Psychology 211

Experimental Methods and Data Analysis I

Spring 2011

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Class meets on M and W 7:30am - 8:40am – in Hurd 113

Office hours: M 10:15-11:15am; W 2-3pm; F 8:30-9am; 10-11:30am; When necessary appointments for other times may be scheduled.

Scientific method as the means through which knowledge advances in the field of psychology. Developing and researching hypotheses, collecting data, testing hypotheses using appropriate statistical techniques, interpreting and reporting statistical results. Research methodology, descriptive statistics, and inferential statistics, as well as computer software Statistical Packages for the Social Sciences to analyze psychological data. Students will be responsible for researching a topic and creating a research proposal. Writing intensive. *Prerequisite:* Psychology 120.

Important Course Information: The Department of Psychology implemented a policy which states that students enrolled in Psych 211 ***must earn a grade of C or higher*** in order to enroll in the companion course, Psych 212 (Experimental Methods and Data Analysis II). There are no exceptions to this policy. Both Psych 211 and 212 are required in order for a student to major in psychology at Moravian College.

Important Suggestion: Read and work ahead. Always read a chapter in advance of the day we discuss it in class. If you do, issues you are uncertain about will likely become clear. If not, you can ask specific questions so I can guide you to understanding the concept. If you do not read ahead and work on assigned problems, you risk becoming lost very quickly while the rest of the class moves ahead. *Read and work ahead.*

Required Books:

Dunn, D. S. (2010). *The Practical Researcher: A Student Guide to Conducting Psychological Research* (2nd ed.). Malden, MA: Wiley-Blackwell.

Dunn, D. S. (2011). *A Short Guide to Writing about Psychology* (3rd ed.). New York: Pearson Longman.

Nolan, S. A., & Heinzen, T. E. (2011). *Essentials of Statistics for the Behavioral Sciences.* New York: Worth.

Course Matters

Attendance. This class requires constant attendance. Participation, too, matters. I expect that you will attend each and every class, arrive on time, and that you will come prepared to discuss and to ask questions about the course material. I will be passing out a sign-in sheet at the start of every class. Too many missed classes will lower your final grade.

Cell phones and laptop etiquette. When you are in class, you are in a no texting zone. Please turn off all cell phones and pagers when you enter the classroom. Having cell phones and pagers go off during class is disruptive both to me and to your fellow students. If there is an *emergency situation* where you need to be reachable during class, place your cell phone or pager in vibrate mode. If it goes off, please leave the class to take the call. *Please only respond to cell phones or pagers if there is a true emergency*. If you use laptops for note-taking, this is fine as long as that is truly what you are doing with your laptop. Please do not check email, check Facebook, write letters, or surf the web—it is quite easy for me to tell when students are using laptops for purposes other than note-taking.

Obtain a calculator. Please purchase an inexpensive ($5 - $10), basic calculator for this class, one that has some memory functions and a square root key. Do **not** purchase a sophisticated, statistical or "scientific" calculator for this class. You will be simple, straightforward performing hand calculations using the calculator. Programmed analyses will be performed as we learn to use SPSS (Statistical Package for the Social Sciences).

Course assignments. There will be some in-class and some take-home assignments due over the term. All take-home assignments—except for calculations—should be typed, proofread for clarity and grammar, spell-checked, etc. Unless otherwise noted, all take-home assignments will be due at the start of class. Late assignments will not be accepted (there are no exceptions to this rule—please don't ask). If you miss an in-class assignment due to an unexcused absence, you cannot make it up. Excused absences will be considered on a case-by-case basis.

Late policy for course work. Late homework assignments and ungraded portions of the proposal will *not* be accepted. There are no exceptions to this rule. Late papers (i.e., graded portions of the proposal or the proposal itself) will be accepted for no more than three days after the due date. The penalty for a late paper is 1 complete letter grade reduction for each day a paper is late (the first drop in a grade occurs once I collect the assignment, usually at the start of class). After the three days are over, a grade of "0"will be given for the missed assignments. No exceptions will be made to this rule, even in the case of legitimate and documented excuses, technical difficulties (e.g., computer or car), weather issues, and personal problems. *You should be working on your project on an on-going basis so that you will always have something to submit.* You may *not* email an assignment to me unless we discuss it and I inform you that I will accept it. I want hard

copies of all work to be submitted by you in class. For example, I will not accept an assignment that is emailed to me while the class is meeting.

Plagiarism and cheating. Your work must be your own. The College has a detailed plagiarism policy. I assume you are already familiar with it. I am happy to discuss it with you if you have questions. I will follow it to the letter. Please visit: http://www.moravian.edu/studentlife/handbook/academic/academic2.html to view the policy.

Exams. There will be two in-class exams and a take-home final exam. The exams will contain short answer questions, essay questions, and problems. Exams can contain material from our texts (including material *not* discussed in class), lecture, and class discussion.

Make-up exams. **There are no make-up exams**. If you miss an exam for an extraordinary and documented reason (e.g., serious illness) *and* I know in advance *and* I accept the reason, I will assign you a grade based on the average of the other exam and the final (e.g., 75 + 83 = 158/2 = 79). If your reason is not an adequate one, then you will receive a score of zero (0) for the missed exam.

Research proposal. Across the semester, you will be working on a research proposal—a design for an experiment or other empirical investigation—for a project that you will conduct from start to finish next semester (fall 2011). The proposal has multiple parts, each building upon the other. Your research proposal, which is due toward this semester's end and must be written in APA-style, will have a title page, an abstract page, an introduction, a Method section, a potential Results section, a References section (containing *at least* 8 references), and an Author Notes page (refer to Dunn [2011], especially chapter 5). Some parts of the proposal will be submitted in advance and will be ungraded (you will, however, receive comments); other parts will be graded. If you fail to submit a given part of the proposal when it is due, your final grade will be affected. We will also share rough drafts of proposal materials with one another in class.

Help with course material. Doing well in this course is not difficult if you are diligent, organized, and if you spend a reasonable amount of time outside of class reading, doing homework, etc. I will be delighted to discuss the course material with you, but you must seek me out during my office hours or schedule an appointment. It is your responsibility to let me know if you are having difficulty with the material. As much as I would like to, I cannot read your mind—you must ask for help or let me know how I can help you. *Don't wait.*

Grading. Your class grade will be based on the following items and percentage weights:

Exam 1	15%
Exam 2	15%
Final Exam	15%
Possible Research Topics	5%

Outline Draft w/APA style References	5%
Introduction Draft and Submitted Draft	5%
Method Draft and Submitted Draft	5%
Other miscellaneous homework & lab work	5%
Research Proposal	20%
Attendance & Participation	10%

I will use the following grading scale for course work:

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

Note about the syllabus. Readings should be completed before class on the dates noted herein. I reserve the right to alter the syllabus should the need arise.

Homework Assignments in Nolan & Heinzen Text

Each chapter in the Nolan & Heinzen text ends with (1) *Clarifying the Concepts,* (2) *Calculating the Statistics*, and (3) *Applying the Concepts* problems. I strongly urge you to read and do the end of chapter questions and problems when you finish reading a chapter and when you review for a given exam. *Note well: Questions and problems on exams will be very, very similar to those found in the above 1 – 3 types of problems.*

I have assigned particular problems below for you to do as you finish each chapter in the Nolan & Heinzen text. You will not master the concepts unless you do these homework problems. Will I be collecting homework regularly? No. I will collect homework problems at random in class—if you have done them and can submit them that day, you will earn extra points tacked on to your final course grade. If you have nothing to submit that day, then you will receive no points. *You may not submit homework after I collect it at random.* Please don't ask to do so.

I am happy to discuss homework problems in class or during my office hours. Let me be very clear: Doing homework (answers to the questions appear at the back of the text) is the single best way to learn the material. If you do not practice using the formulas, then you will not learn the underlying concepts. You need to have both skills in order to complete the problems given during in-class exams.

Assigned Homework:

Chapter 1 – 1.1 – 1.12; 1.14, 1.16, 1.24, 1.29, 1.31

Chapter 2 – 2.11, 2.12, 2.13, 2.15, 2.16, 2.24. 2.25, 2.26, 2.27

Chapter 3 – No specific problems—review all three categories here to make sure you understand the chapter's concepts.

Chapter 4 – 4.1, 4.5, 4.6, 4.7, 4.11, 4.12, 4.13, 4.14, 4.15, 4.18, 4.36

Chapter 5 – 5.1. 5.2, 5.3, 5.5

Chapter 6 – 6.2, 6.5, 6.6, 6.7, 6.8, 6.9, 6.14, 6.15, 6.16, 6.17, 6.18, 6.25, 6.27, 6.28

D = Dunn *The Practical Researcher*
DW = Dunn *Short Guide to Writing About Psychology*
NH = *Nolan & Heinzen Statistics*
*** = Homework Problems Assigned (see page 5 of this syllabus) – Homework will be collected at random (if at all) – thus, you should have the problems completed on or after the date noted on the syllabus.

I anticipate following this schedule, however, I reserve the right to change it if the need arises (e.g., inclement weather).

Class Schedule for Spring 2011

M Jan 17	Organizational Meeting	
W Jan 19	The Scientific Method	D Ch. 1
M Jan 24	The Scientific Method con't	---
W Jan 26	Writing in Psychology	DW Ch. 1
M Jan 31	Thinking about Research Topics	D Ch. 2
W Feb 2	Searching and Reading the Literature *bring list of 3 possible topics	D Ch. 3; DW Ch. 2
M Feb 7	Library Research Workshop	
W Feb 9	Introduction: Statistics & Research Design Refining Research Topics	NH Ch. 1***
M Feb 14	Ethics in Psychological Research	D Ch. 5
W Feb 16	Ethics continued	---
M Feb 21	***EXAM 1***	
W Feb 23	Reading & Critiquing Research Getting Started Writing *bring an outline w/APA style references to class	DW Ch. 3 & 4 D Ch. 4
M Feb 28	Frequency Distributions	NH Ch. 2***
W Mar 2	Frequency Distributions	---
F Mar 4	***Midterm Point of the Semester***	

Sa Mar 5 – Sun Mar 13 ***Spring Break***

M Mar 14	Visual Displays of Data	NH Ch. 3
W Mar 16	Central Tendency	NH Ch. 4*** pp.71-81
M Mar 21	Variability	NH Ch. 4 *** pp. 81-88
W Mar 23	DRAFT Proposal Writing Workshop *bring a draft of your introduction to class	DW Ch. 5, 7
M Mar 28	Catch up & Review for Exam 2	
W Mar 30	***EXAM 2***	
F Apr 1	Last Day for Course Withdrawls with a ***W***	
M Apr 4	Sampling and Probability	NH Ch. 5***
W Apr 6	DRAFT Proposal Writing Workshop *bring a rough draft of your Method to class ***Submit introduction***	DW Ch 5, 7
M Apr 11	Experimental Research	D Ch. 6
W Apr 13	Experimental Research con't ***Submit Method***	---
M Apr 18	z-Scores	NH Ch. 6***
W Apr 20	z-Scores con't & Proposal Discussion	---

Th Apr 21 - M Apr 25 ***Easter Recess***

W Apr 27	***Final Proposal Draft Due*** Catch Up Day and Looking Ahead to PS 212 Take Home Final Exam Available***	

M May 2 - Sa May 7 *Final Exam Period*

*** Our final exam will be due on Thursday, May 5th, at 1:30pm