PSY 395: Research Design and Measurement in Psychological Research

Summer Session II, 2020: Lecture: Asynchronous Online Video Lab: Tuesday & Thursday 10:00am – 10:50am via Zoom 3.0 Credit Hours

Part 1: Course Information

Instructor Information

Instructor: Brian Brutzman, M.A. BCBA Office Hours: Tuesdays 11:00am – 12:00pm via Zoom or by appointment E-mail: <u>brutzman@msu.edu</u>

Textbook & Course Materials

There is one required textbook for this course:

Morling, B. (2017). *Research methods in psychology: Evaluating a world of information (*3rd ed.), New York, NY: Norton.

Course Webpage

The course webpage is located on D2L (<u>https://d2l.msu.edu/</u>). On this page, you'll find important course information including materials from class lectures and grades.

Course Description & Objectives

Welcome to Psychology 395! This course is designed to build your skills in the various steps that it takes to conduct a research project in psychology. There are 5 main objectives that will be accomplished through a series of class lectures, labs, and assignments. This course will help you:

- 1. Learn to develop research questions and generate hypotheses
- 2. Understand the principles of measurement necessary to conceptualize and operationalize key psychological phenomena
- 3. Learn about different ways to collect data to examine your research questions and hypotheses
- 4. Select, perform, and interpret statistical analyses to test your hypotheses
- 5. Effectively communicate your results through scientific presentation and writing

By accomplishing these objectives, you will not only learn how to produce psychological research but will also learn how to be a savvy consumer of psychological research.

Prerequisite

Because PSY 395 is a research methods class, it will involve applying statistics that you learned about in PSY 295 such as correlations, t-tests, ANOVAs, and/or basic regression. Don't worry! We'll be reviewing these statistical tests in class lectures and in labs. However, if it's been awhile since you have taken statistics, you'll likely benefit from

reviewing this material. If you have any specific concerns about your understanding of the material from PSY 295, please don't hesitate to contact me.

Part 2: Course Activities and Grading

Grading

There are **500 points** available to earn in this class. The breakdown of course points and % of final grade by activity are provided below:

Activity	Points	% of Final Grade
1 Regular Exam	100 points	20%
1 Final Exam	100 points	20%
Final Paper	125 points	25%
2 Paper Assignments	50 points each (100 total points)	20%
In-Lab Group Presentation	50 points	10%
Lab Attendance (up to 10 labs)	2.5 points each (25 total points)	5%
Total	500 points	100%

Your final grade will be based on the number of points you have earned on course activities:

Grade	Points
4.0	450 – 500 points
3.5	425 – 449.9 points
3.0	400 – 424.9 points
2.5	375 – 399.9 points
2.0	350 – 374.9 points
1.5	325 – 349.9 points
1.0	300 – 324.9 points
0.0	Less than 300 points

<u>I will adhere strictly to these cut-offs for grades.</u> At the end of the semester, if you believe that I made an error in calculating your grade, please let me know. I will check your grade, and I will change it if I have made an error. This is the only circumstance under which I will change a grade. Under no circumstance will I "bump up" your grade or give you a special extra credit opportunity. I never do this, so please don't ask. There will be no exceptions.

Course Activities

Exams. Two exams will be given in class – one at roughly the midway point in Summer Session II, (7/20), and one final on the last day of class (8/13). Both exams will be administered asynchronously online via D2L and will be available to take for a limited period of time. Exam 1 roughly covers the first half of the material presented in lecture and lab and the final exam will cover the second half. The final exam WILL NOT BE

CUMULATIVE. Each exam will account for 20% of your final grade. Each exam will include multiple-choice and/or true/false questions. Students who require additional time for test taking should have their RCPD VISAs to me at least two weeks before the first test is administered so that accommodations can be made.

<u>Makeup Exams:</u> If you miss an exam, you can take a makeup exam <u>only</u> if you have a valid, documented excuse (e.g., a note from the dean, a note from your doctor recommending that you not attend class). Any notes must explicitly state that "This student was unable to take the exam on (date) because ______." Simply having a bad cold is not an acceptable excuse. The note cannot come from someone in your family. You must notify the instructor that you have a valid excuse by the end of the day of the exam or you will not be allowed to take the makeup exam. There are no exceptions to these rules.

If you cannot take the exam because of a religious holiday, required participation in a university-sanctioned event (e.g., a commitment for a sports team), or some other acceptable event that can be foreseen, you must notify me **at least two weeks in advance of the exam day**. Absence from an exam for any other reason – family obligations, job interviews, and vacations – will result in a grade of 0 for that exam.

Final Paper. To help you get hands-on experience with the process of engaging in research in psychology from start to finish, you'll be conducting a final research project. Don't worry! To make the survey project manageable, you'll be working collaboratively in research teams with 3 to 4 other members of your lab. Several lab sessions are devoted to this larger project and there are several smaller assignments that are the building blocks for this larger assignment. These assignments will allow you to gain and incorporate feedback on these building blocks before you turn in your final paper. Please note: Although you'll be working in teams, your final survey paper must be completed independently and should reflect your own, original work.

This paper will involve writing a full APA-style research paper that describes your research project. As part of this paper, you will include a rationale for your study, hypothesis, a method section, a results section, and a discussion that includes an interpretation of your results and the limitations of your study. A detailed rubric will be provided on D2L so that you know exactly what elements to include in the final project. This final survey paper is worth 25% of your grade.

Assignments. There are course assignments designed to help you learn how to design and conduct a psychological research study. Each assignment is worth 10% of your grade. These assignments include the following:

- Assignment 1 Project Rationale and Hypothesis: You will write a project rationale (up to 3 pages) outlining the study constructs you will be examining in your survey project along with their hypothesized associations. Additionally, you'll provide a theoretical rationale for these associations (see rubric for more details).
- 2. Assignment 2 Method Section: You will write a method section (up to 3 pages) describing the sample, procedures, measures, and analytic strategy for your survey project (see rubric for more details).

For all assignments that involve writing or presenting results, a more detailed assignment sheet and grading rubric will be provided on D2L. By carefully reviewing and following these rubrics, you can increase your probability of success in the

course. Please note: Although you'll be working in teams to develop these assignments, all written assignments must be completed independently and should reflect your own, original work.

In-Lab Group Presentation. Each lab team will present findings from their final project in-lab during Week 7. Evaluation of the group presentations will focus on how well your group communicates the major components of your project (i.e., rationale, hypotheses, methods, results, discussion) to the rest of your lab. Team members will also rate each other on the extent to which each member helped develop and work on the final presentations and this will be factored into your grade. These presentations are worth 10% of your grade.

Lab Attendance. Attendance will be taken during labs and will count for 6% of your grade. You will receive 2.5 points per lab that you attend for up to 10 labs during the semester. Because there are more than 10 labs during the semester, you can miss 1 or 2 labs without losing points.

Lecture Participation

Although you will receive points for attending labs in this class, due to the asynchronous online format, it will not be possible to take attendance for lecture. However, Dr. Christopher Nye will be presenting materials in prerecorded lectures that will be vital for your success on class assignments, your survey project, and the exams. Therefore, if you want to do well in class, it is in your best interest to stay up to date with lectures! Please let me know via email or in lab if any lecture material was unclear.

Class Climate

I'm looking forward to working with each of you this summer! To make the labs conducive to learning, please make sure to:

- 1. Log in on time to labs. Arriving on time will ensure you don't miss important information.
- 2. **Minimize distracting behaviors.** Turn off your cell phones or other devices that might make noise. Refrain from having side conversations. Avoid engaging in other distracting behaviors, and please keep your microphone muted unless you are meeting in small groups or have something to contribute/a question to ask.
- 3. **Ask questions.** If you don't understand something in lecture or lab, chances are your classmates don't either! Asking questions enriches everyone's learning experience.
- 4. Be respectful to others. This includes your classmates and me!

Late Work Policy

Assignments must be turned into the appropriate folder provided on D2L (under Assessments – Assignments) at the time indicated on the syllabus. **Note: If an assignment is listed as due in lab on the syllabus, it means it is due by the start of your assigned lab section during that week. No late assignments or projects will be accepted!**

E-mail Policy

E-mail is the best way to get a hold of me. However, please use the following guidelines when e-mailing:

1) First, ask yourself this question: "Can this question be answered by looking in the syllabus or looking on the D2L course site?"

2) If unable to find the answer yourself, please email me or send me a message on D2L. Use PSY 395 in the subject line. That makes it clear you are a student in this course asking a question. This also helps to prevent e-mails from going directly to the junk folder.

3) Please sign your e-mail with your full name, so I know who you are.

4) Check your e-mail regularly! During the course, I will e-mail you OFTEN with announcements and reminders. Please read these e-mails as soon as you receive them, and please check your e-mail regularly.

Academic Honesty

<u>Article 2.III.B.2</u> of the SRR states: "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." In addition, the Psychology Department adheres to the policies on academic honesty specified in General Student Regulation 1.0, <u>Protection of Scholarship and Grades</u>; the all-University Policy on <u>Integrity of Scholarship and Grades</u>; and <u>Ordinance 17.00</u>, Examinations.

You are expected to develop original work for this course; therefore, unless authorized, you are expected to complete all course assignments, including homework, lab work, quizzes, tests and exams, without assistance from any source (except as specified in the assignment). This also means that you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the www.allmsu.com Web site to complete any course work in this course. In addition, plagiarism of written work is forbidden. It includes taking the work of another individual or source and presenting it as your own. This is considered plagiarism even if the source has given you permission to use their work, or the work is in the public domain (e.g., on the web). Any student who violates these rules will receive a penalty grade, possibly a failing grade on the assignment or in the course and will be reported to the Office of Academic Affairs and the Office of Student Affairs. See also: https://www.msu.edu/~ombud/academic-integrity/student-fag.html Contact me if you are unsure about the appropriateness of your course work.

Accommodations for Students with Disabilities

Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at <u>rcpd.msu.edu</u>. Once your eligibility for an accommodation has been determined, you will be issued a Verified Individual Services Accommodation ("VISA") form. Please present this form to me at the start of the term

and/or **two weeks prior to the accommodation date** (test, project, etc.). Requests received without sufficient lead time will not be honored.

If you require testing accommodations (additional time, etc.) you must contact me and present your VISA at least two weeks before the exam date to schedule an alternative exam. Typically, I will schedule for you to take the exam during a time that is mutually convenient. If you are unable to make any of those times, or that option does not meet your VISA accommodations, you may be able to schedule to take your exam at the RCPD office. In either case, the exam must be scheduled well in advance, so you need to adhere to the two-week prior notification requirement.

Academic Assistance

This is a university and you are expected to produce college level work. If you have any trouble with assignments or the material covered in class, please make an appointment to speak with me as soon as possible. We'd like to see you succeed in class and can work to help find solutions when you are having difficulties with the course materials! Additionally, the university has resources to assist students, such as the Campus Tutorial Center, the Campus Writing Center, Adult Student Services, and more. A lot is expected of you, but the university wants to help you to produce your best work.

Limits to Confidentiality

Please be aware that class materials are generally considered confidential pursuant to the University's student record policies. However, all University employees, including instructors, cannot maintain confidentiality when it conflicts with their responsibility to report certain issues based on external legal obligations or to protect the health and safety of MSU community members and others. As the instructor, I must report the following information to other University offices (including the Office of Inclusion and Department of Police and Public Safety) if you share it with me:

- Suspected child abuse/neglect, even if this maltreatment happened when you were a child,
- Allegations of sexual assault or sexual harassment when they involve MSU students, faculty, or staff, and
- Credible threats of harm to oneself or to others.

The Office of Inclusion will reach out to you via a confidential email, to see if you would like to pursue legal action and to provide you with additional university resources. You have the right to choose whether or not you would like to utilize any of these services or even respond to the university's email. If you would like to talk about these events in a more confidential setting you are encouraged to make an appointment with the MSU Counseling Center (https://counseling.msu.edu).

Turnitin

Consistent with MSU's efforts to enhance student learning, foster honesty, and maintain integrity in our academic processes, I have chosen to use a tool called Turnitin to compare your papers with multiple sources. The tool will compare each paper you submit to an extensive database of prior publications and papers, providing links to possible matches and a 'similarity score.' The tool does not determine whether plagiarism has occurred or not. Instead, I will make a complete assessment and judge

the originality of your work. All submissions to this course may be checked using this tool.

You should submit papers to Turnitin Dropboxes **without identifying information included in the paper** (e.g., name or student number), the Desire 2 Learn system will automatically show this information to me when I view the submission, but the information will not be retained by Turnitin. If you forget and submit your paper with your identifying information on it, it will be retained in the Turnitin repository.

All submissions to this course will be checked using Turnitin. In choosing to use Turnitin in our class, I have agreed to follow five guidelines. They are:

- 1. I will use Turnitin as part of a balanced approach to encourage academic integrity and foster student success.
- 2. I will openly disclose use of Turnitin in this course on the syllabus and at the time assignments are announced.
- 3. For a given assignment, I will use Turnitin for all papers.
- 4. I will make the final determination of originality and integrity.
- 5. To ensure privacy, I will ask students to remove identification (e.g., names and student numbers) from submissions.

If you have any questions about the use of Turnitin in this course, please bring them to my attention.

Drops and Adds

The last day to add this course is **7/1/20**. The last day to drop this course with **a 100** percent refund and no grade reported is **7/10/20**. The last day to drop this course with no refund and no grade reported is **7/22/20**. You should immediately make a copy of your amended schedule to verify you have added or dropped this course.

Acknowledgement

I would like to thank Dr. Jennifer Watling Neal and Dr. Christopher Nye for providing all course materials and guidance on the proper instruction of this class.

Part 4: PSY 395 Course Schedule for Summer 2020

Disclaimer: On the following pages you will find a tentative schedule of when we will cover the topics in lecture and lab. However, as the instructor, I reserve the right to adjust this schedule according to the pace of the course and student needs. This also includes making any changes that I deem necessary to the details and/or policies listed in this syllabus. Check D2L regularly to keep up with the topics and for notices of any changes.

Week	Date	Торіс	Readings
Week 1 Lecture	6/29 – 7/3	Introduction Scientific Reasoning	Chapter 1 Chapters 1 and 2
Week 1 Lab	Tuesday 6/30 Thursday 7/2	1 st in Person/Class Objectives JASP Stat Tutorial/Group Assn.	Syllabus
Week 2 Lecture	7/6 – 7/10	Ethics in Psychological Research Basic Statistics	Chapter 4 Morling p.457-504
Week 2 Lab	Tuesday 7/7 Thursday 7/9	JASP Datasets & Form Hypotheses Descriptive & Inferential Stats w/JASP	
Week 3 Lecture	7/13 – 7/17	Measurement	Chapter 5
Week 3 Lab	Tuesday 7/14	Reliability & Validity Assignment #1 DUE at beginning of lab on Tuesday 7/14	
	Thursday 7/16	Wrap up/Exam Review	
Week 4 Exam	Monday 7/20	Exam #1	
Week 4 Lecture	7/20 – 7/24	Surveys	Chapter 6
Week 4 Lab	Tuesday 7/21 Thursday 7/23	Writing Survey Questions Writing Methods	
Week 5 Lecture	7/27 – 7/31	Sampling Experiments	Chapter 7 Chapters 10-12
Week 5 Lab	Tuesday 7/28 Thursday 7/30	Strategies for Data Analysis Student Data Analysis Assignment #2 DUE at beginning of lab on Thursday 7/30	
Week 6 Lecture	8/3 - 8/7	Correlational Research Quasi-Experimental Research	Chapters 8 and 9 Chapter 13
Week 6 Lab	Tuesday 8/4 Thursday 8/6	Writing Results Final Exam Review	
Week 7 Lecture	8/10 - 8/13	Wrap up any outstanding material	

Week	Date	Торіс	Readings
Week 7 Lab	Tuesday 8/11	Group Presentations FINAL PROJECT DUE by start of Lab 8/11	
Week 7	Thursday 8/13	FINAL EXAM – Last Day of Class	