

Psyc 220: Research Design and Statistics Part I
 T R 11:00 - 12:15 AH-0302

Professor: Dr. Paul Rose Office: AH-0126 Phone: 650-5390
 Email: prose Office hour for this class: Thursdays 12:15-1:15 (and by appointment)

Teaching Assistant: Amy Rosenblum Office hours: by appointment, please email
 Email: arosenb Office: AH-0319

Please put “psyc 220” in the subject line of all emails.

Learning Objectives:

1. Understand the advantages and disadvantages of various types of research designs well enough to critique research.
2. Develop an accurate vocabulary for talking about research.
3. Develop an appreciation for why research psychologists should use scientific methods.

Student Job Description:

The sole function of grading in this course is to provide you with feedback on how well you are meeting the learning objectives. Although students often adopt a “make the grade” goal as their primary objective, you need to be aware that this goal will sometimes be at odds with what your professor is trying to do for you. Your professor’s paramount concern is helping you learn.

As a student who is learning to become a professional, your tasks are to carefully study (not just read) the assigned readings and do any additional study that will help you prepare for class. You should also come to class alert and often enough that you can ask questions, hear concepts explained in different ways, apply your knowledge to problems presented in class and receive feedback from your professor and classmates about how well you’re “getting it”. Exams are written to reward students who attend frequently and study the assigned readings carefully. You are also expected to: take exams and quizzes on time, turn in projects on time, seek help when you need it from appropriate sources and to read, understand, and use the information provided in this syllabus.

Required Materials (rent the books from Textbook Services):

- Gravetter, F. J., & Wallnau, L. B. (2011). *Essentials of statistics for the behavioral sciences (7th ed.)*. Belmont, CA: Wadsworth-Cengage Learning.
- Gravetter, F. J., & Forzano, L. B. (2011). *Research methods for the behavioral sciences (4th ed.)*. Belmont, CA: Wadsworth-Cengage Learning.
- *Publication Manual of the American Psychological Association (6th ed.)*. (2010). Washington, DC: American Psychological Association.
- Calculator: Students must acquire a statistics calculator for both PSYC 220 and 221. This calculator must be capable of computing squares, square roots, sums of scores (Σx), sums of squares (Σx^2), and standard deviations (σ). The professors teaching these courses are strongly recommending the Texas Instruments TI-30Xa calculator. We have chosen this calculator due to its affordability, functionality, and user-friendliness. Please note that a graphing calculator is not permitted in either Psyc 220 or Psyc 221. It is your responsibility to understand how your calculator works.

Grading:

Exam 1 = ()/45 points	A = 90 – 100% B = 80 – 89.99% C = 70 – 79.99% D = 60 – 69.99% F = 0 – 59.99%
Exam 2 = ()/50 points	
Exam 3 = ()/55 points – Exam 3 will contain about fifteen comprehensive questions covering basic class concepts	
CITI Training ()/5 points	
Quiz 1 = ()/20 points	
Quiz 2 = ()/10 points	
Quiz 3 = ()/20 points	
Quiz 4 = ()/15 points	
Quiz 5 = ()/20 points	
Big Paper = ()/60 points	

Notice for psychology majors and minors:
 Find out what membership in the SIUE Psychology Club can do for you by visiting the psych club on Facebook.

The exams, quizzes, and paper will be described on handouts that I will give you later.

Other Policies:

YOU ARE RESPONSIBLE FOR UNDERSTANDING THE FOLLOWING POLICIES AND THE OTHER CONTENTS OF THIS SYLLABUS. NO EXCEPTIONS WILL BE MADE.

Assignment Due Dates: If any part of an assignment/paper is turned in after the class session in which it is due without a pre-approved excuse, the grade for the entire assignment will be reduced by 25% for each solar day that it is late. To get preapproval for turning in an assignment late, tell your professor before the due date if, for example, you have surgery scheduled. You are responsible for computer failures, just as you would be if you were a working professional. It is your responsibility to back up all of your work so that none of it is lost, to store your files in safe places, to print your paper well in advance of the class in which it is due, and to get your paper done on time. Computers and printers let everyone down at inconvenient times, so if you want to be successful, anticipate and prepare for these problems.

Accommodations for Disabilities: Notify the professor immediately of any needed accommodations for documented disabilities at the beginning of the course. If you are expecting accommodations at any time in this class, you must speak Disability Support Services in Rendleman 1218 before you need accommodations. According to SIUE safety and procedures policies, students with disabilities have the option of developing a written plan for evacuation in the unlikely event of an emergency that requires evacuation. If any student with a disability would like to develop a written evacuation plan for this class, please contact the instructor.

Attendance Policy: I don't normally take attendance, but exams and quizzes are written in a way that rewards students who attend regularly; past students of this course can vouch for this. If you ever miss a class, please do not expect your professor to teach you everything you missed. (I can't adequately go over a whole class in one meeting or email.) It is your responsibility to find out what you need to catch up on by talking to a classmate.

The Psychology Department's Policy on Incomplete Grades: It is the student's responsibility to officially withdraw from a course by the dates set by the University if the student is not intending to complete the course. Students who do not withdraw and have not completed the course will receive an F. Only under special circumstances a faculty member may agree to give a student an Incomplete (INC) grade in order to allow the student to complete the remaining work for the course not later than the end of the following semester. An INC is never automatic but must be approved by the professor. If a professor agrees to give a student an INC grade, the professor and the student will fill out a form (Memorandum of Incomplete Grade) indicating why an INC is being given. One copy of the completed form will be given to the student, one copy will be given to the professor, and the Department of Psychology secretary will keep one copy. If the work is not completed by the time specified on the Memorandum of Incomplete Grade form, the grade will be changed from INC to F.

The Psychology Department's Policy on Plagiarism: Plagiarism includes either presenting someone else's words without quotation marks (even if you cite the source) or presenting someone else's ideas without citing that source. If you plagiarize, your instructor cannot evaluate your understanding of the topic. When paraphrasing from another source, at the very least the student should change the wording, sentence syntax, and order of ideas presented in the paper. Ideally, the student will integrate ideas from multiple sources while providing critical commentary on the topic in a way that clearly identifies whether words and ideas are those of the student or are from another source. Plagiarism is one type of academic misconduct described in SIUE's Student Academic Code (<http://www.siue.edu/policies/3c2.shtml>). University policy states that "Normally a student who plagiarizes shall receive a grade of F in the course in which the act occurs. The offense shall also be reported to the Provost." (<http://www.siue.edu/policies/1i6.shtml>). The University policy discusses additional academic sanctions including suspension and expulsion from the University. To insure that you understand how to avoid plagiarism, we encourage you to review the information on plagiarism provided on the Department of Psychology web page at <http://www.siue.edu/education/psychology/plagiarism.shtml>.

Exams: You will receive a handout prior to each exam that describes the exam format, general tips about how to study, and warnings about a few topics that could appear on the exam even though they were only briefly discussed in the textbook or in class. (You can safely assume that all topics that are extensively discussed might be tested.)

If you miss an exam, your opportunity to make up the missed exam will be during the final exam session at the end of the semester (immediately after you complete the last exam). However, you must inform your professor in advance if you intend to make up an exam during the final exam period. If you miss the last exam for any reason not previously approved by your professor, you will earn a zero on the final. Please note that the last exam will be given on the date scheduled by the university for final exams, and you may not take the last exam at any other time without a pre-approved excuse.

Exams and assignments are designed to assess your independent performance in meeting the course objectives. Students who do not work independently on an exam or assignment (i.e., who copy work from a classmate, published material or some cheat material) will receive an F in the course. Students who help another student cheat/copy/plagiarize on any graded work will also receive an F in this course.

The Psychology Department's Policy on Course Evaluations: You will not be eligible to take the final exam in this course unless you present proof of having visited the online course evaluation. You are free to skip any of the evaluation questions you wish, but you must print the proof-of-visitation page (the last page shown, after responses are privately submitted) to be eligible to complete the final exam. The procedure for completing the confidential, anonymous and brief course evaluation online will be described toward the end of the semester.

Notes: *GF* refers to the Gravetter and Forzano (methods) text; *GW* refers to the Gravetter and Wallnau (statistics) text. When an assignment is due on a particular day, it is due at the class start time. Quizzes and exams begin at the class start time.

WEEK	TOPIC	BEFORE CLASS CAREFULLY STUDY...
Week 1	What Science Can Accomplish	Syllabus, <i>GF</i> Chs. 1 and 2
Week 2	What Statistics Can Accomplish	<i>GW</i> Ch. 1
Week 3	Basic Methods and Ethics of Psychological Science **QUIZ #1 (on statistical notation) on Tuesday	<i>GF</i> Ch. 4
Week 4	Measurement, Reliability and Validity in Psychological Research **QUIZ #2 (on research designs and variables) on Tuesday	<i>GF</i> Ch. 3
Week 5	**EXAM #1 on Tuesday; On Thursday: Discussion of APA-style research reports and distribution of "Big Paper" Handout	Before Thursday, study this APA-formatted template: http://goo.gl/9qxYq
Week 6	Distributions and Central Tendency **CITI Training DUE on Tuesday	<i>GW</i> Chs. 2, 3
Week 7	Variability and SPSS Basics **QUIZ #3 (on APA format) on Tuesday	<i>GW</i> Ch. 4
Week 8	Correlation and Regression	<i>GW</i> pp. 466-481 and 498-501 of Ch. 15
Week 9	Survey Methods **QUIZ #4 (on variability, correlation, and SPSS) on Tuesday	<i>GF</i> pp. 373-386 of Ch. 13
Week 10	**EXAM #2 on Tuesday; on Thursday: crucial preparation for paper (SPSS, APA format, etc.)	
Week 11	z-Scores, Standardized Distributions and Writing Tips	<i>GW</i> Ch. 5
Week 12	Probability	<i>GW</i> Ch. 6
Week 13	Online class and quiz (#5) covering crucial material (see Blackboard)-- **QUIZ #5 must be completed by midnight Tuesday; on Thursday: The Distribution of Sample Means	<i>GW</i> Ch. 7 (for Thursday)
Week 14	Continue with The Distribution of Sample Means on Tuesday; On Thursday: bring your paper rough draft for critiquing and a better grade	
Week 15	Hypothesis Testing covered on Tuesday and Thursday; **PAPER DUE on Thursday	<i>GW</i> Ch. 8
Finals	**EXAM #3 at time designated by the university	

Your professor may need to make minor changes to this syllabus. Changes (if any) will be announced in class and you will be responsible for adhering to those changes whether you have been attending class regularly or not.

Advice (Verbatim) from Former Psyc 220 Students

- Study, study, study. Work problems from the book, look up terms, and know all of the symbols. Use Dr. Rose's study guides. They are very helpful. On an exam if you get stuck, don't panic. The answer is usually easier than you may think.
- My advice would be to keep on top of the formulas as they evolve in the chapters. If you do not understand the formula for SD you will not understand the formula for standard error. My only other recommendation would be to not take a condensed summer version of this course at 8:00 am.
- The best advice I could give student who take this class is to read your book before class, it truly helps. Also, make sure you go over things you have learned often, it fades quickly if you don't keep on it. Lastly, look for other sources to get more information. There are tons of places on the internet that talk about stats.
- On the 1st day of class I was presented with the best idea ever. Dr. Rose said, "Challenge yourself to learn something new." This stuck with me though the whole semester because I was at first so afraid that I was not going to be able to do it because of all the math. The math was simple! It's so exciting that I feel confident in my work in stats and its all because I changed my attitude and challenged myself to learn something new. To all the new students who have their doubts, I say don't be scared! Enjoy the challenge and excitement of learning something new!!
- Pay attention to class-the lectures are absolutely necessary! Print the notes off blackboard for review of this material. Read the book and make sure to notice (write out) terms and definitions as you go along. Practice computations.
- Read all the assigned chapters and take a lot of notes. It will help keep you focused.
- Try to do the readings because the material will make more sense and you will more likely remember it. Start studying for quizzes and tests before the night before. Study examples given in class and in the text. Don't blow off class.
- Keep up on reading, especially for the quizzes.
- Play around with SPSS to better understand the concepts discussed in class. If your research subject seems too messy to correlate, it probably is.
- Future students should read the assigned material, since half of the test questions come from the book. This class is not hard when you come to class and pay attention.
- Memorization is pointless. Understand concepts backwards and forwards studying them before being tested on them. It will increase your overall understanding along with your class GPA.
- Read the text book, it will help you to better understand the material in class. Also, don't fall behind because it is difficult to catch up.
- My advice to future students of this class would be to do the practice problems in the book! The book is great and has TONS of practice problems with answers. Also, (and obviously) you need to do the reading! I can't believe I actually have a shot at getting and A in statistics!