LAB SYLLABUS: LINKED SECTIONS OF PSYC 300-003/301-003
Professor James Sanford, Fall 2006
Friday: 8:30am-12:20am (209)
Innovation Hall, Room 330

Lab Instructor: Richard Hermida
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Office: Robinson B 213A
Office Hours: Wednesday 2:00-3:00, or by appointment
Phone: (765)-571-0864
Mailbox: Located in hallway of David King Hall across from the Graduate Psychology Office in the graduate student section

Required Texts

Gravetter, G. A., & Wallnau, L.B. (2007). *Statistics for the behavioral sciences* (7th ed.). Belmont, CA: Thomson.
Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2006). *Research methods in psychology* (7th ed.). New York: McGraw-Hill.
Dunn, S. D. (2004). *A short guide to writing about psychology*. New York: Pearson.

Recommended Text

Recommended for lab: *Publication Manual of the American Psychological Association* (5th ed., 2001). Washington, D.C.: American Psychological Association.

Required Materials

Pen/pencil
Calculator (that computes addition, subtraction, multiplication, division, and square root and that can hold simple previous calculations in memory)
Computer disk (A:), jump/flash drive in order to save any computer work completed in lab
Statistics textbook (Gravetter & Wallnau)
Writing textbook (Dunn)

Course Goals

Reinforce concepts statistical covered in lecture and provide hands-on use of the research methods
Practice statistical calculations and learn to use SPSS statistical software for data analysis.
Understand the role of experimentation in psychology and learn about experimental design
Understand and apply statistical principles in research design
Learn how to access and use psychological databases (e.g., E-Journal Finder and PsycINFO)
Gain experience proposing and conducting your own psychological research
Learn how to write a scientific report in APA format

Expectations

I expect all students to behave in a dignified manner during all aspects of lab. This means showing up to labs on time, completing assignments in a timely manner, and acting in class with a manner that promotes a healthy and positive learning environment.

Policies

Lab attendance is very important and strongly encouraged. If a student misses an in-class assignment or experiment, this cannot be made up at a later date. Homework *worksheets* will be accepted up to one week late for a 10% max grade reduction per day (aka 1st day late, max possible is 90%, 2 days late 80%, etc). Homework worksheets that are more than a week late (30% max credit) will no longer be accepted for credit. Homework writing assignments must be handed in the day they are due. I will only accept writing assignments BEFORE 3pm on the Friday they are due. I would prefer you turn them in at the beginning of class, but if for some reason your printer doesn't work at 8am, or your dog eats it, etc, I will give you until 3:00pm to BOTH e-mail me a copy and place a hard copy in my mailbox/in my hand. If a student cannot attend class and wishes to turn in a homework on-time, the assignment must emailed to me prior to the beginning of the class on which the assignment is due. If you know in advance you'll be absent, *please* leave a hard copy in my mailbox as well. All homework worksheets are due within the first 10 minutes of the lab period.

You must give me HARD COPY of all assignments you turn in. If you email me an assignment, you must also print it off and leave it in my mail box prior to the due date. Writing assignments must be typed and double spaced, in 12pt font with 1inch margins. The only acceptable font for submitted assignments is Times New Roman. Since spelling and grammar check is available on word processing systems, any errors of this type will count against the grade. Save all your corrected assignments; you will be required to turn in corrected drafts along with final copies of papers.

Help Sessions
This lab is scheduled to run from 8:30- 12:20 every Friday. Traditionally, labs usually run from approximately 8:30- 11:30. As such, I will be holding help sessions from the end of lab to 12:20 every Friday after class. In these help sessions we will discuss and work out major problems and topics that have been collected from students prior to Friday's lab (more on this later). Attendance is optional and purely for your own benefit.

As previously stated, help sessions (and class focus to a lesser extent) will revolve around major problems and topics offered by students. To help me better prepare for these help sessions, I kindly ask students to submit to me a list of problems (topics, points, etc…) to me by Thursday at 8:00 P.M. This can be done either in hard copy form or email.

Teaching Methods and Philosophy
In general, my teaching method will be very fluid and varied. Some of lab will be lecture, some will be interactive learning (between students and myself), and some learning will involve interactive learning (between students). In general, I will try to find what approach works best within a given group of students. As such, I will often solicit feedback from students regarding lab. Constructive criticism is welcomed and encouraged. I strongly believe in undergraduate education and as such will work with you to help you succeed as much as you help yourself succeed. Please do not hesitate to use office hours, help sessions, etc…

Honor Code
All provisions of the GMU Honor Code will be followed in this class. Although student discussion is encouraged, and labs will sometimes involve group work, all writing assignments must be completed individually. Lab papers are expected to be the student's own work. Students may use books, notes, and consult other sources in preparing lab reports. Under no circumstances are you to collectively write papers with another student. This is considered to be plagiarism and plagiarism of any kind will not be tolerated. Work such as library references, statistics, and reports of the research studies should be each student's own work. Quotations in lab reports should be minimal and the appropriate citation must be given.

Grading
Lab counts for 30% of the total grade in PSYC 300-301. You are responsible for earning your own grade. I have outlined all assignments and expectations in the most objective way possible, and now you must do the work and put in the effort for the grade you deserve. Your lowest in-class assignment grade will be dropped. This means you can miss one lab during the semester and your grade will not suffer. In order to receive full credit for any statistics assignment you must show all your work!

Homework: Will range from statistics practice problems, to research methods assignments, to research papers. Research paper drafts will be broken up into sections and given separate, varying point values (aka Introduction worth 25pts, abstract worth 10pts, etc). Homework and in-class assignments will mostly be graded on effort and completion of all requirements (doing all the problems, showing your work, including all the required information).

In-Class Assignments: May be statistical calculations, research method worksheets, SPSS assignments, presentations and/or class activities. Most in-class assignments will involve some collaboration with classmates, but each student must turn in his/her own work. Your lowest in-class assignment will be dropped.

Quizzes: There will be four in-lab quizzes throughout the semester. Quizzes will be graded on accuracy of answers and work shown. Your lowest quiz grade will **not** be dropped (aka you must come to lab on days with a quiz).

Final Papers: there will be 2 research methods papers included in your lab grade. You must turn in **2 copies** of each final paper as well as all corrected drafts in order to receive full credit. No final papers will be accepted late.

Writing and Technology.

PSYC 301 is an approved writing intensive course. This means that in the laboratory you will have multiple writing assignments that build upon one another and that the total amount of writing equals or exceeds GMU's specified minimum. The lab will include an introduction to Statistical Package for the Social Sciences (SPSS) and on-line searches using PsycINFO, and other electronic databases, meeting part of the technology-across the curriculum requirement. Most extra-class communications will be completed by e-mail. If you are uncomfortable with any of the technology required in this course, I would suggest going to the STAR center: http://media.gmu.edu/.

Students with Disabilities:

If you are a student with a documented disability and require some academic accommodation, please see me and contact the Disability Resource Center (DRC) at (703)993-2474. All academic accommodations must be arranged through that office.

Grading Criteria

Assignment type	Number of Points	Total # of assignments	Total possible points
Homework worksheets	10	5	50
In-class assignments	10	11	110
Quizzes	15	4	60

Grading of writing assignments

Observation Data Collection assignment (homework #5)	15 points
Observation Write-up *(homework # 6- method & results)*	20 points
Survey Write-up *(homework #7- method and results section)*	20 points

PAPER 1
Draft of Introduction (homework #8)	25 points
Draft of Discussion (homework #9)	10 points
Data Collection (homework #7 part 2)	10 points
Completed Paper (homework #10)	100 points

FINAL PROPOSAL (*see other page for detailed instructions*)
Draft of Abstract	10 points
Completed Final Proposal	100 points
Presentation of Final Proposal to Class	20 points

There will be a total of 550 points available. Your lab score will simply be the number of points you score divided by the total number of points available.

Tentative Schedule*

Underlined= items to be returned in class
Bold= in-class activities
Italics= assignments to be turned in at the beginning of the period.

Date	Class	Assignments (Due the following week)
Week 1 9/2	• Syllabus • Goals of the lab • APA style overview and intro to research design • Scales of measurement (Stats C1) • Organizing data • **In-class assignment #1**	• Homework #1
Week 2 9/9	• Return in-class assignment #1 • Frequency distributions, percentiles (S 2) • Ethical issues (R 3) • In-class assignment #2 • *Turn in Homework #1*	• Homework #2

Week 3 9/16	• <u>Return homework #1 and in-class assignment #2</u> • Central tendency (S 3) • **In-class assignment #3 (SPSS exercise 1)** • *Turn in homework #2*	• Homework #3
Week 4 **9/23**	• <u>Return homework #2 and in-class assignment #3</u> • **Quiz #1** • Variability (S 4) • Z-scores, normal distribution (S 5) • **In-class assignment #4 (SPSS exercise 2)** • *Turn in homework #3*	• Homework #4
Week 5 9/30	• <u>Return homework #3 and in-class assignment #4</u> • Observational research (R C4) w/ and w/o intervention • Operational definitions • Inter-rater reliability • **Small group discussion about observational study** • **In-class assignment #5** • *Turn in homework #4*	• Homework #5: Conduct observational study: bring in collected data, along with a written summary, including a list of variables, operational definitions and means. Turn one copy in and save a copy for yourself.
Week 6 10/7	• <u>Return homework #4 and in-class assignment #5</u> • Survey Research (R C5) • Different sections of an APA-style paper. • How to write the Method and Results sections of an APA paper • **Complete Surveys** • **Entry of survey data into SPSS** • **Writing Workshop** • **In-class assignment #6** • *Turn in homework #5: observational study*	• Homework #6: Write method and results section of *observational* study.
Week 7 **10/14**	• <u>Return homework #5 and in-class assignment #6</u> • **Quiz #2** • Correlation/ Regression (S C16) and research • Discussion of survey results • **Memory Experiment** • **Entry of memory data into SPSS** • **In-class assignement #7 (SPSS exercise 3)** • *Turn in homework #6: observational study Method and Results section*	• Homework #7 is as follows: 1. Write method and results section for *correlational* study. 2. Collect data from 3 people outside of class using memory study materials
Week 8 10/21	• <u>Return homework #6 and in-class assignment #7</u> • Go over results from memory study • Literature review in APA-style papers • Probability (S C6) • **In-class assignment #8** • **Workshop on writing an introduction** • *Turn in homework #7: Turn in method and results section from correlational study and bring memory study data to class*	• Homework #8 is as follows: 1. Print and read Roediger & McDermott (1995) article. 2. Obtain and read 3 pertinent articles. 3. Write draft of introduction section for Paper 1
Week 9 **10/28**	• <u>Return homework #7 and in-class assignment #8</u> • **Quiz #3** • Sampling distributions (S C7) • Intro to hypothesis testing (S C8)	• Homework #9 is to write discussion section for Paper 1

	• **Workshop on writing a discussion section** • **In-class assignment #9** • *Turn in homework #8: draft of intro for paper 1*	
Week 10 11/4	• <u>Return homework #8 and in-class assignment #8</u> • Independent groups designs (R C7) • **In-class assignment #10: Peer critique of discussion section** • *Turn in homework #9: discussion section of paper 1(bring 2 copies!)*	• Homework #10 is to complete final version of Paper 1 and bring 2 copies to class.
Week 11 11/11	• <u>Return homework #9 and in-class assignment #10</u> • Independent measures t-test/ANOVA (S-9, 10, 13) • **Discuss ideas for final proposal** • Discuss outline for final proposal • **Workshop on proposal abstracts** • **In-class assignment #11** • *Turn in homework #10: final version of Paper #1 (2 copies please!)*	• Homework #11 is as follows: 1. Begin literature review for final proposal 2. Obtain and summarize at least 5 relevant articles for final proposal 3. Write an abstract for final proposal
Week 12 11/18	• <u>Return in-class assignment #11</u> • Repeated measures designs & t-test/ANOVA • Complex designs • **Quiz #4** • **In-class assignment #12 (SPSS exercise 4)** • *Turn in homework #11: Turn in articles and summaries for final proposal, and abstract for final proposal*	• Homework #12 worksheet • Rough draft of final proposal • Bring 3 copies of rough draft to class
Week 13 **11/25**	• THANKSGIVING BREAK • (I don't see you to go over Two-Factor ANOVA, Ch15, before exam)	***Exam #5 11/30**
Week 14 12/2	• <u>Return Paper 1, homework #11 (article summaries & abstract) and in-class assignment #12</u> • Estimation/single-case and small n designs • Discuss presentations • **In-class assignment #13: Peer review of final proposal** • *Turn in homework #12, bring 3 copies of final proposal draft*	• Correct proposal draft to turn in as final copy • Prepare 5min presentation of final proposal
Week 15 12/9	• Quasi-experimental designs, non-parametric statistics • **Student presentations of final proposal** • *Turn in final proposal (2 copies please!)*	

*Note: This is a tentative schedule, and topics and assignments are subject to change. Any changes will be announced in class

<u>Final Proposal Assignment -Psychology 301</u>

The last/second full writing assignment project is to be an original experimental proposal or partial-replication of an experiment relevant to topics in Psychology. The student may "propose" a project from any area of psychology. Correlational or observational studies are acceptable but studies with at least one variable to manipulate are encouraged.

Students are required to write a proposal using APA format. A minimum of five references is required. The proposals must be projects that are plausible in that the project could realistically be completed. For example, if I wanted to test 100 amnesic patients, it would not be plausible because it would be extremely unlikely that I would have access to 100 amnesic patients.

Since this is a proposal of research to be conducted in the future, the paper should be written in the future tense: Below are a few examples:

a.   "The present project is designed to investigate whether older adults recall more items than younger adults."
b.   "The participants will be tested in a laboratory setting."
c.   Participants will be presented with lists of words from……"

The proposals must include the following:

1. An Introduction section that introducers the question/problem and includes a review of the literature relevant to the topic. The hypothesis should also be stated at the end of the introduction.

2. A Method section that includes the design (e.g., a 2 X 2 mixed factorial), participants, materials and procedure. All of the sections should be written in appropriate APA format.

3. A Results section should briefly describe how the data *would* be analyzed and what the expected result *would* be based on the hypothesis. For example, if a correlational study is done, the student would write something such as "A pearson-product correlational analysis will be conducted to determine the strength and direction of the correlation between anxiety and depression. This is likely because ……"

4. A Discussion/Conclusion section should include the following:

   a. What would this research contribute to the literature if the hypothesis were supported?
   b. A discussion of what would be done next if the hypothesis were supported. In other words, what would be the next step in the research or what would the researcher do next.
   c. Additional ideas if the hypothesis were not supported could be added. Of course, this would be hypothetical.
   d. A critique of their own design or the limitations of the study.

5. An Abstract should be included as well. Students may include an expected outcome rather than a real outcome. Again the text should be written in the future tense. For example, "It would be expected that older adults would recall fewer words than younger adults."

All students must attach the measures/materials to be used (e.g., a survey). An exception will be made if the survey would have to be purchased by the student. However, this is a rare exception.

When the final proposals are turned in, students must include the following:
a. A copy of all articles referenced in the report, copies of the measures, etc. mentioned above
b. Two copies of the final paper. If all of these are not included, there will be a grade reduction**.**

Final Presentation

Each student is required to present the proposal to his/her classmates the last day of lab class. It is an opportunity for students to demonstrate to their classmates what kind of research they are interested in and what they think the study would reveal. This presentation should be considered as an informal conversation with their classmates as well as a good opportunity to "practice" speaking in front of others.

The extra copy of the papers will be given to Dr. Linda Chrosniak for her files. We keep copies of all papers written in Psychology 301 to minimize plagiarism and to use in writing assessments for the university.