

Research Design & Statistics 2
Department of Psychology
Fall 2024

Mon August 19 – Fri December 13

Instructor: Dr. Maggie Polk

Office: AH 0129

Class Location: Founders Hall 0116 **Lab Location:** Founders Hal 0303

Graduate Teaching Assistant: Lilly Olhsen

Office Location: Zoom

Graduate Teaching Assistant: Kiya Rainey

Office Location: Zoom

Zoom links will be posted on blackboard

E-mail: marpolk@siue.edu

Office Hours: M/W: 1-2pm/by appointment Class Meeting time: M/W 10-10:50am Lab Meeting time: 001 – 9-10am

002 – 10-11am

E-mail: lohlsen@siue.edu

Office hours: 1-2pm Wednesday

E-mail: kiraine@siue.edu
Office hours: 10-12 Tuesday

<u>Course Description:</u> In this course we will explore experimental methods for designing psychological studies and statistics used to analyze and interpret the data. Building off what we done in PSYC 220, by the end of the semester you will learn how to read, understand and critically evaluate statistical data. You will also generate testable hypotheses, design a research study and collect data, and calculate appropriate statistics. Finally, you will also learn to write and present an APA paper. Overall, my goal is to make statistics and research methods less scary, and provide you a foundation for understanding research in the real world.

Course Objectives:

• Research & Statistic Skills

You will learn the basics and major concepts of descriptive and inferential statistics, and then be able to decipher which type of statistics are used in which scenarios. In addition, you will learn the techniques of the whole research process: conducting a literature review, developing research ideas, deciding which type of method to use, gathering and analyzing data, and communicating results.

• Writing Skills

• You will learn how to write in APA style and improve your writing skills.

• Critical and Creative Thinking

 You will learn how to transform curiosity into testable research questions, and how to critically evaluate these questions.

Textbook:

Gravetter, F. J. & Forzano, L. B. (2018). *Research methods for the behavioral sciences* (6th ed.). Belmont, CA: Cengage. *Note: will be labeled as R.M.*

Gravetter, F. J., Wallnau, L. B., Forzano, L. B., & Witnauer, J. E. (2018). *Essentials of statistics for the behavioral sciences* (10th ed.). Cengage. *Note: will be labeled as Stats*

Undergraduate students can rent textbooks from SIUE. Please visit the <u>Textbook Service website</u> for more information. For off-campus classes, the textbook may be shipped to you. Look for the option "Off-Campus Classes have special instructions, click here for these." Note: shipping time may take up to two weeks.

Other course materials

Additional readings may be assigned throughout the semester and will be posted to Blackboard.

Technology

- Blackboard: https://bb.siue.edu
 - o All announcements and communication will be done through Blackboard. In addition, powerpoints, assignments, handouts, and everything will be posted here
- **Zoom**: https://www.siue.edu/its/zoom/
 - We use Zoom for online office hours, and/or in the even that we need to do any classes remotely. Use the link above and download the Zoom app (under Tips for Students).
- SPSS: This should be installed on the computers in the labs we'll use, but it can also be really useful to install on your own computer. Here is the link, but be sure to carefully follow the instructions as you only get one chance. You'll need to download the install file and the document with the license code.
 - https://www.siue.edu/its/labsclassrooms/vlab/spss.shtml
 - Note: SPSS can be installed on any Mac or Windows computer, but will NOT work on Chromebook laptops.
- **Microsoft Office**: I highly recommend downloading and installing, (*don't try to use the web version!*). https://www.siue.edu/its/office365/install.shtml
- Qualtrics: for survey data gathering https://siue.qualtrics.com/

Communicating with the instructor:

The most reliable way (and only way) to contact me is via e-mail. I respond to e-mails I receive during the week (M-F, 9-5 p.m.) within 24-48 hours. If you need to speak with me personally, I am easy to find during my office hours in my office. If you are unable to attend office hours due to a scheduling conflict, please contact me for an appointment. Both in the classroom and email, I expect that you will address me as Dr. Polk or Professor Polk.

E-Mail Guidelines:

E-mail is a wonderful tool when used properly. Please follow these simple guidelines when e-mailing me or a TA, so that we can identify which section you are in and address your concern without having to write you back to say "Who are you and what section are you in??" (This happens, *often*!)

- 1. Include class info in your subject line (PSY 221 Sec XXX). This is where your section number becomes especially important.
- 2. ALWAYS sign your e-mail. Many of you have e-mail addresses that mask your identity.

3. Please treat your e-mails as professional communications. Please use proper grammar, spelling, and punctuation.

Note: I reserve the right to NOT respond to emails that lack any of these guidelines and/or are questions that can be easily solved on your own.

Communicating with YOU:

I will send out many emails and announcements via Blackboard so it is your responsibility to check your SIUE email regularly, as well as Blackboard announcements.

Course Requirements and Policies

All assignments will be posted in Blackboard. The dates of each assignment can be found on Blackboard and in your course calendar at the end of your syllabus. It is your responsibility to make sure that all assignments are completed and turned in on time. Work turned in after the scheduled date and time is considered late work.

Submitting Work

All assignments will be submitted via Blackboard. No emailed assignments will be accepted. *Do not email me to ask for extensions. This class moves at an extremely fast pace and it is your job to keep up.*

Syllabus Quiz: It is your responsibility to complete the syllabus quiz within the first week in order to be familiar with this syllabus.

<u>CITI Training</u>: An online certification of research ethics training. You should have already completed this in 220 so this will be an easy assignment. Please upload your completion of CITI training to blackboard. If for some reason you have not done CITI training, you can find the link and instructions for how to complete it on blackboard. In order to continue in this course, this *has* to be completed and uploaded. If it is not completed or uploaded, you will be dropped from the course.

<u>Lecture Quizzes:</u> Each week you will have a comprehension check quiz on Blackboard. These questions will be multiple choices questions drawn from each chapter we have covered that week. While I do not take attendance in this course, I will hand out worksheets that will be of great help when you take the quizzes. Your quizzes will be due each **Sunday at 11:59 p.m.** each week. You will only be allowed to take the quiz once, and you will only have 15 minutes to complete the quiz. Your lecture worksheet will be extremely helpful when you take your quiz. You can use your textbook and notes but should not use the internet to help with these quizzes. Each quiz is worth 10 points and there will be a total of 13 quizzes.

Lab Worksheets: Every Friday there will be lab sessions. Make sure you attend the lab section that you enrolled in. In each lab, there will be an assignment for you to complete during the lab and have turned in by **11:59 p.m. on Sunday.** In order to get access to the lab worksheet, you must be present in class. There will be 13 lab assignments.

Exams: You will have two exams in this course – one midterm and one final. Your exams will be taken online via Blackboard. They will be open book and open note, but not open internet. You will have 75 minutes to complete your midterm and 3 hours to complete your final exam. Exams must be taken alone. Exams will consist of factual and conceptual questions, problems and application-based questions. Please note that your final exam will be **Cumulative.**

Group Research Project: For the group project, you will be put into groups of about 4 students in your lab section. You will work with your group to design and conduct a survey study. Your project will be completed in stages with due dates throughout the 16-week course as you create an APA style paper. Drafts will be submitted on Blackboard, which uses Turnitin to detect plagiarism. As a group, you will turn one final presentation together. Everyone in the group will receive the same score for that. However, for all of the different drafts and sections (literature review, method section, results section, and final paper), you will write individually and receive your own individual score Your grade will be based on each draft, the presentation, the final paper and peer evaluation. Please note that your peer evaluation will have a stronger impact on your grade. There are more specific breakdowns and guidelines located in the group project folder on Blackboard.

Course Policies

While using your laptops in class is allowed, please refrain from being on non-class related websites (e.g., Facebook, Twitter, Texting, Google chat, Amazon, etc.). Also, please take out headphones and earphones when in class. Phones should never be used in class. Such behaviors may result in me asking you to leave the classroom and will negatively affect your grade.

Attendance:

There will be no grade for lecture attendance. If you are unable to make it, you do not need to let me know. It will be your responsibility to get the notes from someone and go over the content and assignments you missed.

Labs will have a MANDATORY attendance. Unless you have an excused absence, you will be expected to be in lab each week. If you are not present in lab, you will receive a 0 for your lab worksheet that week. If you miss multiple labs (i.e., more than 2) and do not notify the GAs or your group members, you will be deducted a letter grade for your final presentation grade. As most of the labs will be centered around group work, it is imperative that you are there to help your group.

In addition, if a student shows up more than 10 minutes late to lecture or lab, they will not receive credit for the assignments that happen in those sessions. It is your responsibility to ensure you show up on time to class to make sure you can receive all of the materials.

Course Questions

It is natural for everyone to have questions and I want you to feel comfortable asking questions. That said, in some cases, students ask questions that could be easily answered by looking in the syllabus or course materials. In order to facilitate personal responsibility, I ask that you follow the "rule of 3 then me" before asking a question. If your question is about the course requirements or some aspect of the course check in 3 places for the answer before you ask me.

When you ask me, tell me where you have looked for the answer and explain your question. This helps me understand the question so I can give you a better answer. If you do have a question, you can send me an email.

Academic integrity/plagiarism

Plagiarism is the use of another person's words or ideas without crediting that person. Plagiarism and cheating will not be tolerated and may lead to failure on an assignment, in the class, or dismissal from the University, per the SIUE academic dishonesty policy. Students are reminded that the expectations and academic standards outlined in the Student Academic Code (3C2) apply to all courses, field experiences and educational experiences at the University, regardless of modality or location. The full text of the policy can be found here: https://www.siue.edu/policies/3c2.shtml.

Use of an AI Generator such as ChatGPT, iA Writer, MidJourney, DALL-E, etc. is **explicitly prohibited** unless otherwise noted by the instructor. The information derived from these tools is based on previously published materials. Therefore, using these tools without proper citation constitutes plagiarism. Additionally, be aware that the information derived from these tools is often inaccurate or incomplete. It's imperative that all work submitted should be your own. Any assignment that is found to have been plagiarized or to have used unauthorized AI tools may receive a zero and / or be reported for academic misconduct. By submitting assignments in this class, you pledge to affirm that they are your own work and you attribute use of any tools and sources.

Turnitin

This course will utilize the Turnitin plagiarism detection software. A Turnitin link will be available anywhere written work is to be submitted in the course. Find out more about using Turnitin.

Late or Missed Assignments

Any written assignment must be completed and submitted via Blackboard by their assigned time. Assignments turned within 24 hours of due date will receive a 10% deduction. Assignments turned within 48 hours of due date will receive a 20% deduction. Anything more than 48 hours will not be accepted and receive a 0. Students are responsible for anticipating that technology can often fail and should be in communication with the instructor if necessary, PRIOR to the deadline. Assignments cannot be submitted via email unless communicated with the instructor ahead of time. If assignment is emailed without prior approval, assignment will immediately receive 20% deduction. You are encouraged to confirm that your assignment has been received via blackboard.

Make Up Work: In the event of extreme circumstances (e.g. illness, jury duty, loss of loved one), you must notify me within 24 hours of a missed assignment. We will work together develop a plan to complete your missed work, when appropriate. Documentation may be required at the discretion of the instructor.

If a scheduled assignment falls on a religious holiday or if you are traveling/participating in a university sponsored activity that interferes with a due date, please let me know prior to the due date. We will work together to develop a plan for you to complete the assignment(s).

Grading

Assignment	Point Breakdown
Syllabus Quiz	10
CITI Training	10
Quizzes (13)	130
Lab Worksheet (13)	130
Midterm Exam	100
Survey Project	200
Final Exam	120
Total	700

A letter grade of A, B, C, etc. will be assigned based on the following scale: A = 90% or better (626 points or higher); B = 80-89% (556 points or higher); C = 70-79% (486 points or higher); D = 60-69% (416 points or higher); F = 100 anything lower than 59% (415 points or lower).

Final grades are not negotiable. If you are upset about a grade on an assignment, you need to set up a meeting with me to discuss that within a week of the published grade of the assignment. After that, I will not consider a grade dispute. *I especially do not respond to end-of-semester e-mails that request unearned grade bumps*.

Department of Psychology Writing Policy

As a student in this course, you will be expected to display university-level writing, which includes completing course assignments that meet the following basic writing criteria. Specifically, all written assignments completed for this course should include:

- clear transitions from sentence to sentence and idea to idea (e.g., paper is organized/flows well);
- verb tense consistency;
- clear and unambiguous sentences and ideas;
- writing that is free of typos, spelling errors, and major grammatical errors;
- properly formatted paper including headings, citations and references, per the 7th edition of the APA manual.

This is by no means an exhaustive list of basic writing skills, but will give you an idea of what we are looking for in our papers. If you feel you need help with your writing, you are encouraged to seek assistance from the writing center on campus (http://www.siue.edu/is/writing) or utilize one of the many online resources they have identified to help students (http://www.siue.edu/lss/writing/resources.shtml).

If your graded written assignments fail to meet the basic writing requirements listed above (and any others found to be appropriate by your instructor), the instructor will stop the grading process and return the paper to you (see below for the specific policy for this class).

• The penalty for unacceptable writing in this class is as follows: If more than three writing errors are found on any one page of a written assignment, grading will cease, and the student's paper will be returned with a grade equal to 50% of the total point value for the assignment.

University Policies

Services for Students Needing Accommodations

Students needing accommodations because of medical diagnosis or major life impairment will need to register with Accessible Campus Community & Equitable Student Support (ACCESS) and complete an intake process before accommodations will be given. Students who believe they have a diagnosis, but do not have documentation, should contact ACCESS for assistance and/or appropriate referral. The ACCESS office is located in the Student Success Center, Room 1203. You can also reach the office by emailing us at myaccess@siue.edu or by calling 618-650-3726. If you feel you would need additional help in the event of an emergency situation, please notify your instructor to be shown the evacuation route and discuss specific needs for assistance. It is your responsibility to communicate with me ahead of time of what accommodations you need. Just sending me an ACCESS letter is not sufficient, you have to communicate it with me.

Diversity and Inclusion

SIUE is committed to respecting everyone's dignity at all times. In order to learn, exchange ideas, and support one another, our virtual and physical classrooms must be places where students and teachers feel safe and supported. Systems of oppression permeate our institutions and our classrooms. All students and faculty have the responsibility to co-create a classroom that affirms inclusion, equity, and social justice, where racism, sexism, classism, ableism, heterosexism, xenophobia, and other social pathologies are not tolerated. Violations of this policy will be enforced in line with the SIUE Student Conduct Code.

The Center for Student Diversity & Inclusion https://www.siue.edu/csdi is an excellent resource for students for support and community. Any person who believes they have experienced or witnessed discrimination or harassment can contact Ms. Jamie Ball, Director in the Office of Equal Opportunity, Access and Title IX Coordination at (618) 650-2333 or jball@siue.edu. There is also an online form for reporting bias incidents at

https://cm.maxient.com/reportingform.php?SIUEdwardsville&layout id=10.

Additional Support

Academic and Other Student Services

As an enrolled SIUE student, you have a variety of support available to you, including:

- Lovejoy Library Resources
- The Writing Center
- Academic Advising

- Campus Events
- Counseling Services

If you find that you need additional support, please reach out to me and let me know.

Cougar Care

Dealing with the fast-paced life of a college student can be challenging, and I always support a student's decisions to prioritize mental health. Students have access to counseling services on campus (Student Success Center, 0222). Make an appointment by visiting <u>cougarcare.siue.edu</u> or by calling 618-650-2842.

General Health Measures

<u>Mental Health Resources</u>: SIUE is now partnered with <u>TimelyCare</u> to deliver a new virtual health and well-being platform for students. Through either a mobile app or your desktop, TimelyCare provides 24/7 access to virtual care from anywhere in the United States at no cost. Visit <u>timelycare.com/SIUE</u> or download the TimelyCare app from your app store and register with your school email address. You can then start visits from any web-enabled device – smartphone, tablet, laptop, or desktop – anywhere in the United States.

What services are available?

- TalkNow 24/7, on-demand emotional support.
- Scheduled Counseling Select the day, time, and mental health provider of your choice. (9 visits per year)
- Health Coaching Support for developing healthy behaviors.
- Basic Needs Support Get connected to low or reduced-cost community resources.
- Self-Care Content Yoga and meditation sessions and group conversations with our providers on a variety of health and well-being topics.

Recordings of Class Content

Faculty recordings of lectures and/or other course materials are meant to facilitate student learning and to help facilitate a student catching up who has missed class due to illness or quarantine. As such, students are reminded that the recording, as well as replicating or sharing of any course content and/or course materials without the express permission of the instructor of record, is not permitted, and may be considered a violation of the University's Student Conduct Code (3C1), linked here: https://www.siue.edu/policies/3c1.shtml.

Potential for Changes in Course Schedule or Modality

There remains a possibility that planned classroom activities will need to be adjusted. Depending on circumstances and following state-issued recommendations, potential changes include alterations to distancing requirements, course modality (e.g., transition from face-to-face to online, hybrid, or hy-flex, mask wearing, in-course activities, etc). These changes would be implemented to ensure the successful completion of the course while preserving health and safety. In these cases, students may be provided with an addendum to the class syllabus that will

supersede the original version. If the course schedule or modifications significantly alter expectations, a new syllabus will be issued.

Week/Date	Topic	Reading	Assignments Due by 11:59 p.m. Sunday
Week 1: 8/19 & 8/21	220 Review		
Fri 8/23 - Lab	Group Project Review		Syllabus quiz, Lab worksheet, Weekly Quiz
Week 2: 8/26 & 8/28	220 Review * may start experimental design	R.M. Ch. 7	
Fri 1/19 - Lab	Social Media Article Summary		Lab worksheet, weekly quiz, CITI Training *due 9/3 at noon
Week 3: 9/2 & 9/4	No Class 9/2 (Labor Day) Experimental Research Design	R.M. Ch. 7	
Fri 9/6 - Lab	Experimental Design/ Group Assignments		Lab worksheet, weekly quiz,
Week 4: 9/9 & 9/11	Sampling Distribution	Stats Ch. 7	
Fri 9/13 - Lab	Lit Review Search		Lab worksheet, Weekly Quiz,
Week 5: 9/16 & 9/18	Hypothesis Testing	Stats Ch. 8	
Fri 9/20 - Lab	Article Summary		Lab worksheet, weekly quiz,
Week 6: 9/23 & 9/25	T-Test	Stats Ch. 9	
Fri 9/27 - Lab	Writing Day		Lab worksheet, Weekly Quiz,Draft #1 Intro
Week 7: 9/30 & 10/2	Review & Catch up		
Fri 10/4 – Lab – no meeting this week	MIDTERM EXAM (Open Thursday at 12am and closes Friday at 11:59 p.m.; 75 minutes to take exam).		
Week 8: 10/7 & 10/9	Between Subjects Design	R.M. Ch. 8	
Fri 10/11 – Lab	Experimental Design		Lab worksheet, Weekly Quiz,
Week 9: 10/14 & 10/16	Between Subjects T-Test	Stats Ch. 10	The first of the f
Fri 10/18 – Lab	SPSS Practice - Between		Lab worksheet, Weekly Quiz,
Week 10: 10/21&10/23	Within Subjects Design	R.M. Ch. 9	The first of the f
**asynchronous	Work on Construct		
Fri 10/25 - Lab	Experimental Design + Qualtrics		Lab worksheet, Weekly Quiz, *Final Construct due; Draft #2 (Intro + Method)
Week 11:10/28& 10/30	Within Subjects T-test	Stats Ch. 11	
Fri 11/1 - Lab	SPSS Practice - W/In		Lab worksheet, Weekly Quiz,
Week 12: 11/4 & 11/6	No Class 11/4 – GO VOTE! Review & Catch up		
Fri 11/8 - Lab	SPSS Review		Lab worksheet, Weekly Quiz,
Week 13: 11/11&11/13	ANOVA	Stats Ch. 12	
Fri 11/15 - Lab	Interpreting Data		Lab worksheet, Weekly Quiz, Draft #3,(Intro + Method + Results)
Week 14: 11/18 & 11/20	Factorial ANOVA	R.M. Ch.	
Fri 11/22 - Lab	Writing Day / Preparing for Project		Lab worksheet, Weekly Quiz
11/25 – 11/29	Thanksgiving Break - No Class		
Week 15: 12/2 & 12/4	Review & Study		
Fri 12/6- Lab	Project Presentations		Final Paper Peer Eval Form due 12/6 at 11:59 p.m
Week 16 FINALS WEEK	11:59 p.m.; 3 hours to take	exam)	12/9 at 12am, closes Wednesday 12/11 at

Subject to change notice: All material, assignments, and deadlines are subject to change with prior notice. It is your responsibility to stay in touch with your instructor, review the course site regularly, or communicate with other students, to adjust as needed if assignments or due dates change.