



**PSY 302.01W Statistics and Research Design I**  
COURSE SYLLABUS: Summer I 2024

## **INSTRUCTOR INFORMATION**

**Instructor:** Maria A. Carlson, Ph.D.

**Office Location:** Binnion Hall room 205

**Office Hours:** By appointment only

**University Email Address:** maria.carlson@tamuc.edu

**Office Phone:** 903 – 886 – 5200

**Preferred Form of Communication:** email

**Communication Response Time:** 24 – 48 hrs

**Lab Instructor:** Bailey Ayers

**Office Location:** Binnion 218

**Office Hours:** By appointment only.

**University Email Address:** AyersBailey@tamuc.edu

**Preferred Form of Communication:** email

**Communication Response Time:** 24 – 48 hrs

## **COURSE INFORMATION**

### ***Materials – Textbooks, Readings, Supplementary Readings***

***Textbook(s) Required:***

Nestor & Schutt, Research Methods in Psychology (3rd) ISBN: 9781544323770

Howell, Fundamental Statistics for the behavioral sciences (9th) ISBN: 9781305652972

*The syllabus/schedule are subject to change.*

## ***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 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.

## **COURSE REQUIREMENTS**

### ***Minimal Technical Skills Needed***

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

### ***Instructional Methods***

This is an online course with a lab, which is not to be interpreted as self-paced. Rather, you are required to log on regularly (preferably every day) in order to succeed. You may consume the material at a more rapid pace than set by the below schedule, but assignments and exams will still take place according to the schedule. Exams will be open for 1-2 days, and if you are unable to complete the exam in this timeframe, you must contact me ahead of time to re-schedule.

The time and effort required for this course is equivalent for any upper-level undergraduate course that you could take face-to-face. A high level of participation and effort will be necessary to succeed.

### ***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.

Throughout our course, we will learn the science of how to learn and practice them. The following are some basics.

1. Check and read class emails promptly for announcements, updates, clarifications,

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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.

## ***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

## **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.

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## Lecture

**Exams (60%)** - There will be two exams given during the semester. A mid-term exam and a final exam that will be cumulative. These two 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.**

### Lab

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

**LA 2: List of Two Articles (5%)** – Students will submit a list of two 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 3 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.

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**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.

**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 11:30pm on the due date.
2. I will accept emailed assignments on an emergency basis only. Assignments sent through 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**

### **Browser support**

D2L is committed to performing key application testing when new browser versions are released. New and updated functionality is also tested against the latest version of supported browsers. However, due to the frequency of some browser releases, D2L cannot guarantee that each browser version will perform as expected. If you encounter any issues with any of the browser versions listed in the tables below, contact D2L Support, who will determine the best course of action for resolution. Reported issues are prioritized by supported browsers and then maintenance browsers.

Supported browsers are the latest or most recent browser versions that are tested against new versions of D2L products. Customers can report problems and receive support for issues. For an optimal experience, D2L recommends using supported browsers with D2L products.

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Maintenance browsers are older browser versions that are not tested extensively against new versions of D2L products. Customers can still report problems and receive support for critical issues; however, D2L does not guarantee all issues will be addressed. A maintenance browser becomes officially unsupported after one year.

Note the following:

- Ensure that your browser has JavaScript and Cookies enabled.
- For desktop systems, you must have Adobe Flash Player 10.1 or greater.
- The Brightspace Support features are now optimized for production environments when using the Google Chrome browser, Apple Safari browser, Microsoft Edge browser, Microsoft Internet Explorer browser, and Mozilla Firefox browsers.

### Desktop Support

Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
Microsoft® Edge	Latest	N/A
Microsoft® Internet Explorer®	N/A	11
Mozilla® Firefox®	Latest, ESR	N/A
Google® Chrome™	Latest	N/A
Apple® Safari®	Latest	N/A

### Tablet and Mobile Support

Device	Operating System	Browser	Supported Browser Version(s)
Android™	Android 4.4+	Chrome	Latest
Apple	iOS®	Safari, Chrome	<p>The current major version of iOS (the latest minor or <b>point</b> release of that major version) and the previous major version of iOS (the latest minor or <b>point</b> release of that major version). For example, as of June 7, 2017, D2L supports iOS 10.3.2 and iOS 9.3.5, but not iOS 10.2.1, 9.0.2, or any other version.</p> <p>Chrome: Latest version for the iOS browser.</p>

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Device	Operating System	Browser	Supported Browser Version(s)
Windows	Windows 10	Edge, Chrome, Firefox	Latest of all browsers, and Firefox ESR.

- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
  - 512 MB of RAM, 1 GB or more preferred
  - Broadband connection required courses are heavily video intensive
  - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:
  - Sound card, which is usually integrated into your desktop or laptop computer
  - Speakers or headphones.
  - \*For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.
- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: [JAVA web site http://www.java.com/en/download/manual.jsp](http://www.java.com/en/download/manual.jsp)
- Current anti-virus software must be installed and kept up to date.

Running the browser check will ensure your internet browser is supported.

Pop-ups are allowed.

JavaScript is enabled.

Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
  - [Adobe Reader https://get.adobe.com/reader/](https://get.adobe.com/reader/)
  - [Adobe Flash Player \(version 17 or later\) https://get.adobe.com/flashplayer/](https://get.adobe.com/flashplayer/)
  - [Adobe Shockwave Player https://get.adobe.com/shockwave/](https://get.adobe.com/shockwave/)
  - [Apple Quick Time http://www.apple.com/quicktime/download/](http://www.apple.com/quicktime/download/)
- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

## **ACCESS AND NAVIGATION**

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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](mailto: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**

### **Brightspace Support**

#### ***Need Help?***

#### **Student 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 click on the **Live Chat** or click on the words “[click here](#)” to submit issue via email.



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#### **System Maintenance**

D2L runs monthly updates during the last week of the month, usually on Wednesday. The system should remain up during this time unless otherwise specified in an announcement. You may experience minimal impacts to performance and/or look and feel of the environment.

#### **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 you. During posted office hours, the instructor will return emails upon receipt.

Outside of these times, please allow 24 hours to receive a response on weekdays. If you email me and do not receive an email response within, 48 hours, most likely, your email was not received.

#### **EMAIL GUIDELINES**

In an attempt to provide a framework for professional communication, emails must contain the following:

- Subject Line: Course (e.g. PSY 302); additional information if desired (e.g.

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- Hypothesis testing)
- Address the Reader: Open with Dr. Carlson
- Adhere to writing mechanics rules
- If asking for assistance with an issue, please list at least 3 things you have done to try and remediate the issue prior to contacting me (these should probably include looking at the syllabus/ course rubrics/ eCollege, contacting a colleague, and checking your text, etc.)
- Close with your name

Please send emails from your University accounts. The instructor will not discuss grades over email. If you would like to discuss your grade, please make an appointment during office hours.

## **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/registrar/documents/studentGuidebook.pdf>

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>

#### ***Attendance***

Students are expected to be present for all classes and labs. ***Students who have excessive unexcused absences will be dropped from the course***; three or more absences constitute excessive absences for the purposes of this course. Students are responsible for notifying the instructor of an excused absence and providing appropriate documentation when necessary. Students are also responsible for requesting any makeup work during excused absences.

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>

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<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](#)

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

[Graduate Student Academic Dishonesty 13.99.99.R0.10](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

### **AI Use in Course**

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.

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

### **ADA Statement**

#### **Students with Disabilities**

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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: [sandi.patton@tamuc.edu](mailto:sandi.patton@tamuc.edu)

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

### ***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.

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## COURSE OUTLINE / CALENDAR

Week	Dates	SCHEDULE OF TOPICS AND EXAMS				
		<i>Topic</i>	<i>Assigned Readings</i>	<i>Assignment</i>	<i>Lab</i>	<i>Assignment</i>
1	6/3 – 6/9	Basics of Research and Ethics in Research Design	Ch. 2 (Howell) Ch. 1, 2, and 4 (Nestor)	HW 1: Due June 9 <sup>th</sup>	Ch. 3 (Nestor)	LA 1, 2, and 3
2	6/10 – 6/16	<i>Describing Data, Normal Distribution and Z-scores</i>	Ch. 4, 5, and 6 (Howell)	HW 2: Due June 16 <sup>th</sup>	Ch. 16 (Nestor)	LA 4, 5, and 6
3	6/17 – 6/23	<i>Probability, Sampling, and Measurement</i>	Ch. 7 (Howell) Ch. 5 and 6 (Nestor)	HW 3: Due June 23 <sup>rd</sup>  <b>Midterm Exam Due: June 23<sup>rd</sup></b>		LA 7 and 8
4	6/24 – 6/30	<i>Sampling Distributions and Hypothesis Testing</i>	Ch. 8 (Howell) Ch. 9 (Nestor)	HW 4: Due June 30 <sup>th</sup>		LA 9 and 10
5	7/1 – 7/3	Experimental Design and Confounds	Ch. 8 (Nestor)	<b>Final Exam Due: July 3<sup>rd</sup></b>		LA 11

\***Homework Assignments** (HW), the **Midterm Exam**, and the **Final Exam** are due at 11:30pm on the date listed above.

\***Lab Assignments** (LA) are due on Sunday at 11:30pm of each week, with the exception of LA 11 that is due on the last day of class, Wednesday, July 3<sup>rd</sup>.