Fall 2022

Statistics for Psychology (PSYC 300) Time: MW 09:00 AM - 10:15 AM

Location: Nguyen Engineering Building | Room 1107

INSTRUCTOR: Kyle Hickerson, M.A.

Preferred Name: Kyle **Pronouns:** He/Him/His

ZOOM ONLINE OFFICE HOURS: By appointment

OFFICE: David King Hall, 1020B

EMAIL: khicker@gmu.edu

COMMUNICATION

All communication must be done through your GMU email. Generally, you can expect a response from me within 48 hours. If I have not responded by then, please reach out again.

REQUIRED TEXTBOOK: Statistics for People Who Think That They Hate Statistics, 7th Edition by Salkind (<u>shorturl.at/bCIU6</u>). Note that older or free versions of the book are acceptable as well if you can find them.

COURSE DESCRIPTION

We will cover many of the basic descriptive and inferential statistics that are used in the field of psychology. This is a 4-credit course, which includes both a lecture section and a lab section. There will be a brief end of semester exam where you apply what you have learned. The HW will typically be 10-20 multiple choice questions that will be answered on Blackboard. The Final will follow the same structure, just with more questions. Additionally, you will be asked to write a series brief podcast synopses of the Quantitude podcast (https://quantitudepod.org/episodes/). I recommend the Multiple Regression, MEasurement, and Study Design playlists. During your lab sessions, you will review and practice the topic(s) from that week's lectures. You will also get hands-on experience using JAMOVI to analyze data.

LEARNING OBJECTIVES

Students will achieve competent understanding of foundational research statistics including data visualization, descriptive statistics, and variance. Students will be able to use traditional parametric statistics to analyze data including correlation, regression, t-tests, and ANOVA. Students will be able to explain the results of their analysis in both technical and simple terms to demonstrate mastery of the material.

COURSE SCHEDULE

Week	Topic	Date
1	Syllabus Overview & Primer	Aug 22nd

2	Intro to Stats Central Tendency & Measurement Types (Chapter 1 & Chapter 2)	Aug 29th
3	Labor Day – No Class	Sep 5th
4	Variance Visualization (Chapter 3 & 4)	Sep 12th
5	Correlation Reliability & Validity (Chapter 5 & 6) - Synopsis 1 due	Sep 19th
6	Hypothesis Testing Data Distributions (Chapter 7 & 8)	Sep 26th
7	Significance Testing Z-tests (Chapter 9 & 10)	Oct 3rd
8	Fall Break No Class	Oct 10th
9	Independent & Dependent samples t-test (Chapter 11 & 12) - Synopsis 2 due	Oct 17th
10	ANOVA (Chapter 13)	Oct 24th
11	Factorial ANOVA (Chapter 14)	Oct 31st
12	Correlation (Chapter 15)	Nov 7th
13	Linear Regression (Chapter 16) - Synopsis 3 due	Nov 14th
14	Thanksgiving Break – No Class	Nov 21st
15	Study Week – No Class	28th
15	Reading Day – Final Exam Released on Dec 7th	Dec 5th
16	FINAL EXAM DUE	Dec 14th

COURSE STRUCTURE, GRADING AND REQUIREMENTS

Hybrid Course & Course Structure

As I expect you to complete homework weekly, and I have designed the lecture to be a more efficient use of our time, it seems unfair of me to not have time set aside for you to complete your homework. As you should have our Wednesday time blocked off for class, this is an opportunity to complete your homework within a time period that has already been set aside for class. *We will not meet on Wednesdays*. However, should you wish to meet to ask questions about the material, this should be a mutually free slot.

Generally, I prefer to push the material a little faster so that we might make more efficient use of class time. This allows for a more flexible class schedule and allows us to not meet on Wednesdays and have more breaks during the semester. I have found that students tend to prefer this course setup, which is why I am using it again.

Coursework

- 1. Homework 35%
 - a. HW will be assigned on Blackboard to help reinforce what you have learned.
- 2. Lab section 35%
 - a. You will have a series of labs where you practice the skills you've learned in Jamovi. If you exceed your allotted missed days policy for lab without notifying your instructors, you will automatically receive a 0% for your lab grade, and therefore fail the course. See attendance and late policy.
- 3. Final Exam- 35%
 - a. An online exam covering everything you have learned this semester.
- 4. Podcast Synopsis 5%
 - a. Throughout the semester, you will listen to an episode of your choice, that focuses on statistics from the Quantitude Podcast (i.e. No 'Advice for Graduate Students' type episodes). The synopsis assignment sheet can be found on Blackboard. Quantitude is a podcast run by quantitative psychologists/statisticians that I hope will expose you to a variety of new ways to think about statistics and data, even if it seems too advanced today.
 - b. https://quantitudepod.org/playlists/

Grading -

To calculate your grade, take your category average and multiply it by the appropriate weight. Next, sum the weighted average to find your final grade percentage and cross-reference the table below to find your grade.

Furthermore, I reserve the right to fail students for not respecting their fellow peers, including but not limited to homophobia, racism, bullying etc.

Letter Grade	%
A	≥ 90%
B+	87-89
В	83-86

B-	80-82
C+	77-79
С	73-76
C-	70-72
F	< 70%

POLICIES

Attendance & Late Policy

Attendance is critical due to the nature of the course. Each week, the classes build on the previous and will form your foundation of statistical knowledge. Therefore, it is critical that everyone attend class if able. **If you cannot make it to class, you are still expected to complete the work**. You can miss up to two labs, of which you will receive a 0 for the week but will be dropped from your final grade at the end of the semester.

Assignments are subject to a 10% penalty for each day late. This may be waived on a case-by-case basis at the discretion of the instructor, based on the student's needs. Students will have their 2 lowest scores dropped for both HWs and Lab grades.

Accomodations

As an instructor, I cannot help you succeed if I am not aware that you are in need of assistance or accommodations. I know asking for help can be difficult or scary, but I would rather help you succeed than inadvertently harm your grade because I was not in-the-loop about your needs. Depending on your situation, you may wish to reach out to the Student Support Advocacy Center (703-380-1434; https://ssac.gmu.edu/) or Counseling and Psychological Services (703-993-2380; https://caps.gmu.edu/) for support. The SSAC and CAPS are confidential resources for you.

Class Cancellation & Makeups

If class must be canceled (snow, power outage etc.), I will post the HW and lecture online as soon as possible. The HW will be due at the usual assignment deadline. **NOTE**: If your situation makes it so that you cannot complete the work in the allotted time, please reach out for accommodations

ACADEMIC INTEGRITY

Final exam must be completed by yourself.

Podcast Synopses must be completed by yourself.

Homework may be discussed with myself, the lab instructor or fellow students, *but directly copying another student's work* is strictly against the rules.

Failure to follow these guidelines may be viewed as evidence of academic dishonesty, which can result in a grade of F for the course and other penalties through the University System.

DISABILITY SERVICES

Disability Services at George Mason University is committed to providing equitable access to learning opportunities for all students by upholding the laws that ensure equal treatment of people with disabilities. If you are seeking accommodations for this class, please first visit http://ds.gmu.edu/ for detailed information about the Disability Services registration process. Then please discuss your approved accommodations with me. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email: ods@gmu.edu | Phone: (703) 993-2474

Title IX

George Mason University is committed to providing a learning, living and working environment that is free from discrimination and a campus that is free of sexual misconduct and other acts of interpersonal violence in order to promote community well-being and student success. We encourage students who believe that they have been sexually harassed, assaulted or subjected to sexual misconduct to seek assistance and support. University Policy 1202: Sexual Harassment and Misconduct details Mason's process, the resources, and the options available to students. Any faculty or staff member is required to report all disclosures of sexual assault, interpersonal violence, and stalking to Mason's Title IX Coordinator, but please know that this will result only in someone reaching out to you directly to let you know about available services and to determine if you wish to take any action. You can also contact the Student Support and Advocacy Center (703-380-1434; https://sac.gmu.edu/) or Counseling and Psychological Services (703-993-2380; https://caps.gmu.edu/) to speak to someone confidentially, as those offices are not required to report disclosures. You may also seek assistance from Mason's Title IX Coordinator (703-993-8730; titleix@gmu.edu/).

IMPORTANT DATES

Last day to add a class: August 29th

Last day to drop (with 100% tuition refund): September 6th Last day to drop (with 50% tuition refund): September 13th Unrestricted Withdrawal Period: September 14th - 27th Selective withdrawal period: September 28th - October 24th

Last day of classes: December 3rd Reading day(s): December 5th - 6th

Final exam period: December 7th - December 14th

NOTE: The contents of the syllabus are subject to change at the discretion of the instructor. Changes will be communicated, and updated syllabus will be provided as soon as possible.

By continuing to be enrolled in this course, you agree to abide by the policies set forth in this document.