

# COURSE PSY 305.51 E, Statistics & Research Design II

Course Syllabus: Spring 5025

### **INSTRUCTOR INFORMATION**

Instructor: Leon King, MS, COTA Office Location: Virtual via Zoom Office Hours: Tuesday 2:30 – 4:30 University Email Address: <u>Leon.king@tamuc.edu</u> Preferred Form of Communication: E-mail Communication Response Time: 24 hours during the week up to 48 hours on weekends

Lab Instructor: Reynolds Ballotti Office Location: Binnion 211 Office Hours: flexible - email for Zoom appointment University Email Address: Rynolds.Ballotti

### **COURSE INFORMATION**

Materials – Textbooks, Readings, Supplementary Readings

Cronk, B. C. (2020). *How to use IBM SPSS statistics: A step-by-step guide to analysis and interpretation*. Routledge.

Gravetter, F. J., Wallnau, L. B., Forzano, L. A. B., & Witnauer, J. E. (2021). Essentials of statistics for the behavioral sciences. Cengage Learning. ISBN: 987-0-357-36529-8

Pallant, J. (2020). SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS. Routledge.

#### **Software Required:**

• If the link doesn't open automatically, please copy and paste it directly onto your Web browser. SPSS Statistical Software (version 18.0 or higher is recommended). You can purchase and download a copy from

http://www.onthehub.com/spss/. Be sure to select the Statistics Standard Grad Pack (NOT the Base Grad Pack!). You can obtain a 6- or 12-month license. You can also purchase a copy from <u>http://studentdiscounts.com</u> (can be installed on two computers).

- Note: SPSS Statistical Software is also on computers in the student lab at the Metroplex and various labs on the Commerce campus.
- Do not worry, you are not in a graduate class and will not be doing graduate statistics problems, however the Standard Grad Pack program is the only program that will allow you to complete all of the steps needed to arrive at the needed answers

# **Course Description**

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

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

**Student Learning Outcomes** (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

5. Apply statistics and research design in solving real-world case studies and applied research application

### **COURSE REQUIREMENTS**

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

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

#### **Instructional Methods**

The lecture portion of this class will be held in person (face-to-face), at the CHEC campus in McKinney, TX. Your lab portion of the class will take place through synchronous learning via ZOOM immediately following lecture. THIS LAB IS MANDATORY. Therefore, I strongly recommend that you remain at the CHEC location following the lecture portion of the class until the lab is complete. With that said, lectures will not be held on exam days therefore, if your lab instructor plans on having lab on exam days, you are welcome to join lab via ZOOM from home as you are not required to be at the CHEC location to sign into ZOOM. Because the computers at the CHEC campus do not have SPSS and you will be purchasing SPSS for homework, some of our lecture courses will take place via ZOOM so that I can show you how to do your SPSS homework assignments and we can screen share if further technical issues arise.

### Student Responsibilities or Tips for Success in the Course

. Questions about Grades Any questions about a grade for a particular assignment or exam should be brought to the professor's attention within one week of the grade being posted in D2L. The following are helpful hints to be successful on this course:

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

2. Take notes and participate in lectures, read the assigned parts of the textbook to check if your listening comprehension matches the textbook descriptions, and fill in the missing pieces.

3. Quiz yourself often. Can you define a concept in your own words? Can you answer 3 or 4 questions of the textbook practice questions correctly?

4. Review the materials on a regular basis. Consider setting aside 20-25 minutes every two days to quiz yourself and work on a few problems for each of the chapters covered in class to ensure that you are able to apply to correct formulas and work the formulas correctly.

5. Complete lecture and lab assignments including exams by the due dates.

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

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

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

### 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

| Exams:            | 20%  |
|-------------------|------|
|                   |      |
| SPSS Assignments: | 20%  |
|                   |      |
| Capstone Project: | 40%  |
|                   |      |
| Lab:              | 20%  |
|                   |      |
| Total:            | 100% |

#### 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 into separate assignments. The contribution of each assignment to the corresponding category (lecture or lab). An important note about grading here, Professor King has nothing to do with your lab assignments or lab grade, so please do not contact Professor King regarding any part of the lab components of this course. Likewise, Your lab instructor has nothing to do with your lecture assignment or grade, so please do not contact your lab instructor about the lecture components of this course.

#### Lecture Assignments:

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

**IBM SPSS Assignments** – Throughout the semester, the instructor will cover how to complete each of statistical methods we cover in class using SPSS. Following the instructor's demonstration, each student will then be required to complete a series of practice exercises in your *How to Use SPSS* textbook. For each of these assignments, the student will need to first provide the data file where the instructor can review the findings from the practice exercises to check for acracy as well as write a mini report describing if the findings are significant and the process in which the student arrived at determining that the findings are, (or are not) significant. This portion of the assignments' answers will be derived from reading the accompanying chapter in the *SPSS Survival Manual* textbook.

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

#### Lab Assignments:

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

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

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

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

#### **Guidelines for Homework and Lab Assignments:**

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

# TECHNOLOGY REQUIREMENTS

### LMS

All course sections offered by East Texas A&M have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

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

#### LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser\_suppo rt.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 <u>helpdesk@tamuc.edu</u>.

**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 East Texas A&M 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.

#### Interaction with Instructor Statement

Students may communicate with the instructor prior to class during office hours on Tuesday afternoons, via Zoom on Monday afternoons during virtual office hours or via E-mail. Emails will be answered within 24 hours during the week and within 48 hours on weekends and holidays.

## 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 can be found at <u>https://www.tamuc.edu/student-code-of-conduct/</u>.

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 <u>https://www.tamuc.edu/office-of-student-rights-and-responsibilities/concerns-incident-reporting/</u> Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <u>https://www.britannica.com/topic/netiquette</u>

#### Academic Integrity

Students at East Texas A&M 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: <u>https://inside.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesProcedures/13students/graduate/13.99.99.R0.10.pdf</u>

Graduate student academic dishonesty form: <u>https://inside.tamuc.edu/academics/graduateSchool/faculty/GraduateStudentAcademic</u> <u>DishonestyForm.pdf</u>

#### East Texas A&M Attendance

For more information about the attendance policy please visit the <u>Attendance</u> webpage.

#### **Artificial Intelligence**

East Texas A&M 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.

## **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: <u>StudentDisabilityServices@tamuc.edu</u> **Website:** <u>http://inside.tamuc.edu/campuslife/campusServices/StudentDisabilityServices/etault.aspx</u>

### 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.



## East Texas A&M Supports Students' Mental Health

The Counseling Center at East Texas A&M, 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

### **Nondiscrimination Notice**

East Texas A&M 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 East Texas A&M 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 East Texas A&M 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 <u>Carrying Concealed Handguns On Campus</u> 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 East Texas A&M campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

## Department or Accrediting Agency Required Content

| Week: | Date:       | Торіс:   | Readings:                 | Assignment:                       |
|-------|-------------|--|---------------------------|-----------------------------------|
| 1     | 1/12 - 1/18 | Hypothesis Testing   | EOS: Ch. 8                |                                   |
| 2     | 1/19 - 1/25 | Introduction to SPSS                                       | HTUS: Ch. 1 -3            | SPSS Practice from HTUS,<br>Ch. 3 |
| 3     | 1/26 - 2/1  | Introduction to <i>t</i> -testing,<br>Getting to know SPSS | EOS: Ch. 9, SSM:<br>Ch. 3 |                                   |

## **COURSE OUTLINE / CALENDAR**

| 4  | 2/2 - 2/8    | The t-test for two samples                   | EOS: Ch. 10                     | Client Profile and Lit.<br>Review                   |
|----|--------------|--|---------------------------------|---|
| 5  | 2/9 - 2/15   | The t-test for two samples                   | EOS: Ch. 11                     | Journal Club  |
| 6  | 2/16 - 2/22  | t-testing using SPSS                         | HTUS: Ch. 6,<br>SSM: Ch. 17     | SPSS Practice from HTUS,<br>Ch. 6, Journal Club     |
| 7  | 2/23 - 3/1   | Test 1                                       |                                 |   |
| 8  | 3/2 - 3/8    | Descriptive Statistics and Graphing Data     | HTUS: Ch. 3 - 4,<br>SSM: Ch. 7  | SPSS Practice from HTUS,<br>Ch. 3 - 4, Journal Club |
| 9  | 3/9 - 3/15   | Spring Break                                 |                                 |   |
| 10 | 3/16 - 3/22  | Introduction to ANOVA                        | EOS: Ch. 12                     | Journal Club  |
| 11 | 3/23 - 3/29  | Two Factor ANOVA                             | EOS: Ch. 13                     | Journal Club  |
| 12 | 3/30 - 4/5   | ANOVA using SPSS                             | HTUS: Ch. 7,<br>SSM: Ch. 18, 19 | SPSS Practice from HTUS,<br>Ch. 7, Journal Club     |
| 13 | 4/6 - 4/12   | Compression/Regression                       | EOS: Ch. 14                     |   |
| 14 | 4/13 - 43/19 | Test 2                                       |                                 |   |
| 15 | 4/20 - 4/26  | Work with group and<br>Professor on Capstone |                                 | Capstone Report/slides due                          |
| 16 | 4/27 - 5/3   | Capstone Presentation                        |                                 |   |
| 17 | 5/4 - 5/9    |  |                                 |   |

EOS = Essentials of Statistics SSM = SPSS Survival Manual HTUS = How To Use SPSS