

Research, Design, & Analysis
Psychology 302 (Sec 05): Fall Semester 2009
 12-1:15 PM MW Rm343 MARB

Instructor: Scott C. Steffensen

Office: 1050 SWKT
 422-9499

scott_steffensen@byu.edu

Office Hours:

TA: JoAnn Petrie

Office: 11th floor SWKT
 422-5307

joann_petrie@byu.edu

Office Hours:

Course schedule

Lectures/Discussions/Labs/Tutorials			Assign.	
Date	#	Topic	#	Due
September				
Mon. 30 th	1	Introduction <i>Rd Chapter 1</i>		
Wed. 02 nd	2	Lab 1: Taking measurements: The blind spot and two-point discrimination <i>Assignment 1: Write a 1 page lab report on your observations and conclusions</i>	1	
Wed. 09 th	3	Lecture (Chs 1,2): Overview of Psychological Research and Explanation of Scientific Psychology		1
Mon. 14 th	4	Lab 2: Participation in ongoing human subject's EEG project <i>Assignment 2: Write a 1 page lab report on EEG project</i> <i>Assignment 3: Write a critique of assigned original research article</i>	2,3	
Wed. 16 th	5	Discussion of research article <i>Rd Chapter 3</i>		3
Mon. 21 st	6	Lecture (Ch 3): Exploring the Literature of Psychology <i>Assignment 4: Present a critique of chosen original research article</i>	4	
Wed. 23 rd	EXAM I (Coverage: Chps 1-3)			
Mon. 28 th	7	Presentations 1-6		4
Wed. 30 th	8	Presentations 7-12		4
October				
Mon. 05 th	9	Presentations 13-18		4
Wed. 07 th	10	Presentations 19-24 <i>Rd Chapter 4</i>		4
Mon. 12 th	11	Presentations 25-30 <i>Rd Chapter 6</i>		4
Wed. 14 th	12	Discussion: Formulating your research project (divide up into groups of 4)		
Mon. 19 th	13	Tutorial: Library (searching databases) <i>Rd Chapter 8</i>		
Wed. 21 st	14	Tutorial: Library (searching databases)		
Mon. 26 th	15	Lecture: (Chs 4,6,8): Observations in Psychological Research		
Wed. 28 th	EXAM II (Coverage: Chps 4,6,8)			
November				
Mon. 02 nd	16	Tutorial: Writing IRB protocols <i>Assignment 5: Write an IRB based on your proposed research project</i>	5	
Wed. 04 th	17	Discussion: Performing your research project <i>Assignment 6: Carry out your research project</i>	6	
Mon. 09 th	18	Discussion: Performing your research project		5
Wed. 16 th	19	Discussion: Performing your research project		
Mon. 16 th	20	Discussion: Performing your research project		
Wed. 18 th	21	Discussion: Data analysis		
Mon. 23 rd	22	Discussion: Data analysis		
Mon. 30 th	22	Research project presentations Groups 1,2		6

<u>December</u>				
Wed. 02 nd	24	Research project presentations Groups 3,4		6
Mon. 07 th	25	Research project presentations Groups 6,7		6
Wed. 09 th	26	Research project presentations Groups 7,8		2,6
Tues. 15 th	FINAL EXAM in the Classroom from 11-2 PM			

Textbook

The following textbook is required: Elmes, D.G., Kantowitz, B.H. & Roediger, H.L. Research Methods in Psychology (8th Edition). Belmont, CA: Thomson/Wadsworth

Course Format

Assignments: There will be 6 assignments during the semester. They will be due on the assigned days indicated in the schedule (columns at right). They will consist of 2 one-page lab reports, 1 written critique of an assigned original research article, one presented critique of an original research article of your choosing, 1 IRB proposal, and 1 research project (poster + presentation). The breakdown of points for the assignments is as follows:

Lab 1 Report: This lab report will be observational with a little exercise in data analysis. In the first paragraph describe the first experiment (e.g., measurements made, methods, etc...) and what significant effects were found. In the second paragraph describe the second experiment, analyze the data, and report if there were any significant gender differences (show a graph of means, SEM, and report statistics). Report on what you did, what you observed, summarize the outcome, and speculate on how you might do it better if you were to experiment further. This report will be graded competitively.

Lab 2 Participation and Report: The second lab will be part of an ongoing human subject's research project. It will be participatory and observational. Some of you will serve as subjects in the experiment. We will record your EEG in association with a visual recognition task. Like the first lab, report on what you did, what you observed, summarize the outcomes that were reached by the data analysis, and speculate on how you might do it better if you were to experiment further. The subjects will not have to write the report. This report will be non-competitive. You will receive credit for completing the assignment. If you do not complete it to the satisfaction of the Instructor you will need to re-do it to receive full credit.

Critique 1: You will review an assigned original research article according to instructions on the attached Journal Critique Outline handout. Note: critiques do not have to be negative. Do NOT go over 2 pages or you will be deducted a full grade – this is a critique not a synopsis. Blackboard has an example of a good critique.

Critique 2: You will present an original research article of your choosing according to instructions on the attached Journal Critique Outline handout. It is recommended that you select a journal from the American Psychological Association. We will need to approve your article. You need to hand in a photocopy of the journal article with your critique.

Group IRB Protocol: You will be given a tutorial on IRB protocols as well as sample IRB protocols. You will then write an IRB protocol on the project that your group formulates, pending approval from the Instructor.

Group Research Project: Your group will formulate, design, perform, and analyze data in a research project of your own choosing, pending Instructor approval. You will then present your research project to the class. All of the members of your group should participate in all aspects of the project including the presentation. The presentation will be in the form of a poster session in class. The poster will be used at the April Fulton Mentored Research Conference. Prizes may be awarded.

Note on Late Assignments: All assignments are due on the date indicated above. Late assignments will be docked one full grade for each day (or fraction thereof) late. If a class experiment or critique is late by 3 days or more, the maximum possible grade is a C-. There will be no exceptions.

Exams: There will be two midterm exams. They will be multiple choice, short answer, true/false, fill-in-the-blank questions and will cover the chapter readings and discussions in class. The midterm exams will be held in the classroom. Total mid-term exam points will be 100.

Final: The final exam will consist of comprehensive questions regarding material covered in Midterm Exams 1-2 as well as an essay question regarding research design. As with the mid-term exams, the questions may consist of short-answer, matching, fill in the blank, true/false or multiple choice, etc. Total final exam points is 50.

Summary of point

Summary of Assignment/Exam Points

#	Assignments	Specifics	Pts
1)	Lab Report	Measurements and analysis	25
2)	Lab Report	EEG Study	25
3)	Critique	Written critique of assigned original research article	50
4)	Critique	Presentation critique of chosen original research article	50
5)	IRB Protocol	Proposal of Group Research Project	25
6)	Research Project	Group projects: written and oral presentation	100
		Total assignment Points	275
	Exams		
	Midterm	Exam 1 (Chapters 1-3)	50
	Midterm	Exam 2 (Chapters 4,6,8)	50
	Final	Exam	50
		Total Exam Points	150
		Total Points	425

Evaluating Student's Performance and Establishing Grades:

Total Points = 475. Grades (% or above): A: 93%; A-: 90%; B+: 87%; B: 83%; B-: 80%; C+: 77%; C: 73%; C-: 70%; D+: 67%; D: 60%; D-: 55%; E: <55%

Achieving Learning Outcomes

Each program at BYU has developed a set of expected student learning outcomes. These will help you understand the objectives of the curriculum in the program, including this class. To learn the expected student outcomes for the programs in this department and college go to <http://learningoutcomes.byu.edu> and click on the College of Family, Home and Social Sciences and then Psychology. The objectives of the Psychology department's undergraduate curriculum are closely matched to those advocated by the American Psychological Association, the discipline's primary professional body. Graduates will:

- (1) Be able to demonstrate that they understand and can apply basic research methods in psychology, including research design, data analysis, and interpretation of results in light of previous findings.
- (2) Be able to use computers and other research-related technology to competently collect, access, and manage information, communication, and other purposes.
- (3) Be able to express realistic ideas about how to implement their psychological understanding, skills, and values in occupational and family-related pursuits in a variety of settings.
- (4) Be able to critically reflect on the content of psychology as well as on disciplinary values in light of their knowledge of and commitment to the restored gospel of Jesus Christ and to sustain personal values that are true to the gospel while maintaining their serious study of psychology.

In addition, specific objectives for each topic in the course will be given at the beginning of each lecture above.

FHSS Writing Lab

To get help with your paper's organization, structure, focus, tone, and documentation style, you can go to the FHSS Writing Lab in **1051 JFSB** to meet one-on-one with a peer advisor. All advisors are students from our college and are trained in APA, Turabian, and some AMA and MLA. To prepare for a tutorial, take a copy of the assignment, a hard copy of your draft, whatever stage it may be in, and a list of questions and concerns you have about your paper. Drop in or make an appointment: **Monday through Friday 9:00 am – 3:00 pm, closed Tuesday and Friday from 11-12 (for devotional and staff meeting)**. For more information, go to <http://fhsswriting.byu.edu> or email: fhss-writinglab@byu.edu

Honor Code

In keeping with the principles of the BYU Honor Code, students are expected to be honest in all of their academic work. Academic honesty means, most fundamentally, that any work you present as your own must in fact be your own work and not that of another. Violations of this principle may result in a failing grade in the course and additional disciplinary action by the university. Students are also expected to adhere to the Dress and Grooming Standards. Adherence demonstrates respect for yourself and others and ensures an effective learning and working environment. It is the university's expectation, and my own expectation in class, that each student will abide by all Honor Code standards. Please call the Honor Code Office at 422-2847 if you have questions about those standards.

Plagiarism

It is an act of plagiarism to "borrow" ideas or quotes from former students' old papers and from the papers of students presently taking the course with you. Plagiarism also includes quoting or paraphrasing passages from any of your references without giving proper credit to the real authors (i.e., an APA-style citation), because doing so implies that this information came from you. Presenting the ideas of others as one's own is called plagiarism. Plagiarism, as defined by the BYU Honor Code, is a form of intellectual theft. It is an act of fraud; it is dishonest, deceitful, unethical, and can lead to serious and lasting negative consequences for your academic and professional career. For this reason, please follow the course guidelines for when and when not to read other 302 students' papers (including those from other sections) or have them read yours. In addition, please use only those sources that meet the course criteria for acceptable reference materials.

Academic Honesty

While all students sign the honor code, there are still specific skills most students need to master over time in order to correctly cite sources, especially in this new age of the internet; as well as deal with the stress and strain of college life without resorting to cheating. Please know that as your professor I will notice instances of cheating on exams or plagiarizing on papers. See <http://www.byu.edu/honorcode> for specific examples of intentional, inadvertent plagiarism, and fabrication, falsification.

Students With Disabilities

Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability that may impair your ability to complete this course successfully, please contact the University Accessibility Center located in 2170 WSC (801-422-2767). Reasonable academic accommodations are reviewed for all students who have qualified documented disabilities. Services are coordinated with the student and instructor by the SSD office. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures. You should contact the Equal Opportunity Office at 301-422-5895, D-282 ASB.

Preventing Sexual Harassment

Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education and pertains to admissions, academic and athletic programs, and university-sponsored activities. Title IX also prohibits sexual harassment of students by university employees, other students, and visitors to campus. If you encounter sexual harassment or gender-based discrimination, please talk to your professor; contact the Equal Employment Office at 801-422-5895 or 1-888-238-1062 (24-hours), or <http://www.ethicspoint.com>; or contact the Honor Code Office at 801-422-2847.

Cell phones and electronic devices in class

Cell phones should be turned off in class and computers are welcome as long as you are taking notes and not distracting others (surfing the web, answering email, playing games etc.)

Flu Policy

As are all large communities, BYU is preparing for the potential of the H1N1 influenza virus to spread rapidly throughout the campus during the coming winter. Details of BYU's preparation, and advice on what you can do to prepare, can be found at flu.byu.edu. Please read it! In order to contain any possible infection, the administration has advised course instructors to ask any student who is feeling sick with flu-like symptoms (fever with either sore throat or cough) to remain home, away from class and away from all large gatherings. Sick students should remain at home until at least 24 hours after the fever has gone away. Students should also call their doctor or the student health center for advice as soon as possible. The administration has asked course instructors to provide adequate make-up opportunities for all work missed during a flu-like illness. Accordingly, I will allow all time as needed to miss class during an illness and to make up work at a reasonable time afterward, provided the student provides a doctor's note to document the illness. ALL students who feel sick with fever and sore throat or cough should call the doctor and visit if so advised. If advised to visit the doctor, please obtain a note whether or not you are diagnosed with the flu! When you are ill please call or email your TA or the instructor as soon as possible, and *continue to communicate* with us until you are well.

DISCLAIMER: This syllabus is subject to change by Instructor

PSYCH 370

Journal Critique Outline

Title

Is the title appropriate for the article? Does it reflect what the article states as found in the study? Is it informative rather than “cute”?

Abstract

The abstract should be concise and describe all the pertinent findings of the study. Make sure what is said in the abstract is actually what was found in the study. Have the authors embellished their findings or overstated their results in anyway? The abstract is important because this may be all that most readers look at.

Introduction

The introduction should provide an adequate review of the topic area and the rationale for the study. There should be some statement as to the hypotheses being studied and what the expected findings might be. There should be some statement or inference as to why this is an important study to do. There should be ample and current citations of appropriate research literature to support the research hypotheses.

Methods

In most articles the Methods section and the manner in which the results were analyzed and/or interpreted are typically the areas where the greatest criticisms can be registered. In the Methods section one should carefully examine the types of subjects utilized, what kind of variables were manipulated and whether there are extraneous factors that could have affected the subjects performance other than the independent and dependent variables under study. How rigorous were experimental controls utilized? How homogeneous or heterogeneous were the various subject groups under study? Are there age, size, sex, experience, or other variables that might explain the findings? What type of experimental design was utilized?

Results

Check and make sure that the experimental design utilized is, in fact, appropriate for the statistics used. If the appropriate data is present, check some of the calculations. How descriptive are the statistics? In most journals interpretation of results is reserved for the discussion section, so be sure you check the discussion section to ensure that the results have been interpreted properly. How are the results written up? Can you understand them? Finally, provide an example of a result in the paper to give some context regarding the study.

Discussion

In this section there should be a complete integration between all the above sections and the results, and their significance, should be discussed fully. What is the real significance of this article? Did the study really find/discover what it set out to do, or is the author presenting an apologetic smokescreen? Did the authors provide sufficient evidence to support their hypotheses? What about the real implications of the study, are they all addressed? Did the author critique the study and point out potential weaknesses or were these glossed over?

References

Go to the library or go on-line and check a couple of the references. Did the author cite the article properly and accurately reflect the findings? How current are the references? How much does the author cite his/her own research?

Note: Look on BB for an example of a good critique.