

Syllabus for Quantitative Methods in Psychology

Course: Quantitative Methods in Psychology (01:830:200). Monday, Wednesday, and Friday 6:00-9:40pm Lucy Stone Hall (Livingston Campus), Room B105.

Instructor: Helen Colby

E-mail: hcolby@rci.rutgers.edu

Office: Psychology Building Room 124

Office Hours: Fridays 11:00am-12:00pm and by appointment

Websites: <https://sakai.rutgers.edu/portal>

Required Text: *Statistics for the Behavioral Sciences, 9th edition*, by Frederick J. Gravetter and Larry B. Wallnau. Published by Wadsworth Cengage Learning. ISBN# 978-1-111-83099-1.

Additional required readings will be posted under the “resources” section of the Sakai site.

Course Goals: The primary goal of this course is to provide every student with an understanding of and hands-on experience in the quantitative methods necessary to do research in psychology. This includes understanding and applying basic experimental methodologies, statistical analysis, and graphing data in a meaningful and appropriate way. Through real examples from literature and simplified hypothetical examples students will gain an understanding of which basic statistical analyses are appropriate for different types of data and different research questions. This course also aims to help students see research in psychology as an exciting, interesting field that has many applications to the real world.

Achieving the Course Goals: To achieve the course goals we will explore examples in class, discuss relevant methodologies, work through statistical analyses together, and do projects to reinforce the new statistical techniques. We will also work in groups to discuss issues in statistics, develop ideas for experiments, and discuss how research in psychology relates to current events and the broader community.

Tests and Quizzes: There will be one midterm, one final, and three quizzes during this class. The midterm is 15% of final grade, the final exam is 25% of the final grade, and each quiz makes up 5% of the final grade, (for a total of 15% made up of quizzes).

Recitation Projects and In-Class Assignments: Recitation will be made up mainly of group projects designed to reinforce concepts and skills learned during lecture. Some recitation projects will be assigned group grades, and some will be graded individually. During lecture there will occasionally be problems or other assignments to reinforce the topic being addressed by the lecture. These assignments will also be graded. In total, recitation projects and in-class assignments will make up 30% of the final class grade.

Homework: During the course practice questions will be assigned after each class. They must be completed before the beginning of the next class period. The assignments will be available under the “tests and quizzes” section of the Sakai site.

Turning in Assignments: Long-term assignments are due at the start of class the day they are due. Turning them in after the first 10 minutes of class is equivalent to turning them in one day late. In-class assignments are due by the end of the class period. Assignments will not be accepted by email. Assignments should be written using 12pt font, double-spaced, and with 1-inch margins unless specified differently. At all times, adhere to the APA guidelines as they are set forth in the APA Publication Manual.

Late Assignments: Your grade on an assignment turned in late will be reduced 10% of the total possible points for each day it is late up to 5 days. After 5 days late assignments will not be accepted.

Grading: Your final grade will be made up of :

Midterm	15%
Final	25%
Quizzes	15%
Recitation	30%
Homework	15%

Extra Credit: A very small amount of extra credit may be available during the course for participation in psychology research studies or for completing extra assignments. This is not set in stone and will be determined by the availability of research participation and relevant topics for additional assignments. Opportunities for extra credit will be announced in class.

Laptops: If you wish to use your laptop during lecture you must sit in the front row. Not near the front, but in the very, very front row. Everyone is welcome to use their laptop during recitation, regardless of where they are seated.

Calculators: I suggest you bring a calculator with you to class. Cell phone calculators are not an acceptable substitute, and don't do many of the functions you will want anyway. On tests and quizzes you may bring and use an old-fashioned (non-graphing) calculator. No cell-phone calculators can be used on tests or quizzes.

Contesting Grades: If you believe that I graded an assignment or test incorrectly for some reason, I want to hear your reasoning. To contest or object to a grade, you must submit a written, detailed explanation of the specific grade or portion of a grade being contested, a full, detailed explanation of why you believe the grade you received was incorrect, and supporting evidence for your view with relevant references as necessary. Grades must be contested in writing within three days of the day on which the assignment or test was returned.

Missed Exams, Quizzes, and Assignments: Make-up exams, quizzes, and assignments will only be available for fully documented (in writing) medical and family emergencies. If you need to miss an exam, quiz, or assignment for an emergency please let me know as soon as is

reasonably possible. Bring to the next class written documentation and a phone number and name for use in verifying the emergency.

Academic Integrity: All work handed in must be your own. If it is a group assignment it must be the group's original work, and have all group members' names on it. Plagiarism in any form is completely unacceptable. Simply re-writing another person's work by substituting a few of your own words still constitutes plagiarism. If you have any questions about what may or may not be plagiarism please ask me. Any students found to be plagiarizing will receive an F grade for the course and the case will be referred to the appropriate University authorities.

Students With Disabilities: Any student who feels he or she needs accommodation for a physical or learning disability, please contact the Office of Disability Services (151 College Ave, Suite 123; phone 732-932-2848) and read more about Rutgers' policy at <http://disability/services.rutgers.edu> . If you request accommodations for this course, you will need a letter from Disability Services. This letter must be provided to me by our second class, at which point you may make a request for course-specific accommodations. The Chair of Undergraduate Psychology and I will review your request and may choose to modify it before it is approved.

Schedule: *Please Note* This is a tentative schedule. It is subject to revision based on class progress and other factors.

Date	Class	Reading
5/30	Lecture 1- Introduction and Intro to Statistics Recitation 1 Lecture 2- Frequency Distributions	Chapters 1 and 2
6/1	Lecture 3- Central Tendency Recitation 2 Lecture 4- Variation	Chapters 3 and 4
6/4	Lecture 5- Z-Scores I Recitation 3 Lecture 6- Z-Scores II	Chapters 4 and 5
6/6	Lecture 7- Probability I Recitation 4 Lecture 8- Probability II	Chapter 6
6/8	Lecture 9- Probability and Samples Recitation 5 Lecture 10- Quiz 1	Chapter 7
6/11	Lecture 11- Hypothesis Testing I Recitation 6 Lecture 12- Hypothesis Testing II	Chapter 8
6/13	Class 13- Introduction to t-Tests Recitation 7 Class 14- Review	Chapter 9
6/15	MIDTERM	

6/18	Class 15- Independent Samples t-Tests Recitation 8 Class 16- Related Samples T-Tests	Chapters 10 and 11
6/20	Class 17- ANOVA I Recitation 9 Class 18- ANOVA II	Chapter 12
6/22	Class 19- Repeated Measures ANOVA Recitation 10 Class 20- Quiz 2	Chapter 13
6/25	Class 21- Two Factor Independent ANOVA Recitation 11 Class 22- ANOVA Review and Practice	Chapter 14
6/27	Class 23- Correlation I Recitation 12 Class 24- Correlation II	Chapter 15
6/29	Class 25- Regression I Recitation 13 Class 26- Quiz 3	Chapter 16
7/2	Class 27- Regression I Recitation 14 Class 28- Chi-Square	Chapters 16 and 17
7/4	Class 29- Catch Up Recitation 15 Class 30- Review	
7/6	FINAL	