Psychology 211B: Experimental Methods and Data Analysis I
Fall 2007

Instructor: Dr. Sarah Johnson   **When:** T/R 7:50-10:00am
Phone: 610-625-7013   **Where:** 113 PPHAC
Office: 224 PPHAC   **Website:** http://blackboard.moravian.edu/
Office Hours: Listed on Blackboard and   Pwd: methlab
     on my office door   **Email:** skjohnson@moravian.edu

Overall Course Goal: This course will foster understanding of how researchers in psychology go about studying the way individuals think, feel, act, etc. The primary focus of this first course in the 2-part series of 211-212 is on the methodology and paradigms used to explore psychology and on some of the basic statistical procedures used. Further understanding of more advanced statistical procedures will be the focus of Psyc 212, in which you will actually implement a study of your own design. The proposal of the design for your own study will be the major project of the current class.

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

1. Discuss how researchers investigate psychological processes, including knowing the important criteria of good scientific research and understanding what ethical issues are most relevant to psychological research and how such issues are handled.

2. Understand a study that is described using psychological methodology terms, and use such terms appropriately yourself to discuss research designs.

3. Evaluate a study in terms of the potential flaws in its design and suggest appropriate improvements where necessary.

4. Use basic statistical procedures appropriately in conjunction with specific designs in order to understand a set of data, apply such statistical procedures using SPSS (Statistical Package for the Social Sciences), and graph the data using either SPSS or Excel.

5. Research a topic in an area of psychology using various electronic databases, such as PsycInfo, and organize your findings into an appropriately formatted reference list.

6. Plan a study, using a design that minimizes flaws and maximizes your ability to obtain data that accurately address your research question.

7. Write a research proposal following the guidelines set forth by the American Psychological Association Publication Manual.

Required Textbooks: Any additional readings will either be handed out during class or made available via Blackboard. Readings may be added that are not currently on the class schedule.

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.

Calculator: You will need a calculator for many class meetings, so please bring it every class. At a minimum, you should have a calculator that includes a square root button, which you can purchase for as little as $5. I would recommend getting a Texas Instruments TI-30Xa or equivalent for approx. $10-15. Calculators that allow you to save new equations or that automatically calculate any of the statistical tests we will be learning are not permitted. If you aren't sure whether your calculator is appropriate, you can bring it to me for approval. **If a prohibited calculator is used for an exam, the exam will receive a grade of zero.** If you forget a calculator for an exam, it is not guaranteed that there will be one for you to borrow, in which case you may earn a lower grade for the statistics portion.

Course Evaluation:

 Class Participation: 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; 2) Your fellow students rely on your presence, for providing feedback or participating in group activities. Each student has up to **2 allowed absences** (exceptions for absences beyond the allowed 2 will be made, on a case-by-case basis, only in cases of documentable emergencies). For each absence beyond that, your final course grade will be reduced by $1/3^{rd}$ letter (e.g., B+ $\rightarrow$ B). If you have special circumstances that will result in missing more than two classes, you should see me and contact the Learning Services Office. There are some class activities that, if missed, cannot be made up. In addition, I reserve the right to *adjust* final grades based on 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 $1/3^{rd}$ 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 provide 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, adds little to class discussions/group activities or shows evidence of poor preparation, or who repeatedly fails to follow instructions for an in-class activity may receive a reduction of $1/3^{rd}$ letter grade to his/her final course grade. If a reduction of grade is warranted, a warning note will be given to the student privately prior to the end of the semester.

 1. Assignments: There will be some in-class and some take-home assignments due over the course of the semester. Take-home assignments should be typed—excluding computational problems, which may be written by hand—and proofread for clarity, spelling and grammar, etc, as appropriate. Unless otherwise noted, take-home assignments are due at the beginning of class, and in-class assignments are due before leaving class. Late assignments will ***not be accepted*** (NO exceptions). If you miss an in-class assignment due to absence and you cannot document the reason for the absence, you will not be permitted to make it up. If you miss an in-class assignment 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, there are some in-class activities/assignments that cannot be made up if missed.

2. Online quizzes: You will be expected to complete a quiz through Blackboard for every chapter of the course that we cover (excluding Ch. 1). These quizzes will be timed and will be available the day before the corresponding chapter is to be covered. Once you start the quiz, you must complete it at that time. The quizzes will be entirely multiple-choice, and you are expected to complete them without referring to the textbook or collaborating with other students. Your lowest quiz score will be dropped, and additionally you have the option of retaking one quiz immediately after we have covered the chapter in class. Re-takes must be arranged through me.

3. 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 with important terms to know for the exam and sample exam questions will be posted on Blackboard as each exam approaches. 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 to 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., because of 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.

4. Proposal: You be working throughout the semester on a proposal for a study to be implemented next semester (in Psyc 212). This project has multiple components that will build on each other, culminating in a final research proposal, with at least 8 references, written in APA style. Some portions of the project will be ungraded (e.g., "Topics of interest" list, methods 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 assignments, and proposal components will be given in separate handouts.

Late Policy: Except in *extreme* cases, late homework and ungraded proposal assignments will not be accepted. Late papers will be accepted for up to three calendar days after the due date and, unless otherwise noted, will result in a ***reduction of 1 letter grade for every day late*** beginning at 5pm on the assignment's due date. After the three-day period, the paper will not be accepted and a grade of 0 will be applied. No exceptions will be made to this rule for technical difficulties. Situations involving documentable excuses will be taken on a case-by-case basis. I will only accept work by email if you have arranged with me to do so for that assignment.

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.).

Overall grades- Breakdown:

Homework/In-class assignments (total)	15%
Online quizzes (total)	10%
Exams (3 @ 10% each)	30%
Final exam	10%
Proposed Research Outline	5%
Proposal draft	15%
Final proposal	15%
	Total 100%

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 <u>not</u> 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, except where explicitly noted that collaboration is allowed.

I will spend class time discussing ways to avoid plagiarizing, but apart from this it is <u>your responsibility</u> 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 <u>required</u> 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).

PLEASE NOTE: THERE IS A POLICY IN THE PSYCHOLOGY DEPARTMENT STATING THAT, IN ORDER TO MOVE ON TO THE SECOND COURSE IN THIS SERIES (PSYC 212), YOU MUST EARN AT LEAST A C IN THIS COURSE. BOTH 211 AND 212 ARE REQUIRED FOR PSYCHOLOGY MAJORS.

Ultimately it is <u>your responsibility</u> to come and see me if you have any questions or concerns about class in general or about your performance. I am always happy to meet with students!

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			
	Aug 28 T	Introduction and course overview	
	Aug 30 R	Scientific Methods	Ch. 1
2			
	Sept 4 T	Research Design	Ch. 2
	Sept 6 R	Reliability & Validity	Ch. 3
3			
	Sept 11 T	Design issues & Ethics (experiments)	Ch. 4; **Topics of interest in Ψ due**
	Sept 13 R	Cont'd	
4			
	Sept 18 T	Design issues & Ethics (descriptive)	Ch. 5; *Design issues assignment*
	Sept 20 R	***Library workshop***	
5			
	Sept 25 T	Cont'd	**Literature research plan due**
	Sept 27 R	Design critique lab	[assigned articles, TBA]; *Design critique assignment (in-class)*
6			
	Oct 2 T	APA lab	*APA lab assignment (in-class)*
	Oct 4 R	**Exam 1**	
7			
	Oct 9 T	**No class [Fall break]**	
	Oct 11 R	Frequency distributions & Percentiles; Central tendency	Chs. 6-7
8			
	Oct 16 T	Central tendency cont'd	**Proposed Research Outline due**
	Oct 18 R	Variability	Ch. 8; *Central tendency assignment*
9			
	Oct 23 T	In-class proposal design critiques	
	Oct 25 R	Variability cont'd	*Variability assignment* (due Friday)
10			
	Oct 30 T	Catch-up/review day; In-class peer review of methods	**Proposal methods draft due in-class**
	Nov 1 R	**Exam 2**	
11			
	Nov 6 T	z-scores	Ch. 9; **Proposal draft w/commentary due**
	Nov 8 R	Correlation	Ch. 10; *z-score assignment*

Week:	Class topic/activities:	Text Chs/Assignments:
12		
Nov 13 T	Cont'd	
Nov 15 R	Regression	Ch. 11; *Correlation assignment*
13		
Nov 20 T	Regression cont'd	
Nov 22 R	**No class [Thanksgiving]**	
14		
Nov 27 T	Catch-up/review day	*Regression assignment*
Nov 29 R	**Exam 3**	
15		
Dec 4 T	Probability	Ch. 12
Dec 6 R	Probability cont'd/Final exam review	**Proposal final draft due**
Finals Wk	Final exam schedule TBA	

Exam 1: Chs. 1-5
Exam 2: Chs. 6-8
Exam 3: Chs. 9-11
Final exam: Cumulative + Ch. 12

Unless otherwise noted, I will use the following scale for calculating grades:

Letter	Score	Grade range
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
D+	68	67-69
D	65	63-66
D-	61	60-62
F	0	0-59