BEFORE an exam is due, not after. Otherwise I drop the lowest exam score to account for potential emergencies.

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: Netiquette
http://www.albion.com/netiquette/corerules.html

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

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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

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.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
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 veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

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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&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 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**

AI use policy [Draft 2, May 25, 2023]

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

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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

Schedule (Tentative)

Date	**Topic**	**Chapter (pages)**
Aug. 27	Introductions and syllabus	
Aug. 29	Probability, central tendency, & variability (review)	Chapters 1-5 - Hurlburt
Sept. 3	Probability, central tendency, & variability (review) (cont.)	
Sept. 5	Review of Z-scores	Ch 6 - Hurlburt
Sept. 10	Review of Sampling Distributions and Central Limit Theorem	Ch 7 – Hurlburt **HW 1: Due 9-12**
Sept. 12	Review of Confidence Intervals	Ch 8 - Hurlburt
Sept. 17	Review of t-tests – One Sample & Two Independent Samples	Ch. 10 & 11 - Hurlburt
Sept. 19	Review of t-tests – Two Dependent Samples	Ch 12 – Hurlburt **HW 2: Due 9-19**
Sept. 24	**Exam 1**	All of the above
Sept. 26	Introduction to ANOVA	Ch 14 - Hurlburt
Oct. 1	Introduction to ANOVA (cont.)	
Oct. 3	ANOVA – Factorial Designs	Ch 15 - Hurlburt Ch 10 - Nestor
Oct. 8	ANOVA – Factorial Designs (cont.)	
Oct. 10	ANOVA – Factorial Designs (cont.)	
Oct. 15	ANOVA – Repeated Measures	Ch 15 – Hurlburt **HW 3: Due 10-15**
Oct. 17	No Class	

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Oct. 22	Review Day	
Oct. 24	**Exam 2**	**All since Exam 1**
Oct. 29	Correlation	Ch 16 - Hurlburt Ch 7 - Nestor
Oct. 31	Correlation (cont.)	
Nov. 5	Power and Effect Size	Ch 15 – Howell **HW 4: Due 11-5**
Nov. 7	Regression	Ch 17 - Hurlburt
Nov. 12	Regression (cont.)	
Nov. 14	To be announced	
Nov. 16	Chi-Square	Ch 18 - Hurlburt
Nov. 21	**No Class**	
Nov. 26	Quasi-Experimental Designs	Ch 11 - Nestor
Nov. 28	**Thanksgiving Holiday**	
Dec. 3	Review Day	
Dec. 5	**Exam 3**	**All since Exam 2**
Dec. 10	To be announced	
Dec. 12	To be announced	
To be announced	**Final Exam**	**All chapters**

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