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PSY 302 51E Statistics and Research Methods I

COURSE SYLLABUS: Spring 2022

INSTRUCTOR INFORMATION

Instructor: Qingwei Wang, Ph.D.

Class Time and Location: Tuesday, 4:30PM–7:10PM, CHEC Room 106

Office Hours: By appointment

Psychology Office Phone: 903-886-5940

Psychology Office Fax: 903-886-5510

University Email Address: qingwei.wang@tamuc.edu

Preferred Form of Communication: The primary means of communicating with the instructor during the course will be to exchange emails or by appointment.

Communication Response Time: I typically answer emails within 24 hours, however, please allow 24 to 48 hours for a reply.

Lab Instructor: Ms. Elizabeth McLane

University Email Address: eprice2@leomail.tamuc.edu

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required

Nestor & Schutt, *Research Methods in Psychology* (3rd)

ISBN: 978-1-544-32377-0

Howell, *Fundamental Statistics for the behavioral sciences* (9th)
ISBN: 978-1-305-65297-2

Stanovich, *How to think straight about psychology* (9th or 10th)
ISBN-13: 978-0-205-91412-8
ISBN-10:
0205914128

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.

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 experimental study. This project is also broken up into two semesters. This semester you will write a literature review and a method 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 (Should be measurable; observable; use action verbs)

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 is a face-to-face course. Students are strongly encouraged to attend all lecture and lab meetings. If you need to miss a meeting, materials will be available on D2L. Importantly, most students benefit from attending class and participating in class discussions.

Student Responsibilities or Tips for Success in the Course

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, 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?
- 4) Complete all lab assignments and all exams.

Assessments

Course assessments include the following parts:

1. Article Summaries
2. Completion of Exams.
3. Completion of a term project.
4. Lab Participation

1. Article Summaries:

You will be provided with 2 empirical articles on a research topic in the beginning of class. Each summary is worth 20 points.

You will need to read the article thoroughly, and then write 1-2 pages (double-spaced in 12pt Times New Roman font), summarizing the article. I will provide you with detailed instructions in the beginning of this class. But mainly, you will be summarizing what the researchers' main research question was, why they were interested in it, how did they test it, and what did they find based on their results.

2. Exams:

There will be three exams given during the semester. These three exams will be weighted equally. 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, but have a documented excuse (e.g., a doctor's note), there will be a chance to complete a make-up exam, but with an automatic 10-point deduction (loss of a letter grade) on the exam.

3. Term Project:

Another major graded assignment for the course is a term project. The purpose of this assignment is for you to get experience with the overall process of conducting scientific, experimental research.

Students will conduct a brief APA style literature review. This will later serve as the introduction to your final paper in the second semester. Your literature review must include 6 or more references; all should be from reputable scholarly sources and at least 4 of your references must primarily contain reports of empirical research. 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 but reference pages). Some feedback will be provided and you are expected to make changes to the introduction of your final paper accordingly.

In addition to the literature review/ Introduction, the following two sections are to be included in the final submitted term paper. Details of the literature review will be provided in class as we progress.

- a. Operational Definitions** – Students will list and operationally define all variables in their study. The purpose of this exercise is to get students be familiar with how to define the variables in an experimental design.
- b. Hypotheses and Expected Results section**– Students will write the hypotheses and expected results section as if this were a proposal.

4. Lab Participation:

The lab allows students to put into practice the material covered in each textbook chapter. You will be expected to learn how to think scientifically, and an important part of this scientific thinking is practice. By doing exercises and developing research ideas, you will be able to acquire a clear understanding of what comprises scientific research in psychology.

Students may complete the literature review as part of a group (two or three). Students in a group will collaborate to produce ONE literature review. Student should keep track of who does what on each assignment and for the final paper. The final paper must include a statement indicating how each lab member contributed. As a general rule, students in a group will receive the SAME grade.

- **Ethical Training** - Students must complete the CITI ethics training in lab. Failure to complete the training on time will result in a loss of 10% on your final course grade.
- **Lab Participation** – Students must enroll and participate the Lab section. Failure to lab requirements will result in a loss of 10% on your final course grade.

Research Participation (SONA Extra Credits):

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 through SONA system will be extra credit. You will have the opportunity to earn up to 25 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 5 credit hours of research, you will earn the full 25 extra points. For more information, please visit D2L and check the extra credit research participation documents once available.

GRADING

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

Grading:

Article Summary (20x2)	40
Exams (100x3)	300
Term Paper	60
Total	400

Maximum Extra Credits: SONA (25 points)

A = 400 - 360

B = 359 - 320

C = 319 - 280

D = 279 - 240

F = <239

COURSE REQUIREMENTS

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.

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

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.

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
Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
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	The current major version of iOS (the latest minor or point release of that major version) and the previous major version of iOS (the latest minor or point 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. Chrome: Latest version for the iOS browser.
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
- For YouSeeU Sync Meeting sessions 8 Mbps is required.** Additional system requirements found here:
<https://support.youseeu.com/hc/enus/articles/115007031107-Basic-System-Requirements>
- 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](https://get.adobe.com/flashplayer/) (*version 17 or later*) <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

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

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



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.

Interaction with Instructor Statement

If you contact me or a teaching assistant and do not receive an email response within 48 hours (excluding weekends), most likely, your email was not received.

Grades/Feedback on assignments will typically be given within one week, but may take up to two weeks for longer assignments or busier times of the semester.

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>

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>

ADA Statement

Students with Disabilities

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: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/)

<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 [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 Texas A&M -Commerce campuses. Report violations to the University Police Department at 903886-5868 or 9-1-1.

Course Calendar

Week	Date	Topic	Notes
1	01/18	Introductions and syllabus/why do research? (Stanovich: Ch 1 Ch 4)	
2	01/25	The basics of Research Design (Nestor Ch1, 2 & Howell Ch 2)	
3	02/01	Ethics (Nestor Ch 4)	
4	02/08	Exam 1	online
5	02/15	Describing data: Central tendency (Howell Ch 4) Describing data: Variance (Howell Ch 5)	Article Summary 1 due by Sunday (02/20) 11:59PM/
6	02/22	Normal Distribution and z-tests (Howell Ch 5, 6) (Nestor 3, 16)	
7	03/01	No class (Instructor in conference)	CITI Training Due
8	03/08	Normal Distribution and z-tests (Howell Ch 5, 6; Nestor Ch 3, 16)	
9	03/15	No Class	Spring Break
10	03/22	Exam 2	Online
11	03/29	Central limit theorem (Howell Ch 12, 13, & 14)	Article Summary 2 due by Sunday (04/03) at 11:59PM

12	04/05	Hypothesis Testing (one sample t-test) (Howell Ch 12, 13, & 14)	
13	04/12	Sampling (Nestor Ch 6, Stanovich Ch 3)	
14	04/19	Measurement (Nestor Ch 5) Experimental Design (Howell Ch 13, Nestor Ch 8)	
15	04/26	Experimental Design & Confounds (Nestor Ch 9, Stanovich Ch 6)	
16	05/03	Wrap up Literature Review /Prepare for Final Exam	Literature Review due Sunday (05/08) 11:59 PM
17	05/09 - 05/13	Final Exam	Online