# PSYCH 211: Experimental Methods and Data Analysis I \* Fall, 2014

INSTRUCTOR: Dr. Robert Brill Office Phone #: (610) 861-1561
Office Location: PPHAC Room 225 FAX #: (610) 625-7879

E-Mail: brillr@moravian.edu

**Office Hours:** M & W 2:30 – 3:30pm and T & TH 11:30 – 12:30

(or by appointment)

#### **Course Overview:**

This course focuses on scientific methodology as the means by which knowledge within the field of psychology (and others) is advanced. Students will learn about, and develop skills in employing principles of research methodology and statistical analyses, the main tools of the research psychologist. The course will be highlighted by an intensive individual independent research proposal, which will become an actual research project complete with data analysis and presentation in the Spring semester. The course is also writing intensive. We will explore and use several styles and functions of writing with major emphasis on scientific writing and American Psychological Association (APA) format.

# **Course Objectives:**

- 1. To provide you with a thorough **knowledge base** in the scientific process, basic research methodology and basic statistical tools used to summarize and correlate data, and the ability to use this knowledge to **make good decisions** regarding the choice and use of methodological and statistical principles.
- 2. To help you to understand the important <u>connection between research design and statistical</u> **analysis**, and the foundation they provide for real-world applications.
- 3. To appreciate the **critical**, **but limited role**, **of science** in helping us to understand our world.
- 4. To stimulate and challenge you to **think critically** and independently about the course material, and about information presented in studies and the media so that you will be educated consumers of knowledge. Specifically, to enable you to critique research studies.
- 5. To improve your <u>communication skills</u> (written, verbal, & listening) through various opportunities provided during the course; particularly, you should develop greater skills in writing research reports in a "scientific" style, and in compliance with APA format.
- 6. To master the basics of **SPSS** (Statistical Package for Social Scientists) and **APA style writing**.
- 7. To foster the <u>abilities</u> to critique a piece of research, create a well developed research project independently, to write a proposal in APA format.

<sup>\*</sup>NOTE: Course schedule and other aspects of syllabus are subject to change.

The following outcome competencies further specify expectations of student abilities:

# **Required Competencies for Students Completing PS: 211**

### Competency Area 1: Research Methodology

At the conclusion of the course, the student should be able to. . . .

- Understand scientific method as distinct from other ways of knowing
- Identify from an abstract or short description of an empirical study: the relevant theory, hypotheses, independent & dependent variables, operational definitions of variables, study design, potential confounding variables
- Critique a study with respect to its reliability & validity, and suggest potential improvements to a flawed study design
- Distinguish between a population and sample of scores
- Describe the ways of obtaining a random sample & merits of each type of sample
- From the description of a study, identify ethical concerns & suggest potential solutions
- Describe the key points that must be included in the Informed Consent for a study

# Competency Area 2: Statistical Concepts

At the conclusion of the course, the student should be able to. . . .

- Identify the scale of measurement used to measure a variable
- Identify and compute the appropriate descriptive statistics for a distribution of scores
- Explain the common terms in a statistical formula
- Understand the distinction between theoretical and computational formulas
- Explain the concept of the standard normal distribution
- Compute & interpret z-scores and understand their use in psychology
- Compute & interpret the strength & direction of a correlation coefficient
- Explain, give an example, & sketch the scattergram for each of the following: positive correlation, negative correlation, nonlinear correlation, no correlation

### Competency Area 3: Computer Applications

At the conclusion of the course, the student should be able to. . . .

- Code and enter a multiple variable data set using SPSS
- Compute and interpret SPSS output for Frequencies and Correlation
- Use Microsoft Word to produce APA format documents

# Competency Area 4: Writing & APA Format

At the conclusion of the course, the student should be able to. . . .

- Identify & correct errors in APA format for references & citations within the text
- Identify & correct common errors highlighted in the APA Manual in the format, structure, grammar and style of manuscripts

# Required texts (Note: THESE TEXTS WILL BE USED IN PS212 ALSO):

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

[REFERENCE: use as needed, bring to class when asked]

Cronk, B. (2014). How to use SPSS (7th ed.). Glendale, CA: Pyrczak Publishing [referred to as SPSS]

Dunn, D. S. (2011). *A short guide to writing about psychology* (3<sup>rd</sup> ed.). Boston, MA: Longman / Pearson Publishers. [referred to in syllabus as DD]

Jackson, S. J. (2012). *Research methods and statistics: A critical thinking approach* (4th ed.). Belmont, CA: Wadsworth Cengage Learning Publishers. [referred to in syllabus as RMS]

# Other requirements:

- 1) Accessibility to your computer account file, e-mail, and registration in Blackboard for PS211.
- 2) Three FOLDERS / BINDERS with pockets (NOT manila folders):
- A) **RESEARCH WRITING FOLDER** in which to organize: Research project notes, outlines, drafts, & final version of your individual proposal.
- B) **RESEARCH MATERIALS FOLDER** HSIRB proposal, materials for your study (e.g., surveys, measures, stimuli, etc.), articles used (unless storing articles electronically).
- C) **WORK & ASSIGNMENTS** APA mini-lab and other entries described below.

Folders or binders should be clearly labeled with your name and the proper boldface title for each respective folder. Improper organization and labeling will reduce the grades for these components. Keep all the above materials in the folder at all times as they will be collected periodically. I will not grade work that is not in a folder or binder with your name on it.

# **Course Graded Requirements:**

### Three EXAMS (16, 16, & 16%):

The format for tests will be multiple choice, short answer essays, application / critical thinking tasks, and computational problems. Except for the final, the tests will cover all material covered in the lectures and in the required readings for that period of time. However, you should realize that the material is cumulative by nature even if the tests are not. Therefore, DON'T fall behind! The final exam will be cumulative, and may have a take-home portion.

### **QUIZZES** (7%):

Quizzes are designed to provide an incentive to keep up with the material (some quizzes may be given at the beginning of class), and stay actively engaged with the in-class material (some at the end of class). All quizzes taken count toward the overall quiz grade, and no quizzes can be made up. If you miss one quiz, the points will be based on the remaining quizzes. Beyond one missed quiz, your quiz score for each subsequent quiz will be a zero. If you are late when a quiz is distributed, you may begin a quiz but it will need to be handed in when other quizzes are handed in regardless if incomplete.

### MINI LAB APA WRITE UPS (10%):

To help prepare for the research proposal, provide some early insight into APA style writing and to help provide a big picture of the scientific process in the context of independent research, early in the semester you will be asked to complete a rather smaller version of an empirical study and write up. Details regarding this lab assignment will be distributed and discussed in class.

# **RESEARCH PROPOSAL & HSIRB Proposal (20%):**

Most of you will carry out a study, an actual experiment in the spring semester as part of your PS212 requirement. Independently, each student will write a coherent, APA style research proposal based on the research project. As you will see, this research project is the foundation of the course. It occupies a central role within the course schedule. This grade will also be reduced if you miss or are poorly prepared for any individual research conference. Details regarding the research project will be distributed on a separate handout. The HSIRB PROPOSAL is a formal proposal that is required of all research studies involving human subjects conducted at Moravian College. After evaluated by me, and revised, your proposal will be reviewed by the college's HSIRB (Human Subject Institutional Review Board). Thus, there is an additional critical audience for this course. If this proposal is not done well, there may be significant problems if you are thinking of continuing in PS212.

### **ASSIGNMENTS (12%)**

Throughout the semester some written reaction assignments and conferences will be <u>required</u> in order to facilitate the learning process. Odd numbered problems have answers in the back of the book and you will also be able to use SPSS to check your manual calculations. You must clearly LABEL EACH ASSIGNMENT WITH NAME, DATE, and a BRIEF DESCRIPTION OF THE ASSIGNMENT (page numbers and problem numbers) in the top left hand corner of each assignment or problem. Without this information, assignments will only receive half credit. Many of the written reaction questions will not be graded per se (A, B, C, etc.), but they must be completed and handed in at the proper times to receive credit. I cannot accept assignments late (beyond when collected). You will be able to monitor this grade on Blackboard but note that the weightings may change as additional assignments may be incorporated depending upon the dynamics of the course.

YOU MUST PARTICIPATE IN TWO STUDIES AS A HUMAN SUBJECT (or request an alternative assignment – see extra credit policy). To avoid deductions in this grade you must complete your research participation and submit pink sheet(s) on the final class day with completed information regarding research studies in which you participated.

Other assignments (fill in blanks and multiple choice at end of chapter) are <u>recommended</u>, not required. These I will leave to your mature decision-making, but encourage you to do the work you need to learn in order to master the material. For instance, we will have class time to discuss SOME of the problems in the back of the chapters, but the chapter questions are mainly to help you to reinforce the material and bolster your studying efforts.

#### **Course Policies:**

# **CRITICAL INFORMATION NOTE:**

According to the policy of the Psychology Department, approved by the college, you MUST earn a grade of C or better in order to advance to PS212.

1) **ACTIVE LEARNING:** 

Active learning involves questioning the text and lecture material, contributing to discussion, sharing ideas and alternative perspectives. Please arrive to class on time and prepared by having read the assigned chapter(s), and completing the assignments. Class participation is expected and highly encouraged. Excessive absences will be penalized as stated in policy #4 below. Given the complex nature of statistics and research methodology, you MUST commit to actively engaging in the course material, especially during class time, by reflecting on the material, making connections, asking and answering questions to the best of your ability.

# 2) LATE ASSIGNMENTS:

Assignments ARE DUE AT THE START TIME OF THE CLASS. Assignments cannot be handed in late. Research proposals and lab project may be handed in up to three days late (Days, NOT CLASS SESSIONS) 5 points deducted from the grade each day late). When handing in an assignment late please indicate the amount of days late on the front cover along with your signature – without this late assignments will be considered incomplete. If you must miss class, drop off the assignment earlier, scan & e-mail it to me requesting a read receipt, or send it with a classmate. YOU MAY NOT E-MAIL ME LATE ASSIGNMENTS - as evidence by past experience – too much can go wrong. I encourage you not to procrastinate, and be sure to back up your work! Please, do not ask me to deviate from this policy.

### 3) MAKE-UP TESTS:

In order to avoid receiving a zero on a missed test you must provide <u>notification and verification</u>. Notify me beforehand, or as soon as possible. <u>Notification more than two days after the exam is **not** acceptable</u>. Also, if you miss a test you MUST provide appropriate documentation (Drs.' note, court order, family note upon death of a family member, etc.) at the time of the make-up exam or beforehand. I ENCOURAGE YOU TO CONTACT AND WORK WITH STUDENT SERVICES IF YOUR ABSENCE WILL BE EXTENSIVE. Due to the awkwardness, in some cases I will not ask for such documentation; however, realize **that if such documentation is not presented, the highest score that can be achieved on a test is a 60**.

### 4) ATTENDANCE:

Class attendance is expected. Class lectures and demonstrations will supplement text material. Therefore, excessive absences will necessarily impact directly on your final grade. After three missed classes, *each* class missed will reduce your *final grade* by two points. You are responsible for getting missed notes, assignments, and relevant in-class announcements in a timely manner. If you miss a day when we are meeting as research groups without a valid excuse, your *final* grade will be deducted by five points. PLEASE USE STUDENT SERVICES IF YOU MUST MISS MULTIPLE CLASSES FOR EXTENUATING CIRCUMSTANCES.

NOTE: Any student who misses their individual research conferences will lose three points from their research paper grade and their <u>final</u> grade.

### 5) 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 that I am to report all *suspected* cases of

plagiarism and cheating. Plagiarism is the intentional misrepresentation of someone else's work as your own. This includes transcribing sentences or paragraphs belonging to another author directly from another written source and suggesting 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, buying a paper from a professional service, etc. The policy of the department is that the student must keep all note cards and rough drafts until given a grade for that course!!! Again, be sure to back up your files. Evidence of plagiarism and cheating will be dealt with in accordance with the college policy on academic honesty in the *Student Handbook*. PLEASE BE SURE TO REVIEW THIS THOROUGHLY AND BOOK MARK THE CITE USING THE FOLLOWING LINK:

http://www.moravian.edu/studentLife/handbook/academic/academic2.html

# 6) EXCUSES & COMMUNICATION:

Given the nature of the course and its emphasis on mastery skills critical for upper level study in psychology, I can not pardon work or substitute with extra credit other than that which is relevant to the course and offered to all. 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. If you are thinking of asking for an exception to the policies, first ask yourself – "Am I willing to ask my classmates to support my exception to the rules of the course?"

I operate on the assumption that you are mature adults, and therefore, the decision to attend class or not is up to you. You need not e-mail me if you must miss class. Be sure to work with a classmate to get any materials you miss and feel free to make an appointment or come by during office hours to go over material <u>after</u> you get the notes from a classmate. I understand and respect life stressors you may be faced with; but keep in mind that grades reflect essential standards and cannot be adjusted based on extenuating circumstances. Valid obstacles/setbacks may understandably inhibit your performance, but they are not able to influence the course and college standards

# 7) SPECIAL ACCOMMODATIONS:

Students who wish to request accommodations in this class for a disability should contact Elaine Mara, assistant director of learning services for academic and disability support at 1307 Main Street, or by calling 610-861-1401. Accommodations cannot be provided until authorization is received from the Academic Support Center.

### 8) SUMMARY OF GRADING SYSTEM:

EXAMS 1 & 2	16% each →	32%		
FINAL EXAM		16%		
QUIZZES		7%		
MINI APA LAB REPORT		10%		
RESEARCH DRAFT, FINAL PROPOSAL				
& HSIRB PROPOSAL		20%		
ASSIGNMENTS		15%		

9) The following GRADING SCALE will be used in the course:

A: 92.4 – 100 A-: 89.7 – 92.4 B+: 86.7 - 89.65 B: 82.7 - 86.65 B-: 79.7 - 82.65 72.7 - 76.65 C-: 69.7 - 72.65 C+:76.7 - 79.65 **C**: D+: 66.7 - 69.65 D: 62.7 - 66.65 D-: 60 - 62.65 F: Below 60

Assigned letter grades can be interpreted numerically by the midpoint of the range above.

# 10) **EXTRA CREDIT:**

You will be required to participate in two research projects. This experience allows you to view the research process (a critical tool for the discipline of psychology) first-hand in various experimental contexts. All the research studies will have been reviewed and approved by a Human Subjects Institutional Review Board (HSIRB) Committee; however, if you have objections to participating in research, you may arrange to complete an alternative, written assignment, which will involve reading a psychological article. In order to do the alternative assignment, you must meet with me to arrange it by Friday, October 10th. After that point, you may still have the opportunity to complete the research requirement by participating in experiment sessions, but you will not be able to do a written assignment to fulfill this requirement. More information about research participation (e.g., how to sign up) will be provided later in the semester, when experiment opportunities start to become available. Failure to complete the required participation (or the alternative assignment) will result in a reduction of your class grade by 1/3<sup>rd</sup> letter grade (e.g., from a B to a B-). The entire required hour needs to be completed to avoid this deduction (i.e., completing ½ hour only will still result in the full deduction).

When you sign up for a research experiment, please be sure to record the time and location of the session, and all other relevant information on the pink sheet that will be provided. This information will need to be completed on the pink form and submitted toward the end of the semester. As many experiments require that students begin a task at the same time, please plan to show up on-time for your sessions. Showing up late may result in your not being able to participate in the experiment!

If you fail to attend an experiment session for which you signed up, the required hours of research participation will increase to 2 hours. If you then fail to show up a second time for a scheduled experiment session, then you will forfeit all extra credit opportunities (including extra research hours you already completed for extra credit in the course) and will face a **reduction of your class grade by** 1/3<sup>rd</sup> letter grade (e.g., from a B to a B-).

No other forms of extra credit are available for this course; please do not ask for such.

### Extra Credit via Research Participation:

Students may earn up to four hours of *ADDITIONAL* extra credit for participating in research beyond the requirements outlined above. Each <u>hour</u> of credit earned will increase your worst semester exam grade by 3 points (thus capped at 12 points).

### 11) CELL PHONES AND CALCULATOR TECHNOLOGY

All cell phones are to be turned off and put away during any class period. You may NOT use anything but basic calculator functions on the computer calculator (multiplication, division, subtraction and addition) during class exercises, and especially during exam times. While working on computers during class time, you may NOT surf the web, or use other programs / applications other than the ones we use in class. If you complete a computer based assignment early, please use the time to review the notes and the text. In other words, please use PS211 class time toward advancing your competency in PS211 outcomes.

# 12) TESTING EXPECTATIONS

Unfortunately due to increasingly creative attempts at cheating and dishonesty, please abide by the following conditions:

- a) All electronic devices, except calculators, must be turned off and kept put away in a bookbag.
- b) Unless you have a documented accommodation, once the exam begins, you may not leave the room unless your exam is completed and submitted.
- c) You can only ask questions of clarification during the exam. I am not able to discuss various interpretations and attempts at fishing.

# 13) Minimum expectations for student learning & study practices for PS211:

- a) This course should have a high priority for you in terms of your time management.
- b) You MUST have basic math skills. If you have difficulty with it, you may need to rethink taking this course right now.
- c) You must allocate a time and place to <u>study</u> for this course. Studying cannot be done in snippets.
- d) You must read before class or you will not fully comprehend the lectures. Your reading and studying goal should go beyond comprehending you must eventually be able to speak the language of research.
- e) Form study groups and meet on a regular basis in order to capitalize on different perspectives and examples.
- f) Having already had a basic writing course, I expect strong writing to be displayed in your projects. Spelling, grammar, and structure are always relevant and expected as a given part of your writing style.
- g) Commit to the policies, procedures, and spirit of the syllabus. Please consult the relevant parts of the syllabus when necessary before discussing concerns with me.

# h) USE THE APA MANUAL AND WRITING CENTER AS VALUABLE RESOURCES!

PLEASE do not seek advice for improving in the course unless you have first dedicated yourself and committed to the practices above.

# **Relevant Quotes:**

Science is the belief in the ignorance of the experts.

--Richard Feynman, 1965 recipient of the Nobel Prize in Physics

It is not what the man of science believes that distinguishes him, but how and why he believes it. His beliefs are tentative, not dogmatic. They are based on evidence, not authority.

---Bertrand Russell, *The Impact of Science on Society* 

Probability is like the cane that the blind man uses to feel his way. If he could see, he would not need the cane, and if I knew which horse was the fastest, I would not need probability theory.

---Stanislaw Lem

A prudent question is one half of wisdom.

-- Francis Bacon

There has been more information produced in the last 30 years than during the previous 5,000...A weekday edition of The New York Times contains more information than the average person was likely to come across in a lifetime during 17th-century England.

---Richard Saul Wurman, Information Anxiety

When I sat down to write a letter I didn't have time to write a short one, so I wrote a long one instead.

--Mark Twain

You must not come lightly to the blank page.

-- Stephen King, from *On Writing* 

DATES	TOPIC	READINGS	ASSIGNMENTS (Due at beginning of class –
Week one (8/25 -8/29)	THE PHILOSOPHY OF SCIENCE		otherwise it is late)
W1Session1	Introduction / Organization / Overview Epistemology: Ways of Knowing		
W1Session2	Philosophy of Science Ideas & The Scientific Method	Read & <u>Study</u> Syllabus CAREFULLY! RMS: Chpt. 1	Register for Blackboard Complete Student Overview Sheet and Math Work Sheet
W1Session3	Topics continued	DD: Chpt.1	RMS pp. 25 #1, 3, 4, 5, 6, 8
Week two (9/1 – 9/5) W2Session1	IDEAS, RESOURCES, ETHICS, MEASURING & MANIPULATING VARIABLES Variables, & Measurement RMS: Chpt. 2 & pp. 58 – 66 Survey & Scales Assignment DD: p. 12, #3		•
W2Session2	Ethics		RMS p. 75 #1 & 2 stapled to Research Questions Assignment
W2Session3	Variables & Ethics continued / Research Pr STUDENT PANEL	rojects	Ethics Handout Assignment
Week three (9/8 – 9/12)	DATA ORGANIZATION & DESCRIPTIVE STATISTICS		
W3Session1	Data Organization & Descriptive Stats	RMS: pp. 110 – 130 (NOT z scores	
W3Session2	Data Organization & Descriptive Stats continued		

W3Session3 The Structure of APA Style Manuscripts

RMS Chpt. 14 Scan RMS Chpt. 15

RMS p. 142 #1, 4, 5, 6

Week four LIBRARY RESOURCES AND APA STYLE REFERENCES

(9/15 – 9/19) W4Session1

Library Tutorial: PSYCH INFO Workshop

DD Chpt. 2 & 7; RMS: Review 31 – 37 APA Style Title Page for your research project

Report to REEVES LIBRARY

- computer nook by Reference section

W4Session2 DUE: APA Style Title Page and Reference list of seven possible abstracts for research hypothesis

General review for exam one — abstracts must be attached!

W4Session3 **EXAM ONE** 

Week five EXPERIMENTAL DESIGN – THE CRITICAL ROLE OF CONTROL

(9/22 - 9/26)

W5Session1 The Logic of the Experimental Design RMS: Chpt. 9

Collect Data for APA MiniLab Paper

W5Session2 Discuss Mini Lab Paper and Control Assignment

W5Session3 APA Mini Lab Results Control Strategy Exercise

Reading Journal Articles DD: Chpt. 3 RMS p. 244: #1 – 4, 6

9/26 – 28 FYI: CELTICFEST – Downtown Bethlehem – Enjoy!

Week six APA STYLE MANUSCRIPT WRITING -- Bring APA Manual to Class this week

(9/29-10/3) Create trick draft (DD p.62) for

W6Session1 Applying Structure and Style of APA Writing DD: Chpts. 4 & 5 for the minilab, and add some outline Review sample manuscripts (*RMS Chpt. 15; DD within chpt. 5; APA Manual*) notes for Introduction (DD p.59)

Pull your assignment up on computer when you get to class – do NOT bring a hard copy

APA Manuscript Assignment

W6Session2 Writing continued

W6Session3 Workshop – Bring a draft of APA Minilab Paper

Week seven CONFERENCES ON INDIVIDUAL RESEARCH PROJECTS

(10/6 - 10/10)

W7Session1 & 2 INDIVIDUAL CONFERENCES REGARDING INDEPENDENT RESEARCH PROJECTS (To Do List)

Complete the following assignments for Friday's class:

a) Using Chpt. 7 of DD as a guide, provide one actual APA style reference of each of the following source types using your individual research topic as your content guide:

magazine, newspaper, and an online document source, and Weblog or Video Weblog

- b) Follow steps on DD p. 62 and actually create a trick draft for your individual research study proposal manuscript.
- c) Complete TWO examples of Exercise #2 (DD, p. 149) typed (NOT written in a research notebook)

W7Session3 Class held on Introduction to z scores RMS: pp, 130 - 141 APA Mini Lab Reports and the above assignments (a, b & c) are DUE at class

Week eight STANDARDIZED SCORES (z scores)

(10/13-10/17)

W8Session1 Fall Recess - No class

W8Session2 z scores continued

W8Session3 Descriptive Methods RMS Chpt. 4 RMS p. 142 #7 & 8 & 9

Week nine DESCRIPTIVE METHODOLOGIES

(10/20-10/24)

W9Session1 Descriptive Methods continued RMS pp. 104-105 #1, 8, & 9

W9Session2 Review for Exam Two

Blackboard Reaction to film

W9Session3 **EXAM TWO** 

W11Session2

WRITING AS A PROCESS / PROGRESS ON RESEARCH PROJECTS Week ten (10/27-10/31)W10Session1 Writing as a Process Review DD Chpts. 4 & 5 Bring up on computer – AT LEAST Discuss Independent Research Project a trick draft of indep. Research proj. W10Session2 Writing & Discussion continued // SPSS Bring Research Writing and Materials Folder W10Session3 No Class – work on research project materials - Drop off Edit Tracker Summary at my office for APA Minilab Week eleven (11/3-11/7)W11Session1 Draft of Measures & Stimuli (Material portion of TO DO List) and written draft of Research Proj. Intro. only Prisoners of Silence

Independent Research Projects

W11Session3 Correlational Methods & Statistics RMS: Chpt. 6 FULL DRAFT of Indep. Research

Discussion of Prisoners of Silence Reactions

W11Session3 Correlational Methods & Statistics RMS: Chpt. 6 FULL DRAFT of Indep. Research Proposal e-mailed to me.

Week twelve (11/10-11/14)
(11/10-11/14)
W12Session1 Correlation continued RMS pp. 166-167 #1 – 4
W12Session2 Reliability and Validity of Measures
W12Session3 z scores, Correlation, Reliability, and Validity revisited: Scatterplot Exercise RMS p. 75 #4 & p. 76 #5

Week thirteen PROBABILITY & HYPOTHESIS TESTING

(11/17-11/21)

W13Session1 Probability & Hypothesis Testing RMS: Chpt. 7

W13Session2 Hypothesis Testing continued RMS: pp. 191-192 #1, all even #'d, & 13

W13Session3 HSIRB Process

Week fourteen (11/24-11/28)

W14Session1 HSIRB Proposal INDEPENDENT RESEARCH

PROPOSALS DUE

W14Session2 Thanksgiving Recess with Edit Tracker document
W14Session3 Thanksgiving Recess

Week fifteen WRAP UP

(12/1-12/5)

W15Session1 Hypothesis Testing & SPSS

W15Session2 Continued Prepare for SPSS lab assignment

W15Session3 Review for Final Exam Completed Pink sheets turned in

**Final Exam Week** 

PS211 Section A (MWF): Wednesday 12/10@ 8:30am Final Exam PS211 Section B (TRF): Thursday 12/11@ 1:30pm Final Exam