

PSY 3091: Research Methods and Design II **Spring 2020**

10:55-12:05 (Section 1), 12:15-1:20 (Section 2)
Evans 114 (M/W), Lib220 Bresee Lab (Fridays)

Instructor: Rosemond T. Lorona, Ph.D.

Office: Culbertson 214

Office Hours: M/W/F: 9-9:40am, M: 3-5pm, Th: 9:30-11am, 1-3pm (and by appointment)

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Teaching Assistant: Dakota Bott (dakotabott123@pointloma.edu)

TA Office Hours: T/R 12:30-1:30pm in Culbertson 208/209 (available for general writing and research help)

PLNU Mission

To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

Course Description

As you learned in the first half of this course sequence, the field of psychology is based on research and analysis of data. Now that you have a foundation in research and statistics, it is time to apply your knowledge. This course will build on the previous semester by focusing on conducting original research in psychology. Doing science well and communicating science to others are skills that are relevant for people in a variety of life and career trajectories. You will be responsible for the project from start to finish, including collecting data, analyzing and interpreting data, and communicating your research in written and verbal form. You will also focus on research ethics, APA style writing, and more advanced research designs and considerations. You will continue to practice statistical analyses in R, interpret statistical analyses, and write about statistics using APA style. Becoming a producer of psychological research will make you a better consumer of psychological research.

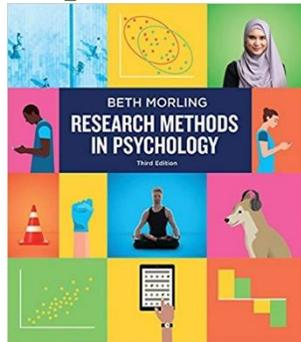
Course Goals

- Identify issues in statistics and research, such as bias, power, error, ethics, and validity, and identify possible solutions to these issues
- Complete a psychological study or experiment that answers a research question of interest
- Complete statistical analyses in R and correctly interpret and form conclusions based on the results of statistical analyses
- Read and synthesize information from high quality peer-reviewed research
- Communicate original research in written form using APA style.
- Orally communicate your research and conclusions to colleagues.

Unit Requirement

This is a 4-unit course delivered over 15 weeks. As such, we spend approximately 3.5 hours per week in class and it is expected that you spend approximately 8 hours each week outside of class reading, taking notes, viewing lectures, studying, completing assignments, and preparing for class. Dedicating adequate time to your learning will help you succeed and is especially important if you want an A in the course. Think of it as: hours spent → points earned. Specific details about how the class meets the credit hour requirement can be provided upon request.

Required Texts



Research Methods in Psychology: Evaluating a World of Information (3rd Ed) by Beth Morling

ISBN-13: 978-0393630206; ISBN-10: 039363020X

Learning Statistics with R, version 0.6. by Danielle Navarro.

Download for free at <https://learningstatisticswithr.com>

Recommended Text

Publication Manual of the American Psychological Association (6th Ed.)

ISBN-13: 978-1433805615; ISBN-10: 1433950618

Required Computer Software (free)

RStudio, version 1.2.1335 or higher

First, download R version 3.6.1 (base program) on your personal laptop for free at

<https://www.r-project.org/> and then download RStudio for free at

<https://www.rstudio.com/>

Alternatively, if you are unable to download the needed versions of these programs on your personal computer, it is expected you will use university computers.

Assignments and Points

Professionalism and Engagement (40 points): Because this course will utilize a lot of group work and peer review, you will show professionalism and engagement by coming to class prepared for peer review and giving thoughtful feedback to your peers on days when this is a focus. Thirty points will be determined by your research teammates. Teammates will determine your grade based on attendance, professional communication, attentiveness to details and needs of the group, and overall contribution to data collection and the research process.

Learning Checks (10 @ 10 points each): There will be multiple choice, fill-in-the-blank, and/or short answer questions on each learning check that will be from readings and lectures. There will be 12 learning checks and your two lowest scores will be dropped. Missed learning checks due to absence or tardiness (for any reason) cannot be made up and will be counted as a zero. It is your choice to use dropped learning checks for days that you are absent, tardy, and/or do not have time to adequately prepare. Questions that are submitted on Canvas by 7am the day of a learning check will be answered in class prior to the learning check, as time allows. Questions submitted after the deadline may not be addressed. As time allows, more questions can be addressed in class following the learning check.

Written Assignments (80 points): You will have 2 data projects that will allow you to practice statistical analyses in R, statistical interpretations, and writing results in APA style. A table and/or figure will accompany the results. You will submit your R code, output (all graphs and output from console), and written responses on Canvas. You will also have assignments that are necessary for the completion of your research project. You will do an ethics training and an IRB proposal. Detailed directions for each assignment are on Canvas. Assignments are individual work; you are expected to complete the work on your own.

Research Manuscript Sections (60 points): Three sections (introduction w/ references, method, results) of your APA-style manuscript will be submitted throughout the semester. These are not meant to be “rough” drafts; these sections will count for points and will be graded according to the rubric on Canvas. Following grading, you may revise these sections for the final paper submission to earn more points on your final manuscript (see below). I will not read additional drafts of your writing – if you need writing help, you may go to the writing center/tutorial services or visit TA office hours.

Final Research Manuscript (100 points): Your APA-style manuscript will thoroughly describe your empirical research study from start to finish. The paper will include an APA style title page, abstract, introduction, method, results, discussion, table/figure, and references. Papers with 1+ missing sections will not be graded. More instructions and a rubric are on Canvas.

Final Learning Demonstration (90 points): We will celebrate all of our learning at the end of the semester. On the last day of class, you will demonstrate your learning by responding to written questions (multiple choice, short answer, and/or essay) that will require cumulative knowledge of research methods.

Research Group Presentation (30 points): Your group will present its research project to the class. The presentation should be 10 minutes total, with ~10 minutes for follow-up questions. The presentation will serve as a ‘practice’ for the Final Research Celebration, and this presentation will be graded so that you will be well-prepared for the research celebration. You should be able to accurately, clearly, thoroughly, and interestingly present your research project and be able to answer questions about your project. You will be graded individually and as a group.

Final Research Celebration (50 points): We will be celebrating the completion of your research by creating a conference-style poster presentation. You will be graded on the quality of your research poster and your ability to clearly describe your work and professionally engage with students and faculty. There will be no make-ups for students who are absent.

Extra Credit: You may earn up to 8 points of extra credit by submitting a reflection on what research and/or statistics means to you and your vocation. To earn more points, you should include reflection on the bigger picture such as how research/statistics connect to God, seeking truth, worldview, etc. Credit will only be given to assignments written in 12pt TNR with 1” margins and are between 1-1.5 double-spaced pages. Extra credit must be submitted by the day of the final learning demonstration with no exceptions.

Grading Scale (550 total points)

- A = 93-100%
- A- = 90-92.9%
- B+ = 88-89.9%
- B = 84-87.9%
- B- = 80-83.9%
- C+ = 77-79.9%
- C = 70-76.9%
- C- = 65-69.9%
- D+ = 62-64.9%
- D = 55-61.9%
- D- = 50-54.9%
- F = 49.9% or less

Grades will not be rounded up for individual students [students seeking a grade boost should complete extra credit and/or go to the writing center for extra help on written assignments]

Course Policies and Expectations

General and Attendance

- It is expected that you will read and take notes prior to class. Such practices will enable you to succeed on the learning checks and also fully participate in class activities.
- It is expected that you will take notes in class, regardless of whether a powerpoint is presented.
- Attendance will be taken at the beginning of the class period. If you get up and leave after roll has been taken, you will be counted absent unless you notify me before class begins. Absences will be accounted for and it is your responsibility to monitor them. I will honor the university's attendance policy: no matter the reason for absence, students missing 10% of class meetings (4 classes) may be filed for de-enrollment. Students missing 20% of class meetings (8 classes) may be de-enrolled without notice, or, after the university drop date, receive the appropriate grade for their work and participation. Excused absences due to university approved events as given in writing by university administration will be honored and will not count toward de-enrollment.
- If you miss class, you are responsible for obtaining [from a classmate] lecture material, class exercises, and all in-class announcements AND submit any assignments on time, if applicable.
- Assignments are individual work; you are expected to complete the work on your own unless otherwise specified.
- You may submit assignments early.
- You are responsible for all content/material that is found on Canvas, including announcements.
- Work submitted on Canvas must be in .doc or .docx file types only (unless otherwise specified). The student is responsible for making sure Canvas files work and go through Turnitin. Files that do not work or can't go through Turnitin will be considered late until the problem is rectified.

Technology

- I do not recommend the use of laptops for notetaking in this course. Written notes are more efficient for writing statistical symbols and also aid in memory recall. That being said, you may use laptops/iPads for notetaking as long as it does not become a distraction to yourself or others.
- Laptops are encouraged for purposes of doing statistical analyses, doing peer review, and reading scientific articles, although we will primarily do this in the computer lab.
- Recordings (audio or visual) of class are not permitted without written permission from the instructor.
- Cellphones should not be used in class.

Tardiness and Late Work

- If you are more than 15 minutes late to class, you will be counted absent (but you are welcome to sit-in on the class).
- Late work is accepted for 5 days, with a 10% deduction for each day, including weekend days. Deadlines are according to the schedule in the syllabus. Work that is submitted late due to tardiness to class is still considered late. Presentations and peer review material must be completed on the assigned day and cannot be submitted late.

Learning Check (LC) and Demonstration Information

- LCs/exams may consist of multiple choice, fill-in-the-blank, and/or short answer questions. You may be required to interpret and evaluate statistics, R output, and research conclusions in addition to demonstrating knowledge of relevant definitions and theories from lectures and required readings.
- Students must bring at least one working pencil, eraser, and pen to every learning check and demonstration.
- Students may not come and go during learning checks or demonstrations. If you need to leave the room *for any reason*, you must submit your LC/exam at that time.
- Backpacks must be closed with all electronics, including smart watches, turned off and out of sight. Students who use or look at a personal electronic device for any reason during an LC/exam will be penalized for academic dishonesty.
- If you are late to a LC/exam, you may take the LC/exam if you arrive prior to the first LC/exam being handed in. Tardy students will not be given extra time.
- LCs may not be made up for any reason. Two LCs are dropped at the end of the semester.
- Successful completion of this class requires attending the Research Celebration ('the final') **on its scheduled day**.
- If the Learning Demonstration is missed for any reason, the student may have an opportunity at an alternative time to demonstrate his/her learning and receive up to 70% credit on the opportunity.

Additional Info, University Resources and Policies

About Contacting Me. I welcome your questions (about class or otherwise) and would enjoy hearing from you throughout the semester. Do not hesitate to email me or take advantage of office hours. We can schedule meetings outside of office hours if needed. I will give prompt email replies during the day Monday - Friday. It is not guaranteed that I will read emails in the evenings and weekends, so please do not leave important questions for the last minute! If you have questions pertaining to R, please try to use your textbook and/or Google to troubleshoot before emailing me.

Copyright Policy. Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

Academic Integrity. Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. Academic dishonesty also includes such acts as cheating, fabrication of information, misrepresentations, having unauthorized possession of exams or acquiring/providing information about exams to offer/get an advantage. Academic dishonesty may lead to a zero for that assignment or examination, a zero for your professionalism grade, and/or an F for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See [Academic Policies](#) for definitions of kinds of academic dishonesty and for further information.

Accommodations. While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic accommodations. At PLNU, these students are requested to register with the Disability Resource Center (DRC), located in the Bond Academic Center. (DRC@pointloma.edu or 619-849-2486). After the student files the required documentation, the DRC, in conjunction with the student, will develop an adjustment plan (AP) to meet that student's specific learning needs. The DRC will thereafter email the student's AP to all faculty who teach courses in which the student is enrolled each semester. DRC students should speak with their professors during the first two weeks of each semester about the applicability of their AP in that particular course and/or if they do not desire to take advantage of some or all of the elements of their AP in that course.

Title IX Office. If you or someone you know would like help related to an experience of sexual violence including sexual assault, harassment, domestic violence, dating violence, stalking or other type of non-consensual sexual conduct, please contact the Title IX Coordinator at Point Loma Nazarene University, Caye Smith (619-849-2479). Reporting is also available on the Title IX website. The Title IX office understands the sensitive nature of these situations and can provide information about available on- and off-campus resources, such as counseling and psychological services, medical treatment, academic support, university housing and other forms of assistance. Staff members at the office will also explain your rights and the judicial process options, if you choose to file a complaint. If you or someone you know feels unsafe or may be in imminent danger, please call the PLNU Department of Public Safety (619-849-2525) or San Diego Police Department (9-1-1) immediately.

Wellness Center. If you or someone you know would like help related to a physical or mental health problem, (e.g., depression, anxiety, difficulty focusing on school or managing daily needs, grief, trauma resolution, sleep or eating changes, etc.), please contact the Wellness Center. The Wellness Center exists to provide students with services pertaining to health, broadly. Walk-ins are accepted, or appointments can be scheduled. Visit the First Floor of Nicholson Commons or call 619-849-2574. If there is an emergency situation after hours, please call the PLNU Department of Public Safety (619-849-2525) or San Diego Police Department (9-1-1) immediately.

Changes to the Syllabus: This document is subject to changes, including due dates in the schedule. I will communicate changes in class, on Canvas, or both. It is the students' responsibility to maintain records of changes to this syllabus.

Week	Day	Readings and Activities (Complete Prior to Class)	Learning Checks (LC)/ Assignments Due
Week 1 (Jan 14 - 17) Research Ethics	T		
	W		
	F	RMP Ch 4 Lecture 1 Canvas Questions	LC 1 (Ch1 and Syllabus)
Week 2 (Jan 20 - 24) Formalizing the Research Plan	M	<i>No Class</i>	<i>MLK Jr Day</i> Ethics Training Due (submit certificate to Canvas)
	W	Qualtrics, QRPs Reading Lecture 2 Canvas Questions	LC 2
	F		
Week 3 (Jan 27 - 31) A Design the Makes Sense	M	RMP Ch 6 Lecture 3 Canvas Questions	LC 3
	W		Tentative List of Measures due in class
	F		
Week 4 (Feb 3 - 7) Sampling	M	RMP Ch. 7 Lecture 4 Canvas Questions	LC 4 IRB draft due to Dr. Lorona (1 per group)
	W		
	F		Submit IRB (1 per group, send copy to teammates and Dr. Lorona)
Week 5 (Feb 10 - 14) Intro to APA, Writing the Literature Review and Method	M	RMP pg 505-539 (APA style) Lecture 5 Canvas Questions	LC 5
	W		
	F		Introduction Outline due in class (PR)
Week 6 (Feb 17 - 21) Associations	M	RMP Ch. 8 Lecture 6 Canvas Questions	LC 6
	W		
	F		Introduction and References Due
Week 7 (Feb 24 - 28) More on Associations - Regression	M	RMP Ch. 9 Lecture 7 Canvas Questions	LC 7
	W		
	F	<i>No class</i> Lecture 7b	Method Due
Week 8 (Mar 2 - 6) Experiments	M	RMP Ch. 10 Lecture 8 Canvas Questions	LC 8
	W		
	F		APA Regression Project Due
Week 9 (Mar 9 - 13)	M	<i>No Class</i>	<i>Spring Break</i>
	W	<i>No Class</i>	<i>Spring Break</i>

	F	<i>No Class</i>	<i>Spring Break</i>
Week 10 (Mar 16 - 20) More on Experiments	M	RMP Ch 11 Lecture 9 Canvas Questions	LC 9
	W		
	F		APA ANOVA Project Due
Week 11 (Mar 23 - 27) Experiments with 2+ IVs	M	RMP Ch 12 Lecture 10 Canvas Questions	LC 10
	W		
	F		Data Due
Week 12 (Mar 30 - Apr 3) Interpreting and Evaluating Your Data	M	RMP Ch. 13 Lecture 11 Canvas Questions	LC 11
	W		Participants section + Primary Results Due in class (PR)
	F		Results Due
Week 13 (Apr 6 - 10) Evaluating Your Data and Back to Big Picture	M	RMP Ch. 14 Lecture 12 Canvas Questions	LC 12
	W		
	F	<i>No Class</i>	<i>Easter</i>
Week 14 (Apr 13 - 17) Back to Big Picture and Communicating Work	M	<i>No Class</i>	<i>Easter</i>
	W		Discussion Due in class (PR)
	F		Abstract Due in class (PR)
Week 15 (Apr 20 - 24) Communicating Your Work	M	RMP pgs. 540-543	Final Research Paper Due by classtime (online AND paper copy in class)
	W		
	F		Group Presentations Order Poster, submit copy on Canvas
Week 16 (Apr 27 - May 1) Communicating Your Work and Review	M	Review RMP	Group Presentations
	W	Review RMP	
	F		Learning Demonstration
Wednesday, May 6, 4:30-6pm @ Colt Forum			Research Celebration

RMP = *Research Methods in Psychology* (Beth Morling)

PR = peer review. Come to class prepared to have your work assessed by a peer.

Lectures will be posted on Canvas under Modules. Submit your Canvas questions in the Module for that week.

Worksheets and Homework are due by 11:59pm unless noted otherwise