

Psychology 212C: Experimental Methods and Data Analysis II
Spring 2007

Instructor: Dr. Sarah Johnson	When: T/R 9:10-11:10am
Phone: 610-625-7013	Where: 113 PPHAC
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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.

Required Textbooks: Same as last semester

American Psychological Association (2001). *Publication Manual of the American Psychological Association* (5th ed.). Washington, DC: APA.

Heiman, G. W. (2001). *Understanding Research Methods and Statistics* (2nd ed.). New York: Houghton Mifflin Company.

Specific 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 Evaluation:

Class Participation: Your attendance is required at every scheduled class meeting. This requirement is necessary for two reasons: 1) The coursework is extremely layered and missing one day can put you behind not just on that day's information and assignments but also for future meetings and assignments or in your project timeline; 2) Your fellow students rely on your presence, for providing feedback or participating in group activities. Each student can have up to 2 excused absences, which must be documented and be discussed with me before the absence, if at all possible, or else as soon after the absence as is physically possible. ***For each unexcused absence or absence beyond the 2 excused ones, your final course grade will be reduced by 1/3rd letter (e.g., B+ → B).***

If you have special circumstances that will result in missing more than one or two classes, you should contact the Learning Services Office. In addition, I reserve the right to *adjust* final grades based on the quality of participation, as follows:

- + A student who arrives on time and prepared for *every* class, participates in discussion frequently, but without overly dominating, is highly active in all group activities, and who generally contributes high quality ideas during class, may receive a boost of 1/3rd letter grade to his/her final course grade.
- No adj. A student who arrives on time and prepared for most classes, answers questions in class sufficiently and occasionally adds his/her own comments or questions, and participates sufficiently in group activities but does not seem especially engaged or show evidence of frequent high-quality contributions, will not receive any adjustment to his/her final course grade. I expect the majority of the class to fall in this category.
- A student who shows up late to class several times, prepares to some extent but adds little to class discussions or group activities, contributes to discussions/activities but shows evidence of poor preparation, or who repeatedly fails to follow instructions for an in-class activity may receive a reduction of 1/3rd letter grade to his/her final course grade.

For any case in which a reduction of course grade may be warranted, a warning note will be given to the student privately before the end of the semester in order to allow him/her the chance to modify the behavior and avoid the reduction. Grade boosts may be given without “warning.”

Homeworks/Labs: Where possible, assignments should be typed—computational problems may, of course, be written by hand—and proofread for clarity, spelling and grammar, etc, as appropriate. Unless otherwise noted, homework (i.e., take-home) assignments are due at the beginning of class, and in-class labs are due before leaving class. Late assignments will ***not be accepted*** (NO exceptions). If you miss an in-class lab due to unexcused absence, you will not be permitted to make it up. If you miss an in-class lab due to an excused absence, we will, if possible, arrange an extension in proportion with the excuse, as determined on a case-by-case basis. However, some in-class activities may not be possible to make up.

Exams: There will be three exams given throughout the semester and one cumulative exam given during finals period. Exam format may include multiple choice, short answer/identification, short essay, and/or computational problems. Exams can include questions on anything in the assigned text chapters and handouts even if not discussed in lecture. Study guides will be posted on Blackboard as each exam approaches. The study guides will include important terms to know for the exam as well as sample exam questions. You will be allowed to

use the grade on the cumulative final to replace a lower score from the earlier exams or to substitute for a missed exam provided you had an *extraordinary* and *documentable* excuse for missing the exam, as determined on a case-by-case basis. If you use the final exam to substitute for another exam, the final itself will then count twice in determining your final course grade.

Missed exams: If you have an extraordinary and documentable excuse for missing an exam, contact me as soon as possible and we will arrange to either administer a make-up exam or have you skip that exam and use the cumulative final to substitute for it. If you know in advance that you will be absent during an exam (e.g., travel for a sports team or an interview) then you need to let me know as soon as possible before the exam. You may not use the cumulative final to replace a missed exam if you skipped the exam without legitimate reason for absence.

Project/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. Some portions of the project will be ungraded (e.g., Intro outline, Paper draft); these ungraded portions must be turned in on time or a reduction will be applied to the graded portion of the proposal. Further information regarding the expectations for and grading of homework/labs, and proposal components will be given in separate handouts.

Note that it is within my purview to use qualitative judgment in assigning grades for various components of the course (e.g., participation, homework assignments, exam essays, papers, etc.). If you have a question regarding any aspect of your grade, you should come see me to discuss it.

Overall grades- Breakdown:

Homeworks/Labs (total)	20%
Exams (3 @ 10% each)	30%
Final exam	15%
HSIRB Proposal	5%
Analysis of sources	5%
List of hypotheses/analyses	5%
<u>Final APA paper</u>	<u>20%</u>
Total 100%	

Unless otherwise noted, I will use the same scale for calculating grades as last semester:

<u>Letter</u>	<u>Score</u>	<u>Grade range</u>
A	100	95-100
A-	92	90-94
B+	88	87-89
B	85	83-86
B-	81	80-82
C+	78	77-79
C	75	73-76
C-	71	70-72
Etc.		

Quick notes:

- I will provide lecture notes via Blackboard (*password = methlab*). To the best of my ability I will post these in advance of lectures. If not, the notes will be up on Blackboard later that day. These handouts will give you an outline of what we will be covering but you will need to fill in additional info or expand on the outline during class. I am not responsible for giving you this info in the event that you miss class. If you miss class, you should arrange to get the notes from a classmate who was in class that day.
- Once again, you should have a calculator with a square root button, but it does not need any built-in calculations more advanced than that. Calculators that allow you to save new equations or that automatically calculate any of the statistical tests we will be learning are not permitted. **Any exam for which a prohibited calculator is used will receive a grade of 0.**
- I will be available in my office during office hours, and can be reached outside of office hours via email for questions and concerns. I am on email frequently and can usually answer simple questions very quickly. I will typically wait for you to tell me that you need help, but I will be more than happy to meet with you when you do.
- I will announce ahead of time any changes from the syllabus to readings, assignments, or projects. I may occasionally make minor changes in topic without announcement.

Late Policy: Late homeworks, labs, and ungraded portions of the proposal will not be accepted (NO exceptions). Late papers will be accepted for up to three days after the due date and, unless otherwise noted, will result in a reduction of ***1 letter grade for every calendar day late*** beginning at 5pm on the day the assignment is due. After the three-day period, a paper will not be accepted and a grade of 0 will be applied. 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.

Plagiarism and cheating:

Any work that you turn in for this class must be entirely your own work. Any sources used must be properly documented, and I will ask you not to use any direct quotes in assignments or papers. 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>. As this site clearly explains, the consequences for cheating or plagiarism can range from failing the assignment to receiving an F for the final course grade to expulsion, depending on the severity of the case and prior history of offenses. Although I am not generally opposed to your discussing assignments with fellow students from the class, all of the work you submit to me must be entirely your own, and in some cases I may ask you not to collaborate with fellow students. It is your responsibility to come see me if you have any questions about your use of sources or when/in what way it is okay to collaborate with other students in the class.

Disabilities: 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; you must come discuss the situation with me as soon as possible.

I am always happy to meet with students, but ultimately it is your responsibility to come and see me if you have any questions or concerns about class in general or about your performance in this class. Don't let things snowball; if you are having trouble, come and see me as soon as possible! I am willing to meet regularly to help you with material, but you must come and let me know you need my help. The longer you wait, the less I can help you!

Class Schedule (This schedule is tentative. I reserve the right to make announced changes, including adding readings with sufficient notice.):

Week:	Class topic/activities:	Text Chs/Assignments:
1	Jan 16 T Introduction; Discuss HSIRB proposals	
	Jan 18 R Individual project meetings	<i>Homework 1 (review of previous concepts)</i>
2	Jan 23 T Probability & SPSS review	Ch. 12
	Jan 25 R Hypothesis testing	Ch. 13
3	Jan 29 T Project preparation	<i>Homework 2 (probability/hypo testing)</i>
	Feb 1 R Single-sample study/ <i>t</i> -test	Ch. 14; <i>HSIRB Proposals due</i>
4	Feb 6 T Cont'd	<i>Lab 1 (single-sample t-test)</i>
	Feb 8 R More project prep	
5	Feb 13 T Exam 1	
	Feb 15 R Two-sample study (independent-samples)	Ch. 15; Have materials for study ready to use
6	Feb 20 T <i>Library workshop</i> ; DATA COLLECTION	<i>Lab 2 (indep-samples t-test)</i>
	Feb 22 R <i>Indep t-test cont'd</i> ; DATA COLLECTION	<i>Analysis of Sources due</i>

Week:	Class topic/activities:	Text Chs/Assignments:
7		
Feb 27 T	Two-sample study (dependent-samples); DATA COLLECTION	Ch. 16
Mar 1 R	Dep <i>t</i> -test cont'd; DATA COLLECTION	<i>Lab 3 (dep-samples t-test)</i>
8		
Mar 5-9	NO CLASSES – SPRING BREAK	
9		
Mar 13 T	One-way ANOVA	Ch. 17
Mar 15 R	Cont'd [All data collection completed]	<i>Lab 4 (one-way ANOVA); List of Hypotheses/Analyses Due</i>
10		
Mar 20 T	One-way ANOVA cont'd	<i>Expanded Intro Outline Due</i>
Mar 22 R	Exam 2	
11		
Mar 27 T	Chi-square	Ch. 21
Mar 29 R	Cont'd	<i>Lab 5 (chi-square)</i>
12		
Apr 3 T	Two-way ANOVA	Ch. 18; <i>Paper Draft Due</i>
Apr 5 R	Cont'd	<i>Lab 6 (two-way ANOVA)</i>
13		
Apr 10 T	Two-way ANOVA cont'd	
Apr 12 R	Exam 3	
14		
Apr 17 T	Work on papers/presentations	
Apr 19 R	Presentations	<i>Final APA Papers Due</i>
15		
Apr 24 T	Presentations	
Apr 26 R	Last few presentations; Final exam review	
Finals Wk	Final exam schedule TBA	

Exam 1: Chs. 12-14 & some previous concepts from last semester

Exam 2: Chs. 15-17

Exam 3: Chs. 18, 21

Final exam: Cumulative