

Course Syllabus

[Jump to Today](#)

 Edit

Department of Psychology

PSY 3091



Research Methods and Statistics II

4 Units

Spring, 2024

Meeting

days: MWF

Instructor: Dr. Ross Oakes Mueller

Meeting

times:

8:30-

9:35am

Phone: [\(619\) 849-2905](tel:(619)849-2905) (tel: [\(619\) 849-2905](tel:(619)849-2905))

Meeting

location:

Evans Hall

114

E-mail: RossOakesMueller@pointloma.edu (<mailto:RossOakesMueller@pointloma.edu>)

Credit

Hours: 4

Units

Office hours: [Click Here to Schedule](https://www.google.com/calendar/selfcsstoken=UUhnNHJkMkNwcEFUfGRIZmF1bHR8OTFiNjhkZDM0NzRINTRIMWE5M2E2N)  <https://www.google.com/calendar/selfcsstoken=UUhnNHJkMkNwcEFUfGRIZmF1bHR8OTFiNjhkZDM0NzRINTRIMWE5M2E2N>

Final

Exam:

Wednesday, **Office Location:** Culbertson 213

May 1st at

2:00pm

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 becomes an expression of faith. Being of Wesleyan heritage, we aspire to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

Course Description

Study of design and of research in psychology and the use of statistics. Practice in the integration of design and statistics is included. Students finish a significant research project.

Course Goals/Objectives

Overview – The field of psychology requires a unique blend of competence both a) in practicing therapeutic **techniques** and b) in understanding and conducting **research**. This course aims to develop your language, logic, and skills related to the latter. Specifically, you will not only learn to **identify the basic tenets of research psychology**, but will learn to **locate, critique, synthesize, conduct, statistically analyze, and present psychological research**.

Locating Psychological Research – With the vast mountain of human knowledge becoming ever more accessible on the internet, most people simply trust in a global search engine (e.g., Google) to locate the answers to their questions. In fact, in a typical search, only 10% of people look past the first 10 search results to find the best answer for their question (Hearne, 2006). As you will soon see, these search results are often not the best source of quality information, and finding the best answer to your question usually requires a more careful “search” process. This course will provide you with the skills and opportunity to search through the vast field of psychological research to find *quality* articles and theories that relate to a topic that is of interest to *you*.

Critiquing Psychological Research – How often have you found two different articles or individuals making competing claims about reality? A thorough “literature review” will reveal multiple competing theories and ideas, each of which claim to be “valid.” Such confusion becomes especially important in a field such as psychology, in which we are trying to relieve suffering and promote growth. This course will help you to identify specific “criteria of validity,” and use them to understand and evaluate the published articles of others who have conducted research. In the current “Age of Information,” the ability to critically analyze competing truth claims and separate the so-called “wheat” from the “chaff” is absolutely necessary to navigate the flood of data available to you.

Synthesizing Psychological Research – So you’ve become a search-wizard, and have now located dozens of different articles on your topic of interest. But what do they all mean? How do they fit together? And, perhaps most importantly, What is missing? The flood of search results are like millions of puzzle pieces (many of which don’t even belong to your puzzle!). This course will help you in the process of becoming a modern “puzzle master,” learning to first sort relevant from irrelevant information, and then learning to put the pieces together into a “literature review” that makes sense of many different pieces of data. Finally, this course will help you to identify important missing pieces, and to develop research questions that could help fill in the blanks.

Conducting Psychological Research – Once you’ve figured out the important questions to ask, how do you go about answering them? In particular, how do you avoid the pitfalls of other “less valid” articles and researchers? In the previous course, you learned to develop and construct a small study of your own. This semester will involve using the skills you learned in PSY 390 to develop an empirically sound experimental study. A successful experiment typically involves implementing your surveys and manipulation(s) with a critical eye to details you might have missed when you first designed them, so, after initially constructing your study, you will pilot test it, and then revise it. It will also likely involve problem-solving, as you face obstacles to collecting your data that you might not have anticipated. Finally, as with the previous course, conducting psychological research will involve (continued) learning to work well within the context of a group. In fact, students in the past have found that the ability to work well with others is often the make-it-or-break-it factor that can create a successful research study.

Statistically Analyzing Psychological Research – “Statistics.” Before entering class last semester, you likely had little exposure to statistical analysis. After our introduction to statistics last semester, we will spend a portion of this semester reviewing what you have learned, and then practicing using statistics to analyze your data. My hope is that you leave the class feeling more enthusiastic about and competent in statistics than you are today. In fact, I will make it my thrice-weekly mission in life to convince you that not only research, but STATISTICS IS FUN! Like learning a second language, though, mastering statistics will take patience, persistence, courage, and time. Also like a second language, the mastery of these skills can be invaluable in making sense of the tremendous amount of information (both valid and bogus) with which we are presented daily. In our current “Age of Information,” the ability to critically analyze competing truth claims and separate the so-called “wheat” from the “chaff” is absolutely necessary to navigate the flood of data available to you. Statistics is a tremendously powerful tool in this process.

Presenting Psychological Research – As students of psychology, you are studying to become relative experts in this field of knowledge. You have been blessed with tremendous academic and technological privilege; and with this privilege comes a great responsibility to wield this information conscientiously. In a world that equates information with power, you now possess the power to either hurt or harm the world in profound ways. In short, the world needs the information you possess. Families need it. Churches need it. Suburban schools, inner-city programs, homeless shelters, all need what you have. And the only way that they can get it is if you learn to communicate it lovingly and coherently. This course will continue to provide you with the opportunity both to present your research, and to critically (and lovingly) analyze the research of your peers.

Student Learning Outcomes

- 1) You will increase your ability to appropriately select, understand, interpret, and critically evaluate relevant published articles of others who have conducted research.
- 2) You will learn and practice the implementation of an experimental research design, including troubleshooting problems that arise during your experiment.
- 3) You will develop a proficiency in writing in APA format by memorizing common formatting requirements, by practicing your application, and by identifying and editing your own formatting errors.

- 4) You will develop skills in collecting and “preparing” the data from online survey tools.
- 5) You will develop a working understanding of statistical analyses, including an understanding of the basic nature of statistical analyses, and the conditions under which each type of analysis is used.
- 6) You will learn to calculate, interpret, and write-up the results from a variety of statistical analyses, including: regression, chi-square, t-tests, and multiple types of ANOVAs.
- 7) You will continue to develop a proficiency in writing-up your study in a scholarly manner by receiving in-depth feedback regarding your writing, and by identifying and editing your own formatting errors.
- 8) You will gain experience and proficiency in conducting oral presentations of your work, and in providing helpful critical feedback to other students regarding their presentations.

The objectives will be achieved through watching online lectures, through participating in-class exercises, through your reading of the written materials, through the completion of quizzes and learning modules, and (most importantly) through active participation by you in the production of your own experimental project.

Whether these objectives have been achieved or not will be measured by your scores on homework, quizzes, exams, class participation, and both oral and written versions of your research project.

Course Credit Hour Information

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a 4 unit class delivered over 14 weeks. It is anticipated that students will spend a minimum of 37.5 participation hours per credit hour on their coursework. For this course, students will spend an estimated 150 total hours meeting the course learning outcomes. The time estimations are provided in the Canvas modules.

Canvas (Course Management System)

We will be using Canvas this semester. Canvas can be accessed via <http://canvas.pointloma.edu>. You will see the welcome screen and a login button. You will need your username/password before you can proceed to log in. If you don't know your username/password, please contact the help desk for assistance. Select the login button to proceed to the login screen. At the login screen, enter your username/password.

Required Texts/Materials

[American Psychological Association. \(2020\). *Publication Manual of the American Psychological Association*. \(7th ed.\). Washington, D.C.: Author. \(spiral bound\)](https://www.amazon.com/Publication-Manual-American-Psychological-Association/dp/1433832178)  **[\(https://www.amazon.com/Publication-Manual-American-Psychological-Association/dp/1433832178\)](https://www.amazon.com/Publication-Manual-American-Psychological-Association/dp/1433832178)**

Morling, B. (2021). *Research Methods in Psychology* (4th ed.). WW Norton. **Including InQuisitive (should still work from last semester)**

Download: [Goss-Sampson, M. \(2020\). *Statistical Analysis in JASP: A Guide for Students*](https://jasp-stats.org/wp-content/uploads/2020/11/Statistical-Analysis-in-JASP-A-Students-Guide-v14-Nov2020.pdf)  **[\(https://jasp-stats.org/wp-content/uploads/2020/11/Statistical-Analysis-in-JASP-A-Students-Guide-v14-Nov2020.pdf\)](https://jasp-stats.org/wp-content/uploads/2020/11/Statistical-Analysis-in-JASP-A-Students-Guide-v14-Nov2020.pdf)**

Download: [Navarro, D.J., Foxcroft, D.R., & Faulkenberry, T.J. \(2019\). *Learning Statistics with JASP: A Tutorial for Psychology Students and Other Beginners*](https://learnstatswithjasp.com/)  **[\(https://learnstatswithjasp.com/\)](https://learnstatswithjasp.com/)** **[\(full PDF here](https://tomfaulkenberry.github.io/JASPbook/ljsj.pdf)**  **[\(https://tomfaulkenberry.github.io/JASPbook/ljsj.pdf\)](https://tomfaulkenberry.github.io/JASPbook/ljsj.pdf)**

Grading

Group Participation	10%
In-Class Activities	15%
Mid-Week Homework & Quizzes	10%
Take-Home (Weekend) Homework	5%
Exams	25%
Research Paper	25%

Rough Draft of Results (4%)

Rough Draft of Discussion (4%)

Final Paper (17%)

Abstract, Introduction, Method, Results, Discussion, Tables, Figures

Final Presentations (In-Class [PowerPoint] & Poster – Caf Lane) 10%

Total 100%

ASSESSMENT AND GRADING

Grades will be based on the following:

A	B	C	D	F
A 93-100	B+ 87-89	C+ 77-79	D+ 67-69	F Less than 59
A- 90-92	B 83-86	C 73-76	D 63-66	
	B- 80-82	C- 70-72	D- 60-62	

All student grades will be posted in the Canvas grade book. It is important to read the comments posted in the grade book as these comments are intended to help students improve their work. Final grades will be posted within one week of the end of the class.

A minimum of 60% is needed to pass the course.

CONTENT WARNING

I acknowledge that each of you comes to PLNU with your own unique life experiences. This contributes to the way you perceive various types of information. In [class name], all of the class content, including that which may be intellectually or emotionally challenging, has been intentionally curated to achieve the learning goals for this course. The decision to include such material is not taken lightly. These topics include friendships, childhood attachment

relationships, spirituality, empathy and compassion for one's "enemy," and the process of forgiveness. If you encounter a topic that is intellectually challenging for you, it can manifest in feelings of discomfort and upset. In response, I encourage you to come talk to me or your friends or family about it. Class topics are discussed for the sole purposes of personal growth and expanding your intellectual engagement in the area of psychology, and I will support you throughout your learning in this course.

STATE AUTHORIZATION

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location.

Refer to the map on [State Authorization \(https://www.pointloma.edu/offices/office-institutional-effectiveness-research/disclosures\)](https://www.pointloma.edu/offices/office-institutional-effectiveness-research/disclosures) to view which states allow online (distance education) outside of California.

INCOMPLETES AND LATE ASSIGNMENTS

Part of good paper-writing is effective time-management strategies. We could all write better papers if we had unlimited time to do so. However, there are certainly life situations that may prevent you from turning in your paper on time. How to balance these two conflicting issues? In order to provide you with some flexibility, and nevertheless to ensure that all of your papers are evaluated on an "even playing field," I have created a tiered grading system for late work. **If you miss a deadline to turn in a paper, for any reason, you can still turn it in with a 5% deduction per day late. For example, you will have 24 hours past the due date to turn in the paper for a 5% deduction. After that, you then have up to 24 additional hours to turn it in for a 10% deduction, etc. Canvas automatically enforces the deduction at the second it becomes due, so be sure to plan ahead to turn in your paper **BEFORE** the time it is due. No papers will be accepted after the date on which the professor sends grades/feedback to the class for that paper.**

PLNU FINAL EXAMINATION POLICY

Successful completion of this class requires taking the final examination on its scheduled day. **The final examination for this class will occur on Wednesday, May 1st, 2024, from 2:00-4:00pm.** No requests for early examinations or alternative days will be approved.

PLNU 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.

PLNU ACADEMIC HONESTY POLICY

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. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See [Academic Policies](https://pointloma-public.courseleaf.com/tug-catalog/academic-general-policies/)  (<https://pointloma-public.courseleaf.com/tug-catalog/academic-general-policies/>) for definitions of kinds of academic dishonesty and for further policy information.

ARTIFICIAL INTELLIGENCE (AI) POLICY

You are allowed to use Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, GrammarlyGO, Marmot, Botowski) to generate ideas, but **you are not allowed to use AI tools to generate content (text, video, audio, images) that will end up in any work submitted to be graded for this course.** If you have any doubts about using AI, please gain permission from the instructor.

If you use any auto-proofreading software (e.g., Grammarly), I would strongly recommend that you take these three steps:

1. **do NOT use the advanced features** of GrammarlyGO (or other generative AI tools);

2. **do ALL of your original writing FIRST** (without Grammarly), **save a draft**, and **THEN apply Grammarly edits afterwards** (that way you and your professors can directly trace back what your writing looks like, and you have a draft of the paper that should be clear of all AI screening) and **save a second draft of your edited work**, and
3. **use a writing tracker** like "**Origin**  (<https://chromewebstore.google.com/detail/origin-by-gptzero-chatgpt/kgobeoibakoahbfnficpmibdbkdchap>) "**Origin**  (<https://chromewebstore.google.com/detail/origin-by-gptzero-chatgpt/kgobeoibakoahbfnficpmibdbkdchap>)  (<https://chromewebstore.google.com/detail/origin-by-gptzero-chatgpt/kgobeoibakoahbfnficpmibdbkdchap>)" which functions as a plug-in to Google Docs, and records your writing character-by-character, so your professors can see the entire creation process (in case you ever have a false-positive AI flag).

PLNU ACADEMIC ACCOMMODATIONS POLICY

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities. Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center (EAC@pointloma.edu or [619-849-2486 \(tel:619-849-2486\)](tel:619-849-2486)). Once a student's eligibility for an accommodation has been determined, the EAC will issue an academic accommodation plan ("AP") to all faculty who teach courses in which the student is enrolled each semester.

PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their AP in that particular course and/or if they do not wish to utilize some or all of the elements of their AP in that course.

Students who need accommodations for a disability should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. It is the student's responsibility to make the first contact with the EAC.

LANGUAGE AND BELONGING

Point Loma Nazarene University faculty are committed to helping create a safe and hospitable learning environment for all students. As Christian scholars we are keenly aware of the power of language and believe in treating others with dignity. As such, it is important that our language

be equitable, inclusive, and prejudice free. Inclusive/Bias-free language is the standard outlined by all major academic style guides, including MLA, APA, and Chicago, and it is the expected norm in university-level work. Good writing and speaking do not use unsubstantiated or irrelevant generalizations about personal qualities such as age, disability, economic class, ethnicity, marital status, parentage, political or religious beliefs, race, gender, sex, or sexual orientation. Inclusive language also avoids using stereotypes or terminology that demeans persons or groups based on age, disability, class, ethnicity, gender, race, language, or national origin. Respectful use of language is particularly important when referring to those outside of the religious and lifestyle commitments of those in the PLNU community. By working toward precision and clarity of language, we mark ourselves as serious and respectful scholars, and we model the Christ-like quality of hospitality.

You may report an incident(s) using the [Bias Incident Reporting Form](https://cm.maxient.com/reportingform.php?PointLoma&layout_id=5)  (https://cm.maxient.com/reportingform.php?PointLoma&layout_id=5).

SEXUAL MISCONDUCT AND DISCRIMINATION

In support of a safe learning environment, if you (or someone you know) have experienced any form of sexual discrimination or misconduct, including sexual assault, dating or domestic violence, or stalking, know that accommodations and resources are available through the Title IX Office at pointloma.edu/Title-IX (<http://pointloma.edu/Title-IX>). Please be aware that under Title IX of the Education Amendments of 1972, faculty and staff are required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact Counseling Services at counselingservices@pointloma.edu (<mailto:counselingservices@pointloma.edu>) or find a list of campus pastors at pointloma.edu/title-ix (<mailto:counselingservices@pointloma.edu>).

PLNU ATTENDANCE AND PARTICIPATION POLICY

Perhaps more than any other course in the psychology major, your attendance in this class is paramount to your success and your group's success. Outside of your academic achievement, your group work is the most important part of this course. It is not fair to your group or your academic development if you miss class without good cause. That is why the PLNU attendance policy will be strictly followed. This attendance policy is specified in the University Catalog. Please note the following key points and elaborations of the attendance policy.

- PLNU Attendance and Participation Policy: “Regular and punctual attendance at all synchronous class sessions is considered essential to optimum academic achievement. **If the student is absent for more than 10 percent of class sessions (4 or more;** virtual or face-to-face), the faculty member will issue a written **warning of de-enrollment**. **If the absences exceed 20 percent (8 or more),** the student may be **de-enrolled without notice** until the university drop date or, after that date, receive an "F" grade. In some courses, a portion of the credit hour content will be delivered asynchronously and attendance will be determined by submitting the assignments by the posted due dates. See **Academic Policies** (<https://catalog.pointloma.edu/index.php?catoid=46>) in the Undergraduate Academic Catalog. If absences exceed these limits but are due to university excused health issues, an exception will be granted.”
- “There are no allowed or excused absences except when absences are necessitated by certain University-sponsored activities and are approved in writing by the Provost.”
- University-sponsored activities that are approved in writing by the Provost usually are for NCAA events for student athletes and occasionally field trips for other PLNU courses
- **When you are absent in this class three times** (for any cause), a **Notice of Deenrollment** will be sent to the Vice Provost for Academic Administration. Your **fourth absence will result in deenrollment**.
- Save your absences for situations that are outside of your control. Do not consider your allowable absences as the number of times that you can miss class without being deenrolled. If you become ill after you used your allowable absences you will be deenrolled from the course.
- If you need to miss a test for any reason, you will need to notify the professor prior to the examination for consideration to be administered a make-up test (if you fail to do so you may receive a 0% on the test). If a make-up test is administered there will be a 10% penalty (unless the absence is associated with a University-sponsored activity that is approved in writing by the Academic Provost)
- Some of the best learning opportunities occur during in-class discussions. Participating in these discussions can be immensely valuable to your learning. To acknowledge this importance, I will give some weight in your final grade to your classroom participation. In the event a student’s final grade is within one percentage point of the next highest grade, classroom participation will be considered in assigning the final grade.

SPIRITUAL CARE

Please be aware PLNU strives to be a place where you grow as whole persons. To this end,

we provide resources for our students to encounter God and grow in their Christian faith.

If students have questions, a desire to meet with the chaplain or have prayer requests you can contact the [Office of Student Life and Formation \(https://www.pointloma.edu/offices/student-life-formation\)](https://www.pointloma.edu/offices/student-life-formation).

USE OF TECHNOLOGY

In order to be successful in the online or hybrid environment, you'll need to meet the minimum technology and system requirements; please refer to the [Technology and System Requirements \(https://help.pointloma.edu/TDClient/1808/Portal/KB/ArticleDet?ID=108349\)](https://help.pointloma.edu/TDClient/1808/Portal/KB/ArticleDet?ID=108349) information. Additionally, students are required to have headphone speakers, microphone, or webcams compatible with their computer available to use. Please note that any course with online proctored exams require a computer with a camera (tablets are not compatible) to complete exams online.

Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

ASSIGNMENTS

Research Paper

The research paper will be completed in the parts listed below. **Please note that, while each section of the paper will be completed as a group, each of you will be responsible for writing (designated) sub-sections of the paper on a common GoogleDoc.**

1. Outline of Results Sections

1. After the data from your study has been collected and analyzed, you will **Outline the Results section (2% of final grade)**. This outline should include full-sentence descriptions of statistical findings, in APA style), include tables and graphs directly from SPSS/JASP, and turn it in to the professor.
2. This is the section designed to provide all of the hard “facts” of your analyses. In particular, this is where you will display tables (e.g., ANOVA tables) and graphs (e.g.,

plots of your data).

3. You want to have a **short paragraph for each of your major hypotheses**(you can group sub-hypotheses into the same paragraph). Specifically, write one paragraph for the impact of your manipulation on one of your outcome variables. If there is no significant interaction, then state so in the same paragraph. If there *is* an interaction, then specify how the groups within a single condition differed, and put a graph of the data in your paper.
 1. If you find no significant main effects, then you must report this, as well (along with F values, etc.)
4. Remember, in this section, you are only stating your findings, **you are not interpreting them**... leave that to the discussion section.
2. Final Outline of Discussion (with APA Citations)
 1. Using the professor's feedback from our Rough Draft of the Discussion Outline, you will write the **Outline of the Discussion section (2% of final grade)**.
 2. This is the section you will use to make sense of (interpret) your statistical findings in every-day language.
 1. Begin this section by restating (not just cutting and pasting) each hypothesis in a separate paragraph. The remainder of each paragraph should involve describing whether each hypothesis was confirmed by the data. If so, what does this mean?
 2. After discussing each hypothesis, discuss the implications of your findings for the broader community.
 3. Next, be sure to discuss the limitations of your study (e.g., limited sample size, lack of random sampling, non-validated measures, imperfect manipulations, and issues of internal, external, and construct validity), and describe how each of them might have impacted your results.
 4. Next, discuss future potential areas of study that may help clarify or expand your results.
 5. Finally, end with general statements that link your area of study with broader concerns/applications.
3. Final Paper (17% of Final Grade). This paper will include:
 1. Sections Copied from Last Semester (PSY 3090):
 2. Abstract
 1. This is a short, but comprehensive, summary of your entire paper. The purpose of an Abstract is for your reader to quickly get an idea of your study and its results, without having to skim through the entire article.
 2. The abstract should be between 150-250 words, and should include (from APA

Manual):

1. “The problem under investigation, in one sentence if possible;
2. The participants, specifying pertinent characteristics such as age, sex, and ethnic and/or racial group; in animal research, specifying genus and species;
3. The essential features of the study method—you have a limited number of words so restrict your description to essential and interesting features of the study methodology—particularly those likely to be used in electronic searches;
4. The basic findings, including effect sizes and confidence intervals and/or statistical significance levels; and
5. The conclusions and the implications or applications.”

3. Final Draft of Introduction Section

1. Using the feedback provided by the professor on your Outline of Introduction, re-arrange as necessary, add any missing information, theories, or syntheses/analyses of the literature, and put into full paragraphs, ensuring that the paper (including all summaries, quotations, and citations) complies with all APA Style guidelines
2. The Introduction Section should be at least 4-6 pages long.

4. Final Draft of Method Section

1. Using the feedback provided by the professor on your Outline of Method, re-arrange as necessary, add any missing information or section headings, and put into full paragraphs, ensuring that the paper (including all headings, measure descriptions, and citations) complies with all APA Style guidelines.
2. The Method Section should be 3-5 pages (depending on the number of measures and manipulations).

5. Final Draft of Results, Tables, and Figures

1. Using the feedback provided by the professor on your Outline of Results, re-arrange as necessary, add any missing information, and put into full paragraphs, ensuring that the paper (including all tables and figures) complies with all APA Style guidelines.
2. The written portion of the Results section should be 1-3 pages long, depending on the number of analyses (not including tables, figures, and other appendices).

6. Final Draft of Discussion Section

1. Using the feedback provided by the professor on your Outline of Discussion, re-arrange as necessary, add any missing information or analysis, and put into full paragraphs, ensuring that the paper (including all summaries, quotations, and citations) complies with all APA Style guidelines.
2. This Discussion section should be at least 4-5 pages long (depending on the number

of hypotheses).

7. References, Tables, Figures, and Appendices

1. See guidelines in APA Manual of Style (7th Edition) for how to format.

In an attempted act of environmental compassion, my goal is to minimize the amount of paper used for this class. Therefore, **all assignments should be saved as a PDF with both a) the name of the assignment, and b) your name in the title and uploaded to Canvas.** All papers will then be returned to you electronically via Canvas. If you do not know how to save a document as a PDF, ask me in the first week of class.

Furthermore, **for group assignments created using GoogleDocs, GoogleSheets, GoogleSlides, etc., you should both a) share the document with me (rmueller@pointloma.edu (<mailto:rmueller@pointloma.edu>)), and b) provide a link to the original GoogleDoc in your Canvas submission/comments (this allows me to see who contributed what in the construction of the assignment). Be sure to **always work on these Google Doc assignments using your PLNU Login information.****

Presentation

Groups will be required to deliver a 20-minute oral presentation on their paper. There will be 5-10 minutes of questions after the presentation. Presentations will occur at the end of the semester, and will use PowerPoint. A more detailed schedule will be determined later in the course. You will receive a group grade for your presentation.

Posters

Groups will also present their paper in a poster format at the end of the semester. More instruction of the specific format will be presented in class at a later time. You will receive a group grade for your poster which will count as part of your final exam.

Group Participation

Once again, 10% of your final grade will depend upon your group participation throughout the semester. This will be determined COMPLETELY by the reports of your group members. This

grade is just an added incentive for you to be a courteous and responsible group member. So be sure to attend all group meetings, and to take on an equal share of the data collection and analysis tasks this semester.

A Bit of Grace...in Exchange for Works...

Some of the best learning opportunities occur during in-class discussions. Participating in these discussions can be immensely valuable to your learning. To acknowledge this importance, I have given substantial weight to the activities you complete during classtime. However, for those who go above-and-beyond in their in-class participation, I will give some added weight in your final grade to your classroom participation. **In the event a student's final grade is within one percentage point of the next highest grade, exceptional classroom participation will be considered in assigning the final grade.**

COURSE SCHEDULE AND ASSIGNMENTS AT-A-GLANCE

The table below lists our assignments and their due dates. Click on any assignment to review it (once it is "unlocked").

Course Summary:

Date	Details	Due
Mon Aug 28, 2023	 InQuizitive Assignment: How to Use InQuizitive (https://canvas.pointloma.edu/courses/71957/assignments/1007667)	due by 11:59pm
Fri Oct 27, 2023	 09f Reading: Morling Ch. 11 - Questions You Should be Prepared to Discuss in Class (https://canvas.pointloma.edu/courses/71957/assignments/1007661)	due by 9:30am
Mon Jan 8, 2024	 WK 1m In-Class: Basic Review from PSY 3090 (https://canvas.pointloma.edu/courses/71957/assignments/999889)	due by 9:45am
	 WK 1m After-Class - Submit Revised IRB	due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/1007531>

Wed Jan 10, 2024

 [WK 1w Pre-Class | Review of Simple Experiment - Watch Lectures \(57 mins\) & Respond to Questions](#)

due by 7:30am

<https://canvas.pointloma.edu/courses/71957/assignments/999891>

 [WK 1w | In-Class: Review Issues with Simple Experiment](#)

due by 9:45am

<https://canvas.pointloma.edu/courses/71957/assignments/999890>

Fri Jan 12, 2024

 [WK 1f Pre-Class | Multiple-Group Experiment - Watch Lectures \(85 mins\) & Respond to Questions](#)

due by 7:30am

<https://canvas.pointloma.edu/courses/71957/assignments/999888>

 [WK 1f | In-Class: Review Multiple Group Experiment](#)

due by 9:45am

<https://canvas.pointloma.edu/courses/71957/assignments/999887>

Mon Jan 15, 2024

 [WK 1 Take Home \(Part 1\) | Reading: Morling Ch. 12 - Questions You Should be Prepared to Discuss in Class](#)

due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/1007662>

 [WK 1 | Take Home \(Part 2\): Watch Ch. 12 - Watch Factorial Designs Lectures \(66 mins\) & Factorial Design Worksheet 1.1](#)

due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/999870>

 [WK 1 Take Home \(Part 1b\): Chapter 12 InQuizitive](#)

due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/1007663>

Wed Jan 17, 2024

 [WK 2w | In-Class: Review Factorial Design Worksheets](#)

due by 9:45am

<https://canvas.pointloma.edu/courses/71957/assignments/999895>

Thu Jan 18, 2024

 [WK 2f Pre-Class |
Worksheet 1.2 Factorial
Designs](#)

due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/999897>

Fri Jan 19, 2024

 [WK 2f | Quiz - Mitchell &
Jolley- Ch. 13 Quiz](#)

due by 7:45am

<https://canvas.pointloma.edu/courses/71957/assignments/999838>

 [WK 2f | In-Class: Factorial
Designs \(Review Worksheet #2\)](#)

due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/999896>

 [WK 2 | Take Home \(Part 1\)
Watch Lectures \(47 mins\) for
Within-Subjects & Mixed
Designs \(Chapter 13\) and
Answer Questions](#)

due by 7:30am

<https://canvas.pointloma.edu/courses/71957/assignments/999894>

Sun Jan 21, 2024

 [WK 2 | Take Home \(Part 2\):
Create OSF Account; Begin
Pre-Registration](#)

due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/999892>

 [Week 2 | Take Home \(Part
1\): Read Morling Ch. 14 and
take Inquizitive Quiz](#)

due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/1012343>

Mon Jan 22, 2024

 [WK 3m | In-Class: Review
Within-Subjects Design](#)

due by 9:45am

<https://canvas.pointloma.edu/courses/71957/assignments/999893>

 [WK 3w | Before Class:
Complete Study Guide
Worksheet](#)

due by 7:45am

<https://canvas.pointloma.edu/courses/71957/assignments/1012370>

Wed Jan 24, 2024

 [WK 3w | After-Class:
Answer Sheet for Today's
Review Worksheet](#)

due by 9:35am

<https://canvas.pointloma.edu/courses/71957/assignments/999899>

 [WK 3w | In-Class: Review for Exam 1](https://canvas.pointloma.edu/courses/71957/assignments/999900) due by 9:45am
(<https://canvas.pointloma.edu/courses/71957/assignments/999900>)

 [*WK 3f | Exam 1 \(Simple Experiment, Multiple-Group Experiment, Factorial Design, Within-Subjects Design, Replication/Transparency\) {10%} \(Description Only\)](https://canvas.pointloma.edu/courses/71957/assignments/999861) due by 8:30am
(<https://canvas.pointloma.edu/courses/71957/assignments/999861>)

Fri Jan 26, 2024

 [Ch. 10-13 Exam](https://canvas.pointloma.edu/courses/71957/assignments/999834) due by 9:35am
(<https://canvas.pointloma.edu/courses/71957/assignments/999834>)

 [Ch. 10-13 Exam](https://canvas.pointloma.edu/courses/71957/assignments/999840) due by 9:35am
(<https://canvas.pointloma.edu/courses/71957/assignments/999840>)

 [*\(OLD VERSION - SPSS - DO NOT USE\) WK 3f | In Class: Research Day - Compiling Data \(in computer lab\)](https://canvas.pointloma.edu/courses/71957/assignments/999859) due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999859>)

Sun Jan 28, 2024

 [WK 3 | Take Home \(Part 2\): Chi-Square - Watch Chi-Square Lectures and Complete Worksheet](https://canvas.pointloma.edu/courses/71957/assignments/999901) due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999901>)

Mon Jan 29, 2024

 [WK 4m | In-Class: Chi-Square Analysis](https://canvas.pointloma.edu/courses/71957/assignments/999907) due by 9:45am
(<https://canvas.pointloma.edu/courses/71957/assignments/999907>)

Wed Jan 31, 2024

 [WK 04w | Correlations - Watch Correlation Lecture\(s\) and Complete Worksheet\(s\)](https://canvas.pointloma.edu/courses/71957/assignments/999869) due by 7:30am
(<https://canvas.pointloma.edu/courses/71957/assignments/999869>)

 [*WK 4w | In-Class: Correlation Review; Quiz](https://canvas.pointloma.edu/courses/71957/assignments/999862) due by 9:45am
(<https://canvas.pointloma.edu/courses/71957/assignments/999862>)

Fri Feb 2, 2024  [WK 4f | In-Class: Data Collection & Variable Coding](https://canvas.pointloma.edu/courses/71957/assignments/999860) due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999860>)

Sun Feb 4, 2024  [WK 4 | Take Home: Construct Full Data Set in SPSS-Format \(save in JASP\)](https://canvas.pointloma.edu/courses/71957/assignments/999898) due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999898>)

Mon Feb 5, 2024  [WK 5m | In Class: Research Day - Finalize Scoring in Qualtrics; Create a Final-Variables-Only Data File \(for group\)](https://canvas.pointloma.edu/courses/71957/assignments/999903) due by 9:45am
(<https://canvas.pointloma.edu/courses/71957/assignments/999903>)

Wed Feb 7, 2024  [WK 5w | In-Class: Finalizing Scoring and Creating JASP Files of your Data](https://canvas.pointloma.edu/courses/71957/assignments/999904) due by 9:45am
(<https://canvas.pointloma.edu/courses/71957/assignments/999904>)

Fri Feb 9, 2024  [WK 5f | In-Class: Using JASP to Analyze Your Own Data \(Correlation\)](https://canvas.pointloma.edu/courses/71957/assignments/999906) due by 9:45am
(<https://canvas.pointloma.edu/courses/71957/assignments/999906>)

Fri Feb 9, 2024  [WK 5f | In-Class: Download JASP & Create a JASP File of Pilot Data](https://canvas.pointloma.edu/courses/71957/assignments/999902) due by 9:45am
(<https://canvas.pointloma.edu/courses/71957/assignments/999902>)

Sun Feb 11, 2024  [WK 5 | Take Home: Regression Analysis - Watch Lectures and Complete Regression Worksheet](https://canvas.pointloma.edu/courses/71957/assignments/999905) due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999905>)

Mon Feb 12, 2024  [WK 6m | In-Class: Regression](https://canvas.pointloma.edu/courses/71957/assignments/999910) due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999910>)

Wed Feb 14, 2024	 WK 6w Worksheet 4.2 Regression Analysis https://canvas.pointloma.edu/courses/71957/assignments/999912	due by 7:30am
	 WK 6w In-Class: Regression and JASP Analysis https://canvas.pointloma.edu/courses/71957/assignments/999911	due by 9:45am
Fri Feb 16, 2024	 WK 6f In-Class: Using JASP to Analyze Your Data (Regression) https://canvas.pointloma.edu/courses/71957/assignments/999909	due by 9:45am
Sun Feb 18, 2024	 WK 6 Take Home: Watch ANOVA Lecture and Complete Worksheet(s) https://canvas.pointloma.edu/courses/71957/assignments/999908	due by 11:59pm
Mon Feb 19, 2024	 WK 7m In-Class: One-Way ANOVA: Between-Subjects Analysis https://canvas.pointloma.edu/courses/71957/assignments/999915	due by 11:59pm
Wed Feb 21, 2024	 WK 7w Complete ANOVA Worksheet 5.2 https://canvas.pointloma.edu/courses/71957/assignments/999916	due by 7:30am
	 WK 7w In-Class: Running a One-Way ANOVA: Between-Subjects Analysis on JASP https://canvas.pointloma.edu/courses/71957/assignments/999917	due by 9:45am
Fri Feb 23, 2024	 WK 7f In-Class: Using JASP to Analyze Your Data (ANOVA) https://canvas.pointloma.edu/courses/71957/assignments/999914	due by 9:45am
Sun Feb 25, 2024	 WK 7 Take Home: Complete Review Worksheet; Finalize One-Way ANOVA Analysis & Write-Up Using Your Data https://canvas.pointloma.edu/courses/71957/assignments/999913	due by 11:59pm

Mon Feb 26, 2024

 ****WK 8m | In Class: Review for Exam 2**
(<https://canvas.pointloma.edu/courses/71957/assignments/999843>)

due by 11:59pm

Wed Feb 28, 2024

 ***WK 8w | Exam 2 (Chi-Square, Regression, One-Way ANOVA {8.33%})**
(<https://canvas.pointloma.edu/courses/71957/assignments/999863>)

due by 8:30am

 **Exam 2: Chi-Square, Regression, & One-Way ANOVA**
(<https://canvas.pointloma.edu/courses/71957/assignments/999839>)

due by 9:35am

Fri Mar 1, 2024

 **WK 8f | One-Way ANOVA: Within-Subjects Analysis; Watch Lectures and complete Worksheet 8.1**
(<https://canvas.pointloma.edu/courses/71957/assignments/999918>)

due by 8am

 **WK 8f | In Class: One-Way ANOVA: Within-Subjects Analysis**
(<https://canvas.pointloma.edu/courses/71957/assignments/999922>)

due by 9:45am

Sun Mar 10, 2024

 **WK 8 | Take Home: Watch Factorial ANOVA Lecture(s) and Complete Worksheet(s)**
(<https://canvas.pointloma.edu/courses/71957/assignments/999923>)

due by 7:30am

Mon Mar 11, 2024

 **WK 9m | In-Class: Two-Way ANOVA Analysis**
(<https://canvas.pointloma.edu/courses/71957/assignments/999844>)

due by 11:59pm

 **WK 9m | In-Class: Two-Way ANOVA Analysis**
(<https://canvas.pointloma.edu/courses/71957/assignments/999845>)

due by 11:59pm

 **WK 9w | Factorial ANOVA - Complete Factorial ANOVA Worksheet 7.2**
(<https://canvas.pointloma.edu/courses/71957/assignments/999920>)

due by 7:30am

Wed Mar 13, 2024

 [WK 9w | In-Class: Factorial ANOVA Worksheet #2](#) due by 9:45am
(<https://canvas.pointloma.edu/courses/71957/assignments/999921>)

Fri Mar 15, 2024

 [WK 9f | Worksheet 9.1 - Exam 3 Review Sheet 1 & 2](#) due by 8am
(<https://canvas.pointloma.edu/courses/71957/assignments/999919>)

Fri Mar 15, 2024

 [WK 9f | In Class: Review for Final Exam: Part 1](#) due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999853>)

Sun Mar 17, 2024

 [WK 9 | Take Home: 9.2 Final Exam Review Sheet 3](#) due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999852>)

Mon Mar 18, 2024

 [* WK 10 | Exam 3 \(Description\)](#) due by 8:30am
(<https://canvas.pointloma.edu/courses/71957/assignments/999841>)

Wed Mar 20, 2024

 [Exam 3 ANOVAs](#) due by 9:35am
(<https://canvas.pointloma.edu/courses/71957/assignments/999837>)

Wed Mar 20, 2024

 [WK 10w | In-Class: Using JASP to Analyze Data \(Within Subjects ANOVA & Factorial ANOVA\)](#) due by 9:45am
(<https://canvas.pointloma.edu/courses/71957/assignments/999872>)

Fri Mar 22, 2024

 [WK 10f | In-Class \(Part 2\): Finalize Analyses & Outline Results](#) due by 9:45am
(<https://canvas.pointloma.edu/courses/71957/assignments/999875>)

 [*WK 10f | In-Class: Data Analysis](#) due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999851>)

 [WK 10f | In-Class \(Part 1\): Using JASP to Analyze Your](#)

[Data \(Factorial ANOVA and/or Within-Subjects ANOVA\)](https://canvas.pointloma.edu/courses/71957/assignments/999871)

due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/999871>

Sun Mar 24, 2024

 [WK 10 | Take Home: Outline of Results](https://canvas.pointloma.edu/courses/71957/assignments/999876)

due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/999876>

Mon Mar 25, 2024

 [WK 11m | In-Class: Feedback on Results Outline, begin Rough Draft of Results](https://canvas.pointloma.edu/courses/71957/assignments/999877)

due by 9:45am

<https://canvas.pointloma.edu/courses/71957/assignments/999877>

Wed Mar 27, 2024

 [WK 11w | In-Class: Write Results Sections](https://canvas.pointloma.edu/courses/71957/assignments/999874)

due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/999874>

Sat Mar 30, 2024

 [WK 11 | Take Home: Rough Draft of Results, Table\(s\), & Figure\(s\) Due {4%}](https://canvas.pointloma.edu/courses/71957/assignments/999873)

due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/999873>

Wed Apr 3, 2024

 [WK 12w | Before Class: APA Style Quiz](https://canvas.pointloma.edu/courses/71957/assignments/999836)

due by 7:55am

<https://canvas.pointloma.edu/courses/71957/assignments/999836>

 [WK 12w | In-Class \(Part 1\): APA Style, Writing Discussion](https://canvas.pointloma.edu/courses/71957/assignments/999879)

due by 9:45am

<https://canvas.pointloma.edu/courses/71957/assignments/999879>

 [WK 12w | In-Class: Write Discussion Section Copy](https://canvas.pointloma.edu/courses/71957/assignments/999882)

due by 9:45am

<https://canvas.pointloma.edu/courses/71957/assignments/999882>

Fri Apr 5, 2024

 [WK 12f | In-Class: Outline Discussion](https://canvas.pointloma.edu/courses/71957/assignments/999880)

due by 9:45am

<https://canvas.pointloma.edu/courses/71957/assignments/999880>

 [*WK 12f | In-Class: Feedback for Discussion](https://canvas.pointloma.edu/courses/71957/assignments/999855)

due by 11:59pm

<https://canvas.pointloma.edu/courses/71957/assignments/999855>

Sun Apr 7, 2024	 WK 12 Take Home: Rough Draft of Discussion (individual grade) (https://canvas.pointloma.edu/courses/71957/assignments/999878)	due by 11:59pm
Mon Apr 8, 2024	 WK 12 Take-Home: Finalize Outline of Discussion (https://canvas.pointloma.edu/courses/71957/assignments/1012366)	due by 11:59pm
Wed Apr 10, 2024	 WK 13m In-Class: Abstract (https://canvas.pointloma.edu/courses/71957/assignments/999884)	due by 9:45am
Wed Apr 10, 2024	 WK 13w In-Class: Write Discussion Section (https://canvas.pointloma.edu/courses/71957/assignments/999881)	due by 9:45am
Fri Apr 12, 2024	 WK 13f In-Class: Creating a Poster (https://canvas.pointloma.edu/courses/71957/assignments/999885)	due by 9:45am
Sun Apr 14, 2024	 *Extra Credit: Presentations & Quizzes (https://canvas.pointloma.edu/courses/71957/assignments/999847)	due by 11:59pm
Sun Apr 14, 2024	 WK 13 Take Home: Rough Draft of Discussion Due {4%} (https://canvas.pointloma.edu/courses/71957/assignments/999854)	due by 11:59pm
Mon Apr 15, 2024	 WK 14m Final Oral Presentation (https://canvas.pointloma.edu/courses/71957/assignments/999886)	due by 8:30am
Wed Apr 17, 2024	 **Final Oral Presentation (Individual Grade) (https://canvas.pointloma.edu/courses/71957/assignments/999842)	due by 11:59pm
Fri Apr 19, 2024	 *Extra Credit: Presentations & Quizzes (https://canvas.pointloma.edu/courses/71957/assignments/999846)	due by 11:59pm
Fri Apr 19, 2024	 WK 14f In-Class: Poster	

Finalize due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999883>)

 ***Extra Credit: Video Presentation** due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999848>)

Sun Apr 21, 2024

 ***Extra Credit: Video Presentation (Contested Research)** due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999849>)

 ***WK 14 | Take Home: Poster Using JASP** due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999856>)

Mon Apr 22, 2024

 ***WK 15m | In-Class: Practice Poster Presentations** due by 8:30am
(<https://canvas.pointloma.edu/courses/71957/assignments/999858>)

Sun Apr 28, 2024

 ***WK 15 | Take Home: Final Paper Due {17%}** due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999857>)

Wed May 1, 2024

 ***Final Exam: Loma Research Conference (Note: Wednesday of Final Exam Week)** due by 2pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999850>)

 **Final Poster Presentation** due by 2pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999864>)

 **Group Participation Survey** due by 11:59pm
(<https://canvas.pointloma.edu/courses/71957/assignments/999866>)

 **Chapter 13 InQuizitive**
(<https://canvas.pointloma.edu/courses/71957/assignments/1007664>)

 **Chapter 9 InQuizitive**
(<https://canvas.pointloma.edu/courses/71957/assignments/1007666>)

 [Final Research Paper](#)
(individual grade)
(<https://canvas.pointloma.edu/courses/71957/assignments/999865>)

 [Inquisitive \(Test\)](#)
(<https://canvas.pointloma.edu/courses/71957/assignments/1007668>)

 [Results - Rough Draft](#)
(individual grade)
(<https://canvas.pointloma.edu/courses/71957/assignments/999867>)

 [Roll Call Attendance](#)
(<https://canvas.pointloma.edu/courses/71957/assignments/999868>)

 [Week 2 Take Home \(Part 1b\): Chapter 14 InQuizitive](#)
(<https://canvas.pointloma.edu/courses/71957/assignments/1007665>)

 [WK 3 | Take Home \(Part 1\): Chi-Square - Read pp. 183-187 in Learning Statistics with JASP](#)
(<https://canvas.pointloma.edu/courses/71957/assignments/1012352>)

 [WK 3m | In-Class: Replication, Transparency, and Real-World Importance](#)
(<https://canvas.pointloma.edu/courses/71957/assignments/1012369>)
