PSY 302.01E

Statistics and Research Design I

COURSE SYLLABUS: Fall 2024
T/TH 11:00am – 12:15pm

INSTRUCTOR INFORMATION

Instructor: Mei Jiang, Ph.D.
Office Location: Henderson 205A
Office Hours: M/W 10-11am (Zoom), T/TH 1:45-3:45 (in person)
***In-person/Zoom meetings by appointment Changes to office hours announced on D2L
Email Address: mei.jiang@tamuc.edu
Preferred Form of Communication: Email
Communication Response Time: 24-48 hours on weekdays

Note. **Emails without proper salutations or not sent from LEOMAIL will NOT be responded to.**

Lab Instructor: Zane Brand
Office Location: Binnion 211
Office Hours: Mondays 9:00 - 11:00 am & Tuesdays 9:00 - 10:00 am in BIN 208
University Email Address: zane.brand@tamuc.edu
Preferred Form of Communication: email
Communication Response Time: 24 – 48 hours

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings
Textbook(s) Required:

The *syllabus/schedule are subject to change.*

- Nestor & Schutt, Research Methods in Psychology (3rd) ISBN: 9781544323770
- Howell, Fundamental Statistics for the behavioral sciences (9th) ISBN: 9781305652972

- Additional handouts will be distributed on D2L.

COURSE DESCRIPTION

This course is the first 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 ethics in research, the concepts of reliability, validity, generalizability, measurement, descriptive statistics, probability, z-scores, and the fundamentals of experimental design. 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 literature review and a methods and expected results section. Each week in lab will involve working on a particular portion of your research paper. 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

Minimal Technical Skills Needed
- Using the learning management system (D2L)
- Using word processing software (e.g., Microsoft Word)
- Using statistical software package and/or spreadsheet software (e.g., EXCEL)
- Using a calculator to complete simple statistical computations.

Instructional Methods

This is a face-to-face course that has been enhanced with D2L. Attendance is require for all lecture and lab meetings. You will also need to use D2L on a regular basis to complete assignments and access class materials. Please see

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the information below for accessing D2L.

Student Responsibilities and Tips for Success in the Course

Students are expected to invest six to nine hours per week into preparing for this course. To successfully complete the course, students should read the textbook and materials on D2L before class, attend each class, complete quizzes on time, and fully engage in any in-class activities that we may have. Reviewing the course material thoroughly is essential for preparing for the exams and assignments.

 The following are some basics.
1.   Check and read class emails promptly for announcements, updates, clarifications, etc.
2.   Take notes and participating 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? 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.
5.   Complete all lab assignments and all exams.

       Ask questions as early as you can! – The most important! Please feel free to contact me any time you have questions. I make 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 in the course and get the phone numbers of a couple of people who you can clarify notes with.

       Utilize D2L: All submission of graded material are 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.

GRADING

Final grades in this course will be based on the following

scale: A = 90%-100%
B = 80%-89%

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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, <u>students MUST receive a grade of C or better in BOTH the lecture and lab sections.</u> 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 (50%) - There will be three exams given during the semester, plus a final exam. These four exams will be weighted equally. 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.

Homework (40%) – There will be four brief homework assignments turned in for a grade.

These assignments are designed to increase your understanding of the topics being covered and give you the opportunity to apply course material. **Due dates for homework assignments are listed below on the schedule of topics.**

Participation (10%) - participation is expected in this course. Students will be required to submit Exit Tickets after each class when notified. The points will be distributed evenly between the total number of Exit Tickets we have in the semester.

Lab

LA 1: Pick a Topic (5%) – Students must pick one of the articles from the list. This assignment is graded pass/fail.

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LA 2: List of Five Articles (5%) – Students will submit a list of five articles relevant to the paper they are replicating. These articles will likely be the ones later included in your literature review. This assignment is graded pass/fail.

LA 3: Ethics Training (10%) – Students will complete the CITI ethics training. This assignment is graded pass/fail.

LA 4: Article Review Template (5%) – Students will read an article and complete the article review template. General feedback will be provided to help make sure you are on track.

LA 5: Summarize an Article (10%) – Students will summarize one of their articles and submit it for feedback. This assignment will help make sure you are summarizing and paraphrasing correctly before you go any further with your literature review. This assignment is graded pass/fail. General feedback will be provided to help make sure you are on track.

LA 6: Literature Review Outline (5%) – Students will submit an outline for their literature review. This assignment is graded pass/fail.

LA 7: Literature Review (20%) – Students will conduct a brief APA style literature review. This will later serve as the introduction to your paper. Your paper must include 6 or more references; all should be from reputable scholarly sources and all of your references must primarily contain reports of empirical research. Note that the article you are replicating is included in this number. No secondary sources may be included. Your paper must be double-spaced in MS Word with 12 pt. TNR font and 1" margins on all 4 sides. Your paper must be 5-7 pages long (this includes your title page and reference pages). Some feedback will be provided and you are expected to make changes to the introduction of your final paper accordingly.

LA 8: Hypotheses and Expected Results section (5%) – Students will write the hypotheses and expected results section as if this were a proposal.

LA 9: Operational Definitions and Data spreadsheet (5%) – Students will list and operationally define all variables in their study. They will also create a data spreadsheet that could be used for recording data for the experiment. The purpose of this exercise is to get students thinking about what the data should look like for their project. Students will write three lines of fictitious data to aid this process. This assignment is graded pass/fail.

LA 10: Participants Section (5%) – Students will write and submit a participants section for their study. This assignment is graded pass/fail. General feedback will be provided to help make sure you are on track.

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LA11: Methods Section (25%) – Students will submit their methods section, and all previous sections. Any recommended edits to the previous sections should appear in this version.

Guidelines for Homework and Lab Assignments:

1. Assignments are to be turned in by 11:59pm on the due date.
2. I will accept emailed assignments on an emergency basis only. Assignments sent through email must be received before 11:59pm 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.***

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 Texas A&M - Commerce, your understanding of how research is conducted, and human knowledge in general.

All students in this class are <u>required </u>to participate in the psychology department's participant pool <u>or</u> complete alternative assignments (see me for more information on alternative assignments).

Students must complete a total of <u>6</u> credits, and 3 or more of them have to be earned from participating in face-to-face experiments. However, if you complete your first 4 face-to-face credits without any "no-shows", you will receive 2 free punctual participant credits. This means you will only need to complete 4 credits in total.

When you first sign into the experiment management system (EMS) you will be asked to take a prescreen. The prescreen takes about 20 minutes to complete. If you complete the prescreen in the first two weeks of the semester you will receive ½ free experiment credit. This can be combined with later experiments that are worth ½ credit.

If you fail to complete this portion of the class your grade will be lowered by one full grade. In effect, if you have an 'A' in the class but fail to complete your research participation (either through participating in research studies, alternative assignments, or a mixture of both) your final grade in the class will be a 'B.'

More information about participating in research, such as how to log in to the EMS, is provided on D2L.

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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.

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

COMMUNICATION AND SUPPORT

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

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Technical Support

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

Interaction with Instructor Statement

I am here to support you. My office hours are listed on the top of the syllabus. If you would like to set up a Zoom meeting, please email me to schedule a time. Office hours are subject to change, and I will inform students via D2L if there are any changes. My normal email response time is 24 hours but may take up to 48 hours. If you do not hear back from me within 2 business days, please email me again in case I did not receive your message. Your assignments will be graded and returned to you within one week.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

EMAIL POLICY
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 both of us.

EMAIL GUIDELINES
In an attempt to provide a framework for professional communication, emails must contain the following:
- Subject Line: Course (e.g. PSY 301-01E); additional information if desired (e.g. Hypothesis testing)
- Address the Reader: Open with "Dr. Jiang…"
- Use good grammar and avoid acronyms (i.e., do not write like you text)
- Ask good questions; a good question is specific and shows me the effort you've made.
  - If asking for assistance with an issue, please list how you have attempted to remediate the issue prior to contacting me (these should probably include looking at the syllabus/ course rubrics/ D2L, contacting a colleague, and checking your textbook, etc.)
- Close with your name and CWID.
- Please send emails from your University LEOMAIL account.
- The instructor will NOT discuss grades over email. If you would like to discuss your grade, please make an appointment during office hours.

If you are reading this, email me a photo of your pet (or favorite animal) OR ask a good question based on the <u>above email guidelines </u>for 2 extra credit points (available up till the end of the first week (Sunday midnight ☺).

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COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

This class provides a **child-friendly environment**. Students are welcome to bring their child/family under the age of 18 to class when other arrangements are not available. No prior approval is required.

Exams will be posted on D2L and will be taken in-class unless otherwise specified. All assignments and exams must be submitted on time. The course calendar includes all of the dates and times these are due.

Plagiarism: Texas A&M University-Commerce views plagiarism as a serious offense. Plagiarism occurs when individuals take ideas and/or words from another source and claim these ideas as their own without giving credit to the original author(s). This can include copying words from an Internet website, reading an article and taking the authors ideas without giving them credit, or writing work that is remarkably similar to other written work (e.g., Changing words to synonyms is still plagiarism). If any written work contains ideas that are not your own, you need to give credit to the author(s) by including citations. Instructors are obligated to report instances of plagiarism to university officials. Please refer to the American Psychology Association (APA) manual for instructions on citing materials. When in doubt, ask me. Ignorance will not be tolerated as an excuse for plagiarism. Acts of plagiarism on any written assignment, including discussion postings, will result in severe consequences, including the possibility of receiving a zero in the course. Acts of plagiarism will be reported to the department head.

Scholarly Expectations: All works submitted for credit must be original works created by the scholar uniquely for the class. It is considered inappropriate and unethical to make duplicate submissions of a single work for credit in multiple classes, unless specifically requested by the instructor. Duplication may result in a zero on an assignment.

IMPORTANT:

AI: 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).

In this course, the use of such AI software for individual work or for the entire course is DISALLOWED. Students should be aware of such requirements

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and follow their instructors' guidelines. **I will be use AI-enabled Turnitin to check students' work throughout this semester.**

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

Late Work: Please submit all assignments on time. When an assignment is submitted past the deadline, a 2-point penalty will be imposed for each day that the assignment is submitted past the due date, up to 5 days. After which, the assignment will automatically be scored as a zero (i.e., no credit granted).

Please note that **computer issues will not be considered as an excuse for failing to complete the quizzes on time**. It is the student's responsibility to make sure that assignments are turned in on time. Therefore, do not wait until the very end to complete an assignment. This will help ensure that you turn in the assignment on time if you are having a technology issue (i.e., you can find another computer, call the Help Desk for support, etc.).

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as students' 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 can be found at https://www.tamuc.edu/student-code-of-conduct/.

 If you believe someone has engaged in behaviors that do not align with the Code of Student Conduct or you have other concerns, please visit the File a Report page at https://www.tamuc.edu/office-of-student-rights-and-responsibilities/concerns-incident-reporting/

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

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 student academic dishonesty policy
Undergraduate Academic Dishonesty 13.99.99.R0.03

Undergraduate student academic dishonesty policy
Undergraduate Student Academic Dishonesty Form

Graduate student academic dishonesty policy:
https://inside.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesProcedures/13students/graduate/13.99.99.R0.10.pdf

Graduate student academic dishonesty form:
https://inside.tamuc.edu/academics/graduateSchool/faculty/GraduateStudentAcademicDishonestyForm.pdf

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage.

Artificial Intelligence

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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.

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 Services
Velma K. Waters Library- Room 162
Phone (903) 886-5930
Fax (903) 468-8148
Email: StudentDisabilityServices@tamuc.edu
Website: http://inside.tamuc.edu/campuslife/campusServices/StudentDisabilityServices/default.aspx

Mental Health and Well-Being

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.

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**

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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 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

Counseling Center Services

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**

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Tentative Course Calendar

Week	Dates	SCHEDULE OF TOPICS AND EXAMS				
		Topic	*Assigned Readings*	*Assignment*	*Lab*	*Assignment*
1	27-Aug 29-Aug	Syllabus & Introductions Basics of Research Design	Nestor c1&2		Introduction and Finding a Topic	LA 1
2	3-Sep 5-Sep	Statistics Basics	Howell c2	*HW 1: Due Sept. 7th*	Finding Sources	LA 2
3	10-Sep 12-Sep	Ethics	Nestor c4		CITI Training Ch. 3 (Nestor)	LA 3
4	17-Sep 19-Sep	*Exam Review* **Exam 1**	Howell c4		How to Read Journal Articles	LA 4
5	24-Sep 26-Sep	Describing Data: Central Tendency Describing Data: Variability	Howell c5 Howell c6		APA Formatting and Plagiarism Ch. 16 (Nestor)	LA 5
6	1-Oct 3-Oct	Normal Distributions and *z* scores		*HW 2: Due Oct. 5th*	How to Write a Literature Review	
7	8-Oct 10-Oct	Exam Review **Exam 2**			How to write a Reference Page	LA 6
8	15-Oct 17-Oct	Probability & Sampling Distributions	Howell c7&8 Nestor c6	*HW 3: Due Oct. 27th*	Making an Outline	LA 7
9	22-Oct 24-Oct	Hypothesis Testing -One Sample	Howell c12		Write Paper	
10	29-Oct		Howell c12		Write Paper	

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	31-Oct	Hypothesis Testing -One Sample				
11	5-Nov	Exam Review		**HW 4: Due Nov. 7th**	Write Paper	LA 8
	7-Nov	*Exam 3*				
12	12-Nov	Measurement	Nestor c5		Operationally Define Measures	LA 9
	14-Nov	Correlation	Nestor c7 Howell c9			
13	19-Nov	Correlation	Nestor c8		Create Hypotheses and Expected Results	LA 10
	21-Nov					
14	26-Nov	Thanksgiving Break				
	28-Nov					
15	3-Dec	Experimental Design & Confounds	Nestor c9		Developing Methods	LA 11
	5-Dec					
16		Final Exam				

***Homework Assignments** (HW) and the **Exams** are due at 11:59pm on the date listed above.
***Final Exam** is due at 11:59pm on **Tuesday, December 10th**.
***Lab Assignments** (LA) are due on Sunday at 11:59pm of each week, with the exception of LA 11 that is due on the last day of class, a Friday.

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