

Psychology 212A:
Experimental Methods and Data Analysis II
Fall 2009

Instructor: Dr. Stacey Beth Zaremba

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Classroom: Room 112
Class time: Tuesday & Thursday 2:35 – 3:45

Office Hours:

Monday	8:00 – 8:45
Tuesday	9:00 – 10:00
Wednesday	8:00 – 8:45
Thursday	1:15 – 2:15
Friday	by appointment only.

I am happy to meet with you during my office hours or at a previously arranged time. Please stop in if you have any questions or concerns about class in general or about your performance in this class. Don't let things snowball—that will be particularly dangerous in this semester, with the APA project running concurrently with learning new forms of statistics. If you are having trouble, come and see me as soon as possible.

Overall Course Goal: This course will further your understanding of how researchers in psychology go about studying the way individuals think, feel, act, etc. In this second course in the 2-part series of 211-212, you will be conducting your own research based on the design you created in 211. Our focus will be on learning the pragmatics of conducting research, the formulation of specific hypotheses, the selection and use of more advanced statistical techniques, and on completing a full APA-style report.

Course Objectives: By the end of this course, you should be able to:

1. Understand the Moravian College Human Subjects Policy as it pertains to psychological research such that you are able to write a proposal for approval by the Moravian College Human Subjects Institutional Review Board (HSIRB).
2. Evaluate a study in terms of the potential flaws in its design and suggest appropriate improvements where necessary.
3. Use basic *and advanced* statistical procedures appropriately in conjunction with specific designs, apply such statistical procedures using SPSS (Statistical Package for the Social Sciences), and graph the data using either SPSS or Excel.
4. Research a topic in an area of psychology using various electronic databases, such as PsycInfo, organize your findings into an appropriately formatted reference list, evaluate sources to determine their appropriateness for inclusion in a review of psychological literature, and make well-informed decisions about what sources are optimal to include based on their credibility and their content.
5. Plan and carry out a study, using a design that minimizes flaws and maximizes your ability to obtain data that accurately address your research question.
6. Write a research paper following the guidelines set forth by the American Psychological Association Publication Manual, further developing of your writing skills, both in general and with respect to scientific writing specifically.
7. Present your research results to a group of your peers.

Course Requirements and Grading:

In Class and Final Exams

There will be three exams over the course of the semester, as noted in the class schedule below. The exams may have both open and closed book portions, and may consist of question formats such as multiple choice, short answer, short essay and computational problems. The exact format of a particular test will be announced in advance of the test date. The first three exams will be administered in class and the final exam will be administered during the final exam period. The final exam will be a cumulative exam that will cover all of the material from the Spring semester. Makeup exams will not be administered. If you miss an exam your final exam will count twice – once for the final exam and second for the missed exam grade, provided you had extraordinary and documented excuse for missing the exam, as determined on a case by case basis.

Attendance and Class Participation

You are expected to attend all classes. If you must miss a class, it is still your responsibility to submit any assignments that are due that day *on that day*. (See policy on late assignments. You will also need to get notes and handouts. Excessive absences will be dealt with on an individual basis. The attendance requirement is necessary for two reasons: 1) The coursework is extremely layered and missing one day can put you behind for future meetings and assignments and especially in your project timeline; 2) Your fellow students rely on your presence, for providing feedback or participating in group activities.

If special circumstances arise that will cause you to miss more than one or two classes, you should contact the Learning Services Office. Participation, too, matters. I expect that you will come to class prepared to discuss and to ask questions about the course material.

HW & Lab Assignments

Assignments will be announced on a day-by-day basis. Assignments will include-both in-class and out-of-class SPSS laboratories, short reaction papers, and problems assigned from the end of the chapters in Heiman. Answers to all odd-numbered problems in Heiman can be found in the back of the book. You should get in the habit of testing yourself by completing these problems even if I do not assign them. There is no way to know if you understand the material well enough to test well unless you do the problems.

The APA Paper

You will be working throughout the semester on various aspects of the project you began designing last term. This project has multiple components that will build on each other, culminating in a final APA-style research paper, with at least 10 references, written in APA style. Small portions of the project will be submitted throughout the semester (e.g., Methods rewrite, HSIRB proposal, results draft and hypothesis with analysis). Further information regarding the expectations for and grading of the APA Paper components will be given in separate handouts.

Lastly, you should consider presenting your research project at the LVAIC Undergraduate Psychology Conference, which will be held at Moravian College in the Spring 2110 semester. Details will be forthcoming. The opportunity will be waived if the research project is inadequate in terms of sloppy design or material, or inadequate sample size.

Late Policy: For all assignments described above a half a letter grade will be deducted for each day late. Exceptions to this policy will only be made under truly extenuating circumstances (determined by me on a case-by-case basis), and NO exceptions will be made for technical difficulties. In addition, I will only accept work turned in by email if you have arranged with me to do so for that particular assignment.

Grading Rubric:

Exams:

In-Class Exams (3 x 10% each)	30%
Cumulative Final	10%

APA Paper:

HSIRB, Redraft of Methods and Draft of Results, List of Ho with Analysis	15%
APA Paper	20%

Other:

HW & Lab Assignments	15%
Attendance & Class Participation	<u>10%</u>
	100%

Extra Credit:

Students may earn up to 3 points extra credit applied to your final exam grade by participating in research projects through the department's subject pool. One point may be earned for each ½ hour of participation.

Grading Standards:

Grades will be assigned using the standards listed in the Student Handbook:

A = “achievement of the highest caliber” reflecting “independent work, original thinking, and the ability to acquire and effectively use knowledge.”

B = “higher than average achievement” which evidences “independent work and original thinking.”

C = average work for which “the student has devoted a reasonable amount of time, effort, and attention to the work of the course and has satisfies the following criteria: familiarity with the content of the course, familiarity with the methods of study of the course, and active participation in the work of the class.”

D = “unsatisfactory work, below the standard expected by the College” which indicates “work which in one or more important aspects falls below the average expected of students for graduation. The work is, however, sufficient to be credited for graduation.”

F = failure.

Students Please Note: It is within the instructor's purview to apply qualitative judgment in determining grades in the course.

Plagiarism and cheating:

The work you turn in for this class must be entirely your own. Your sources used must be properly documented. Do not use direct quotes in your APA paper. For more information on plagiarism and cheating, refer to the Student Handbook and the following website regarding academic responsibility at Moravian College:

<http://www.moravian.edu/studentLife/handbook/academic2.htm>.

Special Accommodations:

The Americans with Disabilities Act (ADA) provides for some accommodations to be made for students with certain disabilities. If you have such a disability and are willing to disclose it, you may take advantage of such accommodations. In order to do so, you are required to meet with Mrs. Laurie Roth in the Office of Learning Services (for learning disabilities and/or ADD/ADHD) or Dr. Ronald Kline in the Counseling Center (for all other disabilities). Accommodations cannot be offered until I have received authorization from one of these centers based on documentation of your disability. You should also consider taking advantage of the Learning Services Office if you are having difficulty academically in this (or any other) class. The office is located at 1307 Main St. (phone: 610-861-1510). **Any disabilities for which accommodations were made last semester need to be re-documented this semester.** Don't simply assume that accommodations from last semester will still hold.

Required Textbooks: Same as last semester

American Psychological Association. (2001). Publication manual of the American Psychological Association (4th Ed.). Washington, DC: APA. [In class schedule as: **APA**]

Heiman, G. W. (2001). Understanding research methods and statistics (2nd Ed.). New York: Houghton Mifflin Company. [In class schedule as: **H**]

Green, S. B., & Salkind, N. J. (2005). Using SPSS for Windows and Macintosh: Analyzing and understanding data (4th Ed.). Upper Saddle River, NJ: Prentice-Hall. [In class schedule as: **SPSS**]

Dunn, D. S. (2008). A Short Guide to Writing about Psychology (2nd ed.). New York: Pearson Longman. [In class schedule as: **D**]

Note: You should bring the Heiman text to class every day. I will announce in advance the days on which you will need to bring your other books to class.

Week:	Class topic/activities:	Readings and/or Assignments:
1		
	Sept 1 T Welcome Back...Now where were we?	Read Syllabus Carefully
	Sept 3 R Individual project meetings (Schedule to be determined on 9/1)	Review your final paper from 211 prior to our meeting (Bring updated Methods section to the meeting)
2		
	Sept 8 T Regression Discuss HSIRB process and proposals	Ch. 11
	Sept 10 R Regression /HSIRB Review	Ch. 11 / Draft HSIRB proposals Due
3		
	Sept 15 T Probability and making decisions about chance events	Ch. 12
	Sept 17 R Research Projects: Measures, Procedures, and other details	Final HSIRB
4		
	Sept 22 T Hypothesis testing (z-testing)	Ch. 13
	Sept 24 R Research Project Updates	Preparation for data Collection
5		
	Sept 29 T EXAM 1	
	Oct 1 R Single-sample study/ <i>t</i> -test	Ch. 14
6		
	Oct 6 T Single-sample study/ <i>t</i> -test Data Collection Begins.....	Ch. 14 Dunn Ch. 8
	Oct 8 R Two-sample study (independent-samples)	Ch. 15
7		
	Oct 13 T NO CLASSES – FALL BREAK	
	Oct 15 R Research Article Assignment	List of Hypotheses with Analysis Due
8		
	Oct 20 T Two-sample study (independent-samples)	Ch. 15
	Oct 22 R Two-sample study (dependent-samples)	Ch. 16
9		
	Oct 27 T Two-sample study (dependent-samples)	Ch. 16
	Oct 29 R EXAM 2	
10		
	Nov 3 T One-way ANOVA	Ch. 17
	Nov 5R One-way ANOVA	Ch. 17
11		
	Nov 10 T Two-way ANOVA	Ch. 18
	Nov 12 R Two-way ANOVA Writing Up Results	Ch.18 Dunn Ch. 6

Week:	Class topic/activities:	Text Chs/Assignments:
12		
Nov 17 T	Chi-square	Ch. 21 Draft of Results Section Due
Nov 19 R	EXAM 3	
13		
Nov 24 T	Wrap up and Work on Presentations	Dunn Ch. 9 and 10
Nov 26 R	No Class Thanksgiving – Enjoy!	
14		
Dec 1 T	APA Paper Presentations	
Dec 3 R	APA Paper Presentations	
15	Evaluations and An Attempt at Closure	
Dec 8 T	Final exam review	<i>Final APA Papers Due</i>
Finals Wk	Final exam schedule TBA	

Exam 1: Chapters. 12-14
Exam 2: Chapters. 15-17
Exam 3: Chapters. 18 and 21
Final exam: Cumulative – material from Psych 212

