

PS 212

Experimental Methods & Data Analysis II

Spring, 2014

Instructor: Stacey B. Zaremba

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Office: Room 229 PPHAC

Class time: T & TH 2:35 – 3:45

Office Hours:

Monday, Tuesday, and Thursday 1:00 – 2:30

If none of these times are convenient for you, other times may be arranged. Please feel free to call or email me to set up an appointment. If you are having trouble with your project or with the statistical components of this course, come see me as soon as possible. I will be happy to meet with you to answer your questions and discuss your concerns.

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 the 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 the term 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 improvement where necessary.
3. Use basic and advanced statistical procedures appropriately in conjunction with specific designs, apply such statistical procedures using SPSS, and graph the data using either SPSS or Excel.
4. Research a topic in an area of psychology using various electronic databases, such as PsychInfo, organize your findings into 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

1.Exams:

There will be three exams over the course of the semester, as noted in the class schedule below. The exams will 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.

The first two 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 and will be administered during Finals Week.

Note: Make-up exams will not be administered. If you miss an exam the final exam will count twice – once for the final exam and a second time for the missed exam grade.

2.HW and Lab Assignments:

Assignments will be announced on a day-by-day basis. Assignments may include: in-class and out-of-class SPSS labs, short reaction papers, and problem assigned from the end of the chapters in your textbooks. You should get in the habit of testing yourself by completing the problems in the N&H book even if I do not assign them. There is no way to know if you understand the material well enough unless you test yourself.

3. Attendance and Class Participation

Your attentive presence and prepared participation in the classroom are important both for a successful course and for your successful completion of the course. It is assumed and expected that you will attend class, complete the readings in advance of class. If you miss a class you are still responsible for submitting your assignments on the day that they are due!

Excessive absences will result in a substantial decrease in your class participation grade. The classwork in this class is layered and missing one day can put you behind for future meetings and assignments. In addition, your fellow classmates 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 for support.

4. 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). You will receive a handout that provides information regarding the timeline and due dates of the many assignments associated with this project.

APA Format: Information regarding APA format can be found in Chapter 4 of Dunn Practical Researcher book and Chapters 4,5,7, & 9 of Dunn Writing book. Please consult these chapters as you work on the final draft of your APA paper.

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, and NO exceptions will be made for technical difficulties. In addition, I will only accept work turned in via email if you have arranged with me to do so in advance.

Evaluation:

Exams	40 %
APA Paper Final Paper	20 %
HSIRB proposal, Methods redraft, Informed Consent, Results Draft, HO and Analysis, Script, & Presentation	15 %
HW and Lab Assignments	15 %
Attendance and Participation	<u>10 %</u>
	100 %

Policy on Plagiarism:

Evidence of plagiarism will be dealt with in accordance with the College policy on academic honesty.

Disability Statements:

Students who wish to request accommodations in this class for a disability should contact the Academic Support Center located on the first floor of Monocacy Hall (extension 1401). Accommodations cannot be provided until authorization is received from the Academic Support Center.

A Request Regarding General Classroom Etiquette:

Now that we are in the age of cell phones, pagers, and laptops, I have found that the use of these pieces of technology can be both positive and negative. They certainly make life easier, but they are not necessarily helpful in the classroom. I would ask that all cell phones and pagers be turned off or placed in a silent mode prior to the start of class. Having cell phones and pagers go off during class is disruptive both to me and my train of thought (which can be easily derailed at times!) as well as to your fellow students. If there is an emergency situation where you need to be reachable during class, place your cell phones or pagers in vibrate mode. If they go 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—just so you know, it is quite easy to tell when students are using laptops for purposes other than note-taking. **If you use your cell phone in class it will lower your class participation grade by ½ a letter grade!**

Required Course Reading:

Note: You will use the same texts this semester that you used last semester. You should bring the appropriate book to class each day.

Please also be sure to bring a calculator with a square root function to class each day as well. **You may not use your cell phone as your calculator!**

Dunn, D.S. (2011). *A Short Guide to Writing About Psychology*. (3rd ed). New York:NY. Person Longman. **(DSD-W)**

Dunn, D.S. (2013). *The Practical Researcher: A Student Guide to Conducting Psychological Research* (3rd ed.). Hoboken, NJ: Wiley. **(DSD-PR)**

Nolan, S, A., & Heinzen, T.E. (2014). *Essentials of Statistics for the Behavioral Sciences* (2nd ed). New York, NY:Worth. **(N&H)**

Course Outline

(Schedule subject to
change due to
weather)

Week 1 (1/14 & 1/16)

Welcome Back! Where were we?

Organizational meeting/Syllabus review (1/14)

Distribute Papers from PS 211

Sign-Up for individual project meetings

Individual Project Meetings: Review your final paper from PS 211 prior to our meeting – be prepared to provide mw with a status report (1/16)

Week 2 (1/21 & 1/23)

HSIRB Proposals and formalizing your methods sections and material (1/21)

(HSIRB forms will be distributed in class and can be found in the HSIRB folder on the Public (p) drive on the College's Intranet)

Readings Dunn PR Chapter 5

Hypothesis Testing and Developing Informed Consent Forms (1/23)

Readings N & H Chapter 7 and Dunn Chapter 5 continued

Week 3 (1/28 & 1/30)

Hypothesis Testing with Z-tests (1/28)

Readings N & H Chapter 7

Hypothesis Testing with Single Sample T-tests (1/30)

Readings N & H Chapter 9

Week 4 (2/4 & 2/6)

Paired Sample T-tests (2/4)

Readings N & H Chapter 9 continued

Independent Sample T – test (2/6)

Readings N & H Chapter 10

Completed HSIRB proposals Due (2/6)

Week 5 (2/11 & 2/13)

T – tests: Independent Groups and Correlated Groups (2/11 & 2/13))

Readings N & H Chapter 10 continued

Week 6 (2/18 & 2/20)

Getting your project aligned (2/18)

*Procedural Issues: (Measures, design, scripts, etc) and how they translate
Into result section issues (data, formatting, coding, statistical tests)*

Participant Script Due (2/18)

Exam I (2/20)

Week 7 (2/25 & 2/27)

Data Collection Begins!

Correlations (2/25 & 2/27)

Reading N & H Chapter 13

Week 8 (3/4 & 3/6)

Recess – No Class – Enjoy and Stay Safe

Week 9 (3/11 & 3/13)

Planning your Analysis (3/11)

Statistical Ho Due 3/11

Readings Dunn PR Chapter 9 & Dunn W Chapter 8

No Class – Continue to work on your projects. I will be on attending The Annual Meeting of the Eastern Psychological Association. (3/13)

Week 10 (3/18 & 3/20)

Individual Meetings: Planning your Analysis and Data Display (3/18 & 3/20)

Optional review of Introductions – (3/18)

Week 11 (3/25 & 3/27)

Writing Up Results (3/25)

Readings Dunn W Chapter 6 & Dunn PR Chapter 8

One-Way ANOVA – (3/27)

Readings N & H Chapter 11

Week 12 (4/1 & 4/3)

Draft of revised Methods & Results Due (4/1)

Bring three copies to class for peer review!

One-Way and Two-Way ANOVA's – (4/1 & 4/3)

Readings N & H Chapter 11 & 12

Week 13 (4/8 & 4/10)

Two-Way ANOVA's (4/8)

Readings N & H Chapter 12

Nonparametric Tests (4/10)

Readings N & H Chapter 15

Week 14 (4/15 & 4/17)

Advice on presenting your work - Passover – No class (4/15)

Readings Dunn W Chapter 10 & Dunn PR Chapter 9

Final APA paper Due (4/17)

Week 15 (4/22 & 4/24)

Final Presentations I (4/22)

Final Presentations II, An Attempt at Closure and Evaluations (4/24)

Finals Week

Friday May 2, 1:30

