

# Course Syllabus

 [Edit](#)

## Basic Course Information

 <p><b>POINT LOMA</b> NAZARENE UNIVERSITY</p>	<p><b>Department of Psychology</b></p> <p><b>PSY3090-1: Research Methods and Statistics I</b></p> <p><b>4 Units</b></p>
<p><b>Spring 2023</b></p> <p><b>M/W 1:30-2:35pm @ Cabrillo Hall 101</b></p> <p><b>Fri. 1:30-2:35pm @ LW 216</b></p>	

## Basic Professor Information

**Instructor: Rosemond T. Lorona, Ph.D**

**Phone:**

**Email (preferred):** [rlorona@pointloma.edu](mailto:rlorona@pointloma.edu) (<mailto:rlorona@pointloma.edu>)

I welcome your questions and would enjoy hearing from you throughout the semester. I will give prompt replies as I am able during the work day, but there may be times when I am not available for a quick res such as weekends and evenings.

**Office Hours are times that students can ask the professor questions, get help on assignments, past work, or seek advice. You can drop by my office without an appointment during these times Culbertson 214.**

**Monday 8:30-9:30am**

**Wednesday 8:30- 9:30am**

**Friday 8:30-10:30am**

**Additional office hours available by appointment. Use my calendar to book a time with me:**

<https://calendar.google.com/calendar/u/0/selfsched?>

[sstoken=UUZENFhVN29pR1BzfGRIZmF1bHR8ZTQ2NWNhMmVIYTkzYzU2NDQyZmI1ZTcxN2JhZ](https://calendar.google.com/calendar/u/0/selfsched?sstoken=UUZENFhVN29pR1BzfGRIZmF1bHR8ZTQ2NWNhMmVIYTkzYzU2NDQyZmI1ZTcxN2JhZ)

[📅 \(https://calendar.google.com/calendar/u/0/selfsched?](https://calendar.google.com/calendar/u/0/selfsched?)

[sstoken=UUZENFhVN29pR1BzfGRIZmF1bHR8ZTQ2NWNhMmVIYTkzYzU2NDQyZmI1ZTcxN2JhZDAwNTE\)](https://calendar.google.com/calendar/u/0/selfsched?sstoken=UUZENFhVN29pR1BzfGRIZmF1bHR8ZTQ2NWNhMmVIYTkzYzU2NDQyZmI1ZTcxN2JhZDAwNTE)

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TA: Kat Ryan, [kryan0020@pointloma.edu](mailto:kryan0020@pointloma.edu) (<mailto:kryan0020@pointloma.edu>)

TA office hours: Thursdays 3:00-4:00pm, drop in using [this Google Meet link](https://meet.google.com/nfdu-rwn) [📅 \(https://meet.google.com/nfdu-rwn\)](https://meet.google.com/nfdu-rwn) (no appointment necessary)

## 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

Students gain experience in methods of design, data collection, management, and analysis. Students begin a significant research project. This course must be taken in the semester immediately preceding PSY 3091.

You're probably taking this course because you are majoring in psychology and enjoy learning about human thoughts, feelings, and behavior. But how, exactly, do psychologists get their ideas and information about humans? Well, the field of psychology is based on research and reoccurring patterns of data. Psychologists can interpret these data by utilizing statistics. Therefore, what we know about psychology is fundamentally tied to research and statistics! The abilities to understand statistics and make correct conclusions about research are critical for students and professionals in many fields. This course will introduce many commonly used statistics and designs for basic psychological research. The course will focus on the underlying theory and the interpretation of descriptive statistics, correlation, regression, t-tests, ANOVA, and nonparametric tests. An introductory hands-on experience with the computer statistical package **R** will also be included in the course. We will practice completing and interpreting **R** analyses in class and you will have opportunities to practice on your own. We will also discuss research validity and how to be a good consumer of scientific research. You will begin designing an original study, which will be completed in the following semester.

## COURSE LEARNING OUTCOMES

1. Distinguish between the uses and conclusions of correlation, regression, t-tests, ANOVA, and nonparametric tests and decide which type of test is appropriate for specific research questions and designs.
2. Remember and apply the use of null-hypothesis testing and its limitations.
3. Identify issues in statistics and research, such as bias, power, error, and ethics, and identify possible solutions to these issues.
4. Complete statistical analyses in R and correctly interpret and form conclusions based on the results of statistical analyses.
5. Design a psychological study or experiment that answers a research question of interest.
6. Search for, obtain, and correctly interpret quality peer-reviewed research.

## REQUIRED RESOURCES

- *Research Methods in Psychology: Evaluating a World of Information* (4th Ed) by Beth Morling; ISBN: 978-0-393-53627-0; 978-0-393-53626-3
- *Learning Statistics with R*, version 0.6. by Danielle Navarro; Download for free at <https://learningstatisticswithr.com> (<https://learningstatisticswithr.com/>)
- **Required Technology**
  - *RStudio*, version 1.2.1335 or higher (free)- First, download R 3.6.1 or higher (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/> (<https://www.rstudio.com/>)
  - If you are having trouble downloading the necessary technology, please contact IT to discuss options
  - You may also utilize university library computers for assignments that involve R instead of using your personal computer.
- Learning Demonstrations and Assignments will be submitted through Canvas, so each student will need access to a computer.

## 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 15 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. 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.

## COURSE ASSIGNMENTS

**Midterm Learning Demonstrations (30%):** The midterms will consist of multiple choice and short answer questions that will require not only recognition of concepts, but comparisons, evaluations, and applications of concepts. Learning demonstrations will emphasize material that we talked about in class and was addressed in lectures, but to earn an A, you will need to also study the assigned readings.

**Assignments (45%):** You will have regular assignments to complete throughout the semester (usually due Friday). From these assignments, you will gain experience reviewing research, communicating research findings, developing a research idea, using R, and interpreting statistics. These assignments are meant to reinforce theories and concepts. Detailed directions and grade expectations for each assignment are on Canvas.

**Final Learning Demonstration (20%):** We will celebrate all of our learning at the end of the semester. You will demonstrate your learning by responding to multiple choice, fill-in-the-blank, and/or short answer questions that will require cumulative knowledge. It will be Friday, May 5 @ 1:30-4pm. It cannot be missed or taken early or late for any reason.

**Final Research Celebration (5%):** We will be celebrating the learning of the Research Methods II students by attending their research poster session. You will celebrate the learning of your peers by asking them meaningful questions about their work and congratulating them on their work. To earn credit, you must attend the session, complete a worksheet, and maintain a positive and professional demeanor during the session. Your presence is valued for those presenting, so please don't miss it! This will take place on May 3rd @8:30am.

## GRADING

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. Grades will be weighted as listed above and determined based on the following:

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

## **Course Policies and Expectations**

### **General**

- Any changes to the syllabus (including course expectations and assignments) will be announced in class and/or as a Canvas announcement. Students are responsible for actively monitoring Canvas updates.
- Students are responsible for all content/material that is found within the Canvas course.
- Students should complete the assigned reading, lectures, or activities prior to class, especially for “Flipped Fridays”. Such practices will enable you fully participate in class activities. In the case of “Flipped Friday,” you may be very lost or behind if you do not do the assigned work beforehand.

### **Attendance**

- Regular and punctual attendance at all class sessions is considered essential to optimum academic achievement. Attendance will be taken at the beginning of class. If you are more than 15 minutes late to class, you will be counted absent. If you leave class early, you will be counted absent unless you notify me before class begins. If the student is absent for more than 10 percent of class sessions, the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. See Academic Policies in the Undergraduate Academic Catalog. If absences exceed these limits but are due to university excused health issues, an exception will be granted.
- Out of respect and care for one another, please do not attend class if you are feeling ill in any way. You will not miss points for being absent (just follow overall attendance policy above). I will follow and honor any university policies applicable to COVID-19.
- 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. I will not be recording in-person lectures to post online.

### **Submitting Assignments**

- All due dates are posted in advance on Canvas. You may submit assignments early. Late work is accepted for 10 days, including weekend days, after the original due date. Canvas will automatically deduct 10% from the grade for each late day. For example, an assignment submitted 3 days late can earn up to 70% of the available points. End-of-semester assignments may not be submitted late after the final exam (to accommodate faculty grading deadlines). In other words, no coursework will be accepted after May 5th at 4pm. Note that work submitted late may also be graded later.
- One no-questions-asked freebee – students can exchange a freebee to turn in one late assignment up to 10 days after initial deadline *at no deduction*. The freebee does not apply to learning demonstrations and does not allow students to submit end-of-semester assignments after the final exam.
  - To use your freebee, submit your late work on Canvas and include a Canvas submission comment saying that you are using the freebee (do not email the professor). The freebee must be used at the time of time of submitting the work, not retroactively.
- Assignments are individual work; you are expected to complete the work on your own.
- Work submitted on Canvas must be in .doc, .docx, or .pdf file types only. The student is responsible for making sure Canvas files work and go through Turnitin. Files that do not open, are in the wrong file type, and/or can't go through Turnitin will be considered late until the problem is rectified.

### **Learning Demonstration (LD) Information**

- LDs may consist of multiple choice, fill-in-the-blank, and/or short answer questions. You may be required to interpret and apply information based on assigned readings, lectures, and learning activities.
- All LDs require cumulative knowledge. You will be tested on the current unit and previous units.
- LDs will be taken during in-person class using Canvas. On test day, each student must bring an electronic device to take their LD (laptop recommended; phone or tablet is NOT recommended). The LD is not open-internet or open-book.
- You may bring one 3"x 5" index card with any notes on it to use. At the beginning of an LD, you can exchange a filled-in index card for extra credit. In other words, you can either have the extra credit OR use the index card for the LD. If you decide during the LD that you would like to use your index card, you can exchange it back.
- A make-up midterm LD is available in cases of documentable emergency or illness or if the student provides at least 2 weeks' notice of a non-emergency absence. The make-up LD must be taken within 2 weeks of the original test date and it is up to the student to contact the professor to schedule a time to take the LD in a proctored setting. Each student may not have more than one make-up midterm LD per semester. There is no option to re-take a LD that was previously attempted.
- The final LD cannot be dropped or missed for any reason. Successful completion of this course requires the on-time completion of the Final LD (final exam) on May 5th from 1:30-4pm.

## **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.

## **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 \(https://www.pointloma.edu/offices/office-educational-effectiveness/disclosures\)](https://www.pointloma.edu/offices/office-educational-effectiveness/disclosures) to view which states allow online (distance education) outside of California.

## **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://catalog.pointloma.edu/index.php>) for definitions of kinds of academic dishonesty and for further information.

## **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](mailto:EAC@pointloma.edu) or 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.

## **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 Spiritual Development](https://www.pointloma.edu/offices/spiritual-development) (<https://www.pointloma.edu/offices/spiritual-development>)

## USE OF TECHNOLOGY

In order to be successful in the online 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 compatible with their computer available to use. If a student is in need of technological resources please contact [student-tech-request@pointloma.edu](mailto:student-tech-request@pointloma.edu) (<mailto:student-tech-request@pointloma.edu>).

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

**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 PLNU, Danielle Brown Friberg (619-849-2313). 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. 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 local police department (9-1-1) immediately.

**Student Success and Wellness.** 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.), and/or would like academic assistance, please contact the appropriate office using the following information.

- Counseling Services (619) 849-3020; [counselingservices@pointloma.edu](mailto:counselingservices@pointloma.edu) (<mailto:counselingservices@pointloma.edu>)
- Educational Access Center 619-849-2533; [eac@pointloma.edu](mailto:eac@pointloma.edu) (<mailto:eac@pointloma.edu>)
- Medical Services 619-849-2280; [sdwellnesscenter@pointloma.edu](mailto:sdwellnesscenter@pointloma.edu) (<mailto:sdwellnesscenter@pointloma.edu>)
- Tutorial Services 619-849-2953; [tutorialservices@pointloma.edu](mailto:tutorialservices@pointloma.edu) (<mailto:tutorialservices@pointloma.edu>)

## ASSIGNMENTS AT-A-GLANCE

Please see the weekly Modules for assignments due each week. Assignments and due dates will always be posted and available in advance.

### Course Schedule

Week	Content & Textbook Readings (re
Week 1: Jan 10-15 (Class on Tues. and Wed.)	<a href="https://canvas.pointloma.edu/courses/6">Introductions, Science, Statistics, and Research Methods in Psychology</a> <a href="https://canvas.pointloma.edu/courses/6"> (https://canvas.pointloma.edu/courses/6</a> ; Ch. 1 (Research Methods in Psycholo
Week 2: Jan 16-22 No Monday Class (MLK Jr Day)	<a href="https://canvas.pointloma.edu/courses/6">Sources of Information and Finding</a> <a href="https://canvas.pointloma.edu/courses/6"> (https://canvas.pointloma.edu/courses/6</a> ; Ch. 2 (RMP)
Week 3: Jan 23-29	<a href="https://canvas.pointloma.edu/courses/6">Building Blocks of Data and Research</a> <a href="https://canvas.pointloma.edu/courses/6"> (https://canvas.pointloma.edu/courses/6</a> Ch 2 (Learning Statistics with R text, LS
Week 4: Jan 30 - Feb 5	<a href="https://canvas.pointloma.edu/courses/6">Introduction to R</a> <a href="https://canvas.pointloma.edu/courses/6"> (https://canvas.pointloma.edu/courses/6</a> ; Ch. 3 (LSR)
Week 5: Feb 6 - Feb 12	<b>Midterm LD1</b> <a href="https://canvas.pointloma.edu/courses/6"> (https://canvas.pointloma.edu/courses/6</a> <b>Descriptive Statistics</b> <a href="https://canvas.pointloma.edu/courses/6"> (https://canvas.pointloma.edu/courses/6</a> ; Ch. 5 (LSR)
Week 6: Feb 13- Feb 19	<a href="https://canvas.pointloma.edu/courses/6">Probability and Probability Distributi</a> <a href="https://canvas.pointloma.edu/courses/6"> (https://canvas.pointloma.edu/courses/6</a> Ch. 9 & 10 (LSR)
Week 7: Feb 20-26	<a href="https://canvas.pointloma.edu/courses/6">Null Hypothesis Testing and Confide</a> <a href="https://canvas.pointloma.edu/courses/6"> (https://canvas.pointloma.edu/courses/6</a> ; Ch. 11 (LSR)

Week 8: Feb 27 - March 5	<a href="https://canvas.pointloma.edu/courses/6">(<a href="https://canvas.pointloma.edu/courses/6">https://canvas.pointloma.edu/courses/6</a>)</a> <b>Comparing Means</b> <a href="https://canvas.pointloma.edu/courses/6">(<a href="https://canvas.pointloma.edu/courses/6">https://canvas.pointloma.edu/courses/6</a>)</a> ; Ch. 13 (LSR)
Spring Break March 6 -12	
Week 9: Mar 13 - 19	<b>ANOVA</b> <a href="https://canvas.pointloma.edu/courses/6">(<a href="https://canvas.pointloma.edu/courses/6">https://canvas.pointloma.edu/courses/6</a>)</a> ; Ch. 14 (LSR)
Week 10: Mar 20 - 26	<b>Midterm LD2</b> <a href="https://canvas.pointloma.edu/courses/6">(<a href="https://canvas.pointloma.edu/courses/6">https://canvas.pointloma.edu/courses/6</a>)</a> Review and group work
Week 11: Mar 27-April 2	<b>Factorial ANOVA</b> <a href="https://canvas.pointloma.edu/courses/6">(<a href="https://canvas.pointloma.edu/courses/6">https://canvas.pointloma.edu/courses/6</a>)</a> ; Ch. 16 (LSR)
Week 12: April 3-9 No Friday Class (Easter)	<b>Regression;</b> <a href="https://canvas.pointloma.edu/courses/6">(<a href="https://canvas.pointloma.edu/courses/6">https://canvas.pointloma.edu/courses/6</a>)</a> Ch. 15 (LSR)
Week 13: April 10-16 No Monday Class (Easter)	Regression continued
Week 14: April 17-23	<b>Chi Square</b> <a href="https://canvas.pointloma.edu/courses/6">(<a href="https://canvas.pointloma.edu/courses/6">https://canvas.pointloma.edu/courses/6</a>)</a> ; Ch. 12 (LSR)
Week 15: April 24-30	<b>Developing your Project; A Return to</b> <a href="https://canvas.pointloma.edu/courses/6">(<a href="https://canvas.pointloma.edu/courses/6">https://canvas.pointloma.edu/courses/6</a>)</a> ; Ch. 3 (RMP)
<b>Research Celebration: Wednesday May 3 @ 8:30am</b> <a href="https://canvas.pointloma.edu/courses/66006/assignments/853717">(<a href="https://canvas.pointloma.edu/courses/66006/assignments/853717">https://canvas.pointloma.edu/courses/66006/assignments/853717</a>)</a>	

**Final Exam: Friday May 5 @ 1:30-4pm**

<https://canvas.pointloma.edu/courses/66006/quizzes/149955>

