# PSY 302.51E Psychological Statistics
COURSE SYLLABUS: Fall 2020

## INSTRUCTOR INFORMATION

Instructor: Robert Lockamyeir, M.S.
Office Location: BIN 208L
Office Hours: By appointment via Zoom
University Email Address: rlockamyeir@leomail.tamuc.edu
Preferred Form of Communication: E-mail
Communication Response Time: Within 24 hours

## COURSE INFORMATION

**Textbook(s) Required:**
Statistics for Psychology (6th ed.) Aron, A., Coups, E., & Aron, E. N.
ISBN: 978 – 0205924174

**Other Required Materials:**
Calculator with square root and exponent functions. TI-30Xa is an example.
Access to D2L and JASP online.

**Course Description:**
　　　We will study the logic and methods of descriptive and inferential statistics and their relation to experimental design in psychology. Statistics plays an integral role in interpreting the results of research. You should exit this course knowing how and when to compute descriptive statistics (e.g., mean, variance, z-score), and, how and when to compute inferential statistics (e.g., t-tests, ANOVA) to test hypotheses.

*Note: You must be enrolled in both the 3 credit hour lecture AND the 1 credit hour lab.*

The *syllabus/schedule are subject to change.*

## COURSE REQUIREMENTS

## 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.

Students are expected to:
1. Read the assigned material, which includes following the numeric examples closely and writing down questions about anything not entirely clear to you. Reading statistics requires close study and re-reading, not just reading through once as you might an ordinary book.
2. Do practice problems, including homework assignments (and turning them in on time). Statistics is a skill, and it is necessary to DO statistics. Practice is critical to understanding thoroughly.
3. Read Lecture Notes and watch Lab Videos every week. There are also assignments due each week, so DO NOT fall behind! Each chapter builds upon knowledge previously learned.
4. Studying for, taking, and reviewing answers for quizzes and exams.
5. It is very important to treat this course like any other you would take. It is not a "math" class, however there is math involved. Understanding *why* you are doing each calculation, instead of just *how* to get to the answer, will make things much easier.

## Weekly Requirements

Each week, there will be a variety of things that will be required. We will tackle a new chapter every week (minus exam weeks) so it is important to keep up with each week's material. At the beginning of each week (Monday), all materials will be posted under that week's module on D2L. This will consist of that week's chapter Powerpoint, lecture notes that correspond to the Powerpoint, and a lab video lecture. You are required to (1) read the chapter for that week, (2) review the Powerpoint and lecture notes, and (3) watch the lab video lecture. As far as assignments go, be sure to pay close attention to the course outline (below) for due dates for homework, quizzes, JASP exercises, and exams. Quizzes, JASP exercises, and exams will always be posted to D2L on Mondays during weeks they are due. All submission folders for uploading photos of these assignments will open on Mondays as well. Most weeks there will be two assignments due, but again, pay close attention to the schedule to ensure that you are not late turning anything in or miss an assignment completely.

## GRADING

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

A = 90%-100%    810 – 900 points        D = 60%-69%    540 – 629 points

B = 80%-89%    720 – 809 points        F = 59% or below    0 – 539 points

C = 70%-79%    630 – 719 points

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# Assessments

**HOMEWORK ASSIGNMENTS  (20 points each; 200 points total)**
     There will be 10 homework assignments during the semester. These assignments are designed to increase your understanding of the topics being covered and give you the opportunity to apply course material. All homework assignments come from the end of each chapter (Set II) of the textbook. See the homework assignment schedule below.

1.   Assignments should be hand written *neatly*. **If I cannot read it, I cannot grade it.** This is especially critical when turning in assignments online. Please clearly label your answers.
2.   **Show your work** when working a problem involving formulas. At minimum, you should show each complete formula in its basic form filled in with numbers, at least one intermediate step, and the final answer. If no work is provided, no points will be rewarded.
3.   *ABSOLUTELY NO LATE ASSIGNMENTS* will be accepted. If you have a serious conflict, please reach out to me *before* the assignment due date and we can make necessary arrangements.
4.   Homework assignments are intended to be completed individually. Working with other people will not advance your knowledge of this material. You will only benefit from practicing these problems on your own.
5.   *Homework assignments will be graded as follows:*
     a.   Each homework assignment is worth 20 points.
     b.   Late assignments or assignments with no work will earn 0 points.

**Turning in Homework Assignments**
     All homework will be submitted via D2L in the assignment folder named "Chapter X Homework" and can be found on D2L under the week that it is due. This folder will open on Monday at 12 AM and close on Friday at 11:59 PM during weeks that there is homework assigned. Please upload photos of each page of your homework to this folder. I cannot stress enough, please be clear in your writing and label all answers. If I cannot decipher your work or answers, I cannot grade it.

**JASP EXERCISES (20 points each; 80 points total)**
     Throughout the semester, there will be **four (4) JASP exercises** to be completed. JASP is a statistics program that we will be using to supplement your learning of statistics by hand. More importantly, JASP will be used to teach you how to interpret statistical output, which is a critical skill of a psychology researcher. The goal of using JASP is to give you exposure to statistics in a different light, and hopefully help further develop a statistical foundation that you can carry with you to Experimental Psychology and beyond. I will provide you with more information on how to access JASP via your home computer.

**Turning in JASP Exercises**
     To turn in JASP exercises, you will have to take photos of each page of the assignment and upload them to the folder on D2L named "JASP Exercise X" under the week that it is due.

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**QUIZZES (20 points each; 120 points total)**
It is helpful for you to **read the assigned chapters in the textbook**. To encourage that behavior, there will be **six (6) quizzes**. Quizzes will be broken down into two parts. Part 1 will be a problem (or problems) to be completed by hand. Part 2 will be in the form of multiple choice and/or fill in the blank questions that will take place via D2L. This class is cumulative so these quizzes are designed to assess your knowledge of that week's material, both conceptually and "mathematically."

**Turning in Quizzes**
Each quiz will contain two parts. Part 1 will be a problem that you will have to answer by hand and Part 2 will be multiple choice and/or fill in the blank questions. You will have to complete Part 1 and upload photos of each page (if you used more than one) of the quiz to the folder on D2L named "Quiz X - Part 1." This folder can be found under that week's module and will open on Monday at 12 AM and close on Sunday at 11:59 PM during weeks that there is a quiz. Part 2 of the quiz will be distributed online via D2L. There will be 5 questions in Part 2 and you will have 10 minutes to complete this part. Part 2 will also open on Monday at 12 AM and close on Sunday at 11:59 PM.

**EXAMS (Mid-semester exams: 100 points each; Final exam: 200 points; 500 points total)**
There will be three mid-semester exams and one final exam. ***The final exam will be cumulative and include all previously covered material.*** The questions will require not only recognition of concepts and correct answers, but will be designed to test comprehension and application of concepts as well. Material for the exams will be drawn from the text, and the lectures. Like quizzes, exams will be broken down into two parts. There will be no make-up exams except as mandated by University policy for University-excused absences, religious holidays, and major illnesses. Please contact me **prior** to the scheduled exam.
**Students who can demonstrate a legitimate University-excused absence, religious holiday or major illnesses are allowed to make up the exam.**

**Turning in Exams**
Exams will work like quizzes. There will be two parts: Part 1 will be problems you have to work out by hand and Part 2 will be multiple choice and fill in the blank questions. You will need to complete Part 1 and upload photos of each page of the exam to the folder on D2L named "Exam X - Part 1." This folder will open on Monday at 12 AM and close on Sunday at 11:59 PM during weeks that there is an exam. Part 2 of the exam will be distributed online via D2L. Part 2 will also open on Monday at 12 AM and close on Sunday at 11:59 PM. Part 2 will consist of roughly 12-15 questions and you will have 45 minutes to complete this part.

**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 online research studies. 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. All students in this class will be required to participate in the psychology department's participant pool or complete alternative assignments (more information on alternative assignments below). However, due to COVID-19, all studies this semester will take place online.

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Students must complete a total of 3 credits. When you first sign into the experiment management system (EMS) you will be asked to take a prescreen survey. 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 studies that are worth ½ credit.

If you fail to earn your 3 credits, your grade will be lowered by one full letter. 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 posted on D2L under the module named, "Research Participation."

If you do not want to participate is research, there is an alternative assignment. The alternative assignment is a 1-2 page article summary. These must be written on empirical research articles from peer-reviewed journals (NOT a website or Psychology Today magazine). Each article summary is the equivalent of participating in 1 credit hour of research. So, if you choose not to participate in any research, you must complete 3 article summaries to satisfy this requirement and avoid your grade dropping a full letter grade.
**\*Research participation and alternative assignments are due by the last day of classes, Friday, December 4th.**

## Regarding the University's Pandemic Response

A&M-Commerce requires the use of face-coverings in all instructional and research classrooms/laboratories. Exceptions may be made by faculty where warranted. Faculty have management over their classrooms. Students not using face-coverings can be required to leave class. Repetitive refusal to comply can be reported to the Office of Students' Rights and Responsibilities as a violation of the student Code of Conduct.

Students should not attend class when ill or after exposure to anyone with a communicable illness. Communicate such instances directly with your instructor. Faculty will work to support the student getting access to missed content or completing missed assignments.

## 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

YouSeeU Virtual Classroom Requirements:
https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements

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# ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu**.**

**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

# COMMUNICATION AND SUPPORT

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

## Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

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

## Interaction with Instructor Statement

### Email Policy
The instructor is available virtually by email. 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. Please allow 24 hours to receive a response on weekdays. If you email me and do not receive an email response within 48 hours, your email most likely was not received.

### Zoom
Since everything is online this semester, I will not be holding set office hours. If you want to meet with me, we can do so via Zoom. If you have questions or concerns, or just need to go over something to make sure you understand it, please, *please* do not hesitate to contact me. With the exception of a few other weekly commitments, my availability is wide open, so we should not have any issue arranging a time to meet virtually. As I have stated before, this class builds on prior weeks, thus it is critical to keep up with the material. If you are having any problems, it is best to address them sooner rather than later, so reach out to me and I am happy to meet with you.

### Assignment Feedback
All assignments will be promptly graded and returned to you within one week. It is important to review this feedback and to correct any errors that you made.

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# COURSE AND UNIVERSITY PROCEDURES/POLICIES

## Course Specific Procedures/Policies

Although you will have a full week to complete exams (and other assignments), if for any reason you are unable to complete an exam (or assignment), you must let me know **BEFORE** the day the exam (or assignment) is due so we can make the appropriate arrangements. You are allowed to make up missed exams, but **ONLY** if you plan with me ahead of time. If you miss an exam and do not contact be **BEFORE** the date it is scheduled to be taken, you will be given a 0 for this assessment.

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

## 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

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http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13stude
nts/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13stude
nts/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

## Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

**Office of Student Disability Resources and Services**
Texas A&M University-Commerce
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/

## 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.

The *syllabus/schedule are subject to change.*

Web url:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34Safet
yOfEmployeesAndStudents/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 1 (8/24-8/30)
Syllabus and introduction
Chapter 1: Frequency tables and describing a distribution
 **Homework 1 Due Friday, 8/28**
 **Quiz 1 (Chapter 1) Due Sunday 8/30**

WEEK 2 (8/31-9/6)
Chapter 2: Central tendency and variability
 **Homework 2 Due Friday, 9/4**
 **JASP Exercise 1 Due Sunday, 9/6**

WEEK 3 (9/7-9/13)
Chapter 3: Z scores, the normal curve, and probability
 **Homework 3 Due Friday, 9/11**
 **Quiz 2 (Chapter 3) Due Sunday, 9/13**

WEEK 4 (9/14-9/20)
 **Exam 1 (Chapters 1-3) Due Sunday, 9/20**

WEEK 5 (9/21-9/27)
Chapter 4: Introduction to hypothesis testing
 **Homework 4 Due Friday, 9/25**
 **Quiz 3 (Chapter 4) Due Sunday, 9/27**

WEEK 6 (9/28-10/4)
Chapter 5: Hypothesis testing with means of samples
 **Homework 5 Due Friday, 10/2**
 **Quiz 4 (Chapter 5) Due Sunday, 10/4**

WEEK 7 (10/5-10/11)
Chapter 6: Decision errors and effect size
 **Homework 6 Due Friday, 10/9**

WEEK 8 (10/12-10/18)
 **Exam 2 (Chapters 4-6) Due Sunday, 10/18**

WEEK 9 (10/19-10/25)
Chapter 7: Introduction to *t* tests
 **Homework 7 Due Friday, 10/23**
 **Quiz 5 (Chapter 7) Due Sunday, 10/25**

WEEK 10 (10/26-11/1)
Chapter 8: Independent means *t* tests
 **Homework 8 Due Friday, 10/30**
 **JASP Exercise 2 Due Sunday, 11/1**

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WEEK 11 (11/2-11/8)
 **Exam 3 (Chapters 7-8) Sunday, 11/8**

WEEK 12 (11/9-11/15)
Chapter 9: One-way analysis of variance (ANOVA)
 **Homework 9 Due Friday, 11/13**
 **Quiz 6 (Chapter 9) Due Sunday, 11/15**

WEEK 13 (11/16-11/22)
Chapter 10: Main effects and interactions
 **Homework 10 Due Friday, 11/20**
 **JASP Exercise 3 Due Sunday, 11/22**

WEEK 14 (11/23-11/29)
 **Thanksgiving Break**

WEEK 15 (11/30-12/6)
 **JASP Exercise 4 Due Sunday, 12/6**

WEEK 16 (12/7-12/11)
 **Final Exam (Chapters 1-10) Due Friday, 12/11**

**\*ALL ASSIGNMENTS (HOMEWORK, QUIZZES, JASP, AND EXAMS) ARE DUE AT 11:59 PM ON THE SCHEDULED DATE**

# HOMEWORK ASSIGNMENTS

Chapter 1: 11abc, 12a-f, 14abc, 16bcd

Chapter 2: 11a-e, 13a-e, 17abc, 18

Chapter 3: 14a-g, 16a-j, 17a-e, 21ab

Chapter 4: 13abcd, 17ab, 18ab

Chapter 5: 14abcd, 19abc, 20abc, 21abc

Chapter 6: 13abc, 14a-e

Chapter 7: 14abc, 15abc, 17abc, 18abc

Chapter 8: 14abc, 15a-e, 17abc, 18abc

Chapter 9: 14a, 16adefghi

Chapter 10: 12abcd (only i and ii), 13abcd (only i and iii)

The *syllabus/schedule are subject to change.*