

Psychology 211C

Experimental Methods & Data Analysis I

Fall 2010

Instructor: Dr. Lori Toedter
Office: PPHAC Room 227

e-mail: meljt01@moravian.edu
Office Phone: 610-861-1565

Course Overview:

This first course in a two-course sequence is designed to introduce you to the scientific method as the means through which knowledge advances in psychology. In it you will learn how to develop and test hypotheses, collect reliable data, use some basic statistical techniques, and to interpret and report the results of statistical tests. You will also begin to learn the skills and tools used by psychologists in their work, including descriptive and inferential statistics, spreadsheets and graphing, the Statistical Package for the Social Sciences (SPSS), and writing in American Psychological Association (APA) format. All students will complete a research proposal for a research project they will conduct during the second course in the sequence. This course is a writing and computing intensive course for the major in Psychology. Prerequisite: PS 120.

Course Objectives:

Students who successfully complete this course, should be able to:

1. Appreciate the strengths and weaknesses of scientific method as a way of knowing
2. Understand and apply the APA Principles of Ethical Conduct to the research process
3. Think critically about all phases of the research process in order to critique their own research and the research of others, as well as to become better consumers of information
4. Use appropriate on-line and library resources in the research process
5. Design a study to answer a question of interest to them
6. Understand the connection between research design and statistical analysis
7. Use SPSS (Statistical Package for the Social Sciences) to summarize and analyze data
8. Write a research proposal in APA format

Required texts:

[**Note:** You will use these same texts in Spring 2011 for the second part of the PS 211/212 course sequence. You *must* purchase all three texts as they will be used for open-book portions of exams and in classroom activities. Please also be sure to bring a calculator with a square root function to class each day as well.]

Dunn, D. S. *A short guide to writing about psychology* (3rd ed.) Boston, MA: Longman.
[In class schedule as: **Dunn**]

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**]

Note: The 5th edition will be out soon, so you may prefer to buy it if it's available.

Jackson, S. L. *Research methods and statistics: a critical thinking approach*. (3rd ed.) Belmont, CA: Wadsworth. [In class schedule as: **Jackson**]

Note: You should bring the Jackson & Dunn texts to class every day. I will announce in advance the days on which you will need your SPSS Manual.

Course Requirements and Grading:

Quizzes	10%
Attendance & Class Participation	10%
Homework Assignments	15%
In-Class Exams (2) (15% each)	30%
Final Exam	15%
Proposal & Proposal Writing Process	20%

[Extra Credit]

Explanation of Course Requirements and Grading

Quizzes

A 12-item open book quiz will be given and then discussed in class as we begin each chapter. A **twelve minute** time limit will be *strictly* enforced. Although the quizzes are open book, preparation is necessary: *you will not have time to read the text as you take it!* There will be no opportunity to make up quizzes. There will be 8 quizzes given over the course of the semester. Any points earned over 80 points (out of the 96 points possible) will be applied as extra credit to test grades.

Attendance & Class Participation

You are expected to attend all classes, and to be prepared to participate in the day's activities and discussions. You will be asked to sign in at the beginning of each class. 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, below). You will also need to arrange to get notes and handouts. The attendance grade will be reduced by 4 points for an unexcused absence, 2 points with a valid excuse (doctor's note, note from other professor or from Student Services). If special circumstances arise that will cause you to miss more than one class, you should contact the Learning Services Office.

Homework Assignments

Due dates for most assignments appear in the class schedule. Some homework assignments (mostly those which are computational and/or from the Jackson text) will be announced on a day-by-day basis and then posted on Blackboard. Late assignments will be accepted up to 2 days late, at a penalty of 2 points per day. Assignments will include such things as the structured article critique, problems assigned from the end of the chapters in Dunn & Jackson, and SPSS analyses. Answers to critical thinking exercises can be found at the end of each chapter in the Jackson text, and answers to all odd-numbered homework problems can be found in the back of the book. You should get in the habit of testing yourself by completing these problems even though 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.

In-Class Exams & Final Exam

There will be two **in-class** exams over the course of the semester, as noted in the class schedule below. Since this course is a prerequisite for PSYC 212 (which you will all take in the Spring), there will be a cumulative final exam during the final exam period. In-class 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 **cumulative final** will serve as a makeup for any exam missed during the semester. In that case, the cumulative final grade will count twice: once as the cumulative final (15% of course grade) and once as the missed exam grade.

Proposal & Proposal Writing Process

You will be keeping a Proposal Process Journal to assist you in writing the best proposal possible. There will be a series of assignments leading up to the point at which you submit the final draft of your proposal for an empirical study which you will conduct next semester in PSYC 212. All of these assignments (including all proposal drafts) will be included in your journal, and contribute to the "Proposal & Proposal Writing Process"

portion of your final course grade. You will receive additional, specific information on the creation of your journal and the assignments to be included during class on our first Writing Workshop day.

Extra Credit

Students may earn up to 4 points extra credit by participating in research projects through the department's subject pool. One point may be earned for each ½ hour of participation. Your reactions to the studies in which you participate should be included in your Proposal Process Journal.

Calculating your Grade:

A grade of C (72.6) or better in this course is required in order to declare a psychology major (yes, we do check).

To calculate your final grade, I first add any extra credit points earned and then weight each grade according to the percentages given above. For example, if an exam is worth 15% and you score an 80 on it, I multiply (.15) (80) for a point total of 12. Adding these points together for all the grading components listed above will give you your final grade for the course (out of 100 points). These points are then converted to a letter grade as follows:

92.6-100	=	A
89.6 – 92.5	=	A-
86.6– 89.5	=	B+
82.6 – 86.5	=	B
79.6 – 82.5	=	B-
76.6 – 79.5	=	C+
72.6 – 76.5	=	C
69.6 – 72.5	=	C-
66.6 – 69.5	=	D+
62.6 – 66.5	=	D
59.6 – 62.5	=	D-
less than 59.6	=	F

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

Expectations for the Course

Preparation and Commitment

Since this is a rigorous course that serves as a prerequisite for upper level courses in psychology, you must be willing to give preparation for it a high priority. Your studying will not be successful if done in 10 or 15 minute segments, late at night or at the last minute. We recommend *at least* five study sessions per week of *at least* one hour in length, although what is needed may vary from individual to individual. This time is in addition to the time required to complete specific assignments.

All of you have had a basic writing course (WRIT 100 or equivalent). Therefore, I expect strong writing to be displayed in your assignments and projects. Spelling, grammar, and structure are always relevant, and will therefore be an important factor in my grading of your work. *Use the Writing Center* to develop added confidence in your writing skills! Please note that the Writing Center is located in a building that is not accessible to persons with mobility impairments. If you need the services of the Writing Center, please call 610-861-1392.

In the spirit of fairness to ALL students I must be consistent with the policies laid out in this syllabus and ask you to be familiar with and respectful of them.

Academic Integrity

Academic integrity is a core value of the college and is expected. Cheating and plagiarism will not be tolerated. It is my contractual agreement with the college to report all *suspected* cases of plagiarism and cheating. Plagiarism is the misrepresentation of someone else's work as your own. This includes but is not limited to transcribing sentences or paragraphs belonging to another author directly from another written source giving the impression that they are your own words, quoting directly from a published work without giving the author credit (i.e. proper citation), using or "borrowing" another student's work, or buying a paper from a professional service. Students must keep all notes and rough drafts until given a grade for the course. See your Student Handbook for a more complete description. Please see me for any needed clarification.

Other Important Information

Access to Files/Computing Resources

We will work with SPSS files that will be saved for class use on the **p drive** in the Psychology folder in the file named "PS211Toedter". The p drive cannot be accessed from off campus.

Contacting Me

Office Hours: TBA

My office hours will be posted on Blackboard (including any necessary changes for a given week).

(email: meljt01@moravian.edu) (Telephone 610-861-1565)

e-mail is the preferred means of contacting me. Phone messages will be returned via e-mail, except for special circumstances. If you are using an e-mail address other than your college address, please change this contact information on Blackboard.

Learning Services

Students with learning disabilities who need special accommodations for this course should contact Mr. Joe Kempfer in Learning Services at 1307 Main Street (ext. 1510). Accommodations cannot be provided until authorization is received from Learning Services based upon proper documentation of the conditions and needed accommodations. Accommodations must be authorized on a class by class basis every term. [This is required by the ADA and is not done to annoy you!]

The Writing Center is located in a building that is not accessible to persons with mobility impairments. If you need the services of the Writing Center, please call 610-861-1392.

I will be working with Learning Services to arrange tutoring services for this class. Please see me if you believe you are in need of such assistance.

Students Please Note: The class schedule that follows is subject to change at my discretion in order to make the class flow more smoothly. Except for extreme circumstances. I will not change the due dates for major assignments.

Class Schedule

<u>Date</u>	<u>Topic</u>	<u>Readings & Major Assignments</u>
(1) Mon 8/30	Introduction to the Course	None
(2) Wed 9/1	Ways of Knowing	Jackson, Ch 1 SPSS Lessons 1,2,5,6
<i>Labor Day --- No Classes</i>		
(3) Wed 9/8	The Research Process	<i>Quiz, Jackson Ch 1</i> DUE: Long Topic List
(4) Mon 9/13	Information Literacy	Dunn, Ch 2 Jackson, Ch 2
(5) Wed 9/15	Research Ethics	<i>Quiz, Jackson Ch 2</i>
(6) Mon 9/20	Writing Workshop I <i>Bring Materials for Journal</i>	DUE: Best 3 Topics Dunn, Ch 1 & [Do #1,3,5 & 6 at end of chapter]
(7) Wed 9/22	Measuring Variables I	Jackson, Ch 3 <i>Quiz, Jackson Ch 3</i>
(8) Mon 9/27	Measuring Variables II	Dunn, Ch 3 & [Do #1; #3 for one of your articles]
(9) Wed, 9/29	Measuring Variables III	DUE: Annotated Bibliography
(10) Mon 10/4	Research Design I	Prepare for Exam
(11) Wed 10/6	Exam #1	Prepare for Exam
<i>Fall Break ---Enjoy!</i>		
(12) Wed 10/13	Writing Workshop II	DUE: Structured article critique outline
(13) Mon 10/18	Research Design II	Jackson, Ch 8 <i>Quiz, Jackson Ch 8</i>

<u>Date</u>	<u>Topic</u>	<u>Readings & Major Assignments</u>
(14) Wed 10/20	Research Design III	DUE: Research Proposal Outline
(15) Mon 10/25	Observational Methods	DUE: Structured Critique (Draft)
(16) Wed 10/27	Survey Construction	Jackson, Ch 4 Quiz, Jackson Ch 4
(17) Mon 11/1	Frequency Distributions	Dunn, Ch 4 & [Do # 1,2 & 3] SPSS, Lesson 13
(18) Wed 11/3	Graphing	Jackson, Ch 5, pp. 104-113 Quiz, Jackson Ch 5, Part 1 SPSS, Lessons 16A & 17A Dunn, Ch 5 & [Do #1, & #9 for your Introduction]
(19) Mon 11/8	Measures of Central Tendency	DUE: Structured Critique Narrative (Final) SPSS, Lesson 20
(20) Wed 11/10	Writing Workshop III	DUE: Draft of Intro. to Proposal
(21) Mon 11/15	Exam #2	Prepare for Exam
(22) Wed 11/17	Variability & Skew	Jackson, Ch 5, pp. 114-133 Quiz, Jackson Ch 5, Part 2
(23) Mon 11/22	z scores	DUE: Proposal Draft 1
	Thanksgiving Break ---Enjoy!	
(24) Mon 11/29	z scores	Jackson, Ch 6
(25) Wed 12/1	Correlation	Quiz, Jackson Ch 6

<u>Date</u>	<u>Topic</u>	<u>Readings & Major Assignments</u>
(26) Mon 12/6	Correlation	SPSS, Lesson 31
(27) Wed 12/8	Correlation & Regression	DUE: Proposal Draft 2
Mon 12/13 Final Exam: 1:30pm Proposal draft 3 DUE if needed		