

**Psychology 211  
Experimental Methods & Data Analysis I  
Moravian College  
Spring 2016**

**Instructor: Dr. Michelle Stroffolino Schmidt**

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**Class Time: TR 10:20-12:45**

**Office Hours: Monday 9:30-11am; Tuesday & Thursday 8:45-10am; other times, just ask!**

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**Course Overview**

This course represents the first course in a two-course sequence. Both courses will focus on the scientific method as the means through which knowledge advances in the field of psychology. In this first course, students will be given an in-depth review of research methods and some of the statistical analyses used in psychological science. Students will be exposed to the process of developing and researching hypotheses, collecting data, testing hypotheses using appropriate statistical techniques, and interpreting and reporting statistical results. Descriptive and inferential statistics will be the tools through which students learn this research process. The result of this first course will be a research proposal that will be carried out in the second course next semester.

**Course Objectives**

1. To instill an understanding of the scientific process, research methodologies, and statistical tools used to summarize and interpret data.
2. To promote an appreciation of the connections between research design and statistical analysis for both basic and applied areas of inquiry.
3. To stimulate and challenge you to think critically and independently about the course material and to effectively critique others' work, so that you may become better consumers of information.
4. To encourage appropriate and effective written, verbal, and listening skills for both formal and informal communication.
5. To demonstrate the basics of SPSS (Statistical Package for Social Scientists).
6. To teach the process of writing a research paper according to the guidelines set out by the American Psychological Association.

### **Required Reading:**

American Psychological Association. (2001). Publication manual of the American Psychological Association (4<sup>th</sup> Ed.). Washington, DC: APA.

Heiman, G.W. (2001). Understanding research methods and statistics (2<sup>nd</sup> Ed.). New York: Houghton Mifflin Company.

### **Course Requirements and Grading**

Exams (x3)	100 points each
Comprehensive Competency Exam	150 points

Quizzes	10 points each
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Lab Assignments	10 points each
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APA Research Proposal

5 source annotated bibliography / sketch of proposed methods	20 points
Draft of the Proposal (Intro & Methods)	ungraded*
***will be reviewed with students in meetings to be scheduled	
THE Proposal	100 points

\*Note: Failure to turn in any of the ungraded assignments on time will result in a 10-point deduction for each missed assignment in THE Proposal grade.

Grades will be assigned using the standards listed in the Student Handbook:

**A** = "achievement of the highest caliber" reflecting "independent work, original thinking, and the ability to acquire and effectively use knowledge."

**B** = "higher than average achievement" which evidences "independent work and original thinking."

**C** = average work for which "the student has devoted a reasonable amount of time, effort, and attention to the work of the course and has satisfied the following criteria: familiarity with the content of the course, familiarity with the methods of study of the course, and active participation in the work of the class."

**D** = "unsatisfactory work, below the standard expected by the College" which indicates "work which in one or more important aspects falls below the average expected of students for graduation. The work is, however, sufficient to be credited for graduation."

**F** = failure.

**NOTE: THE PSYCHOLOGY DEPARTMENT HAS IMPLEMENTED A POLICY WHICH STATES THAT STUDENTS MUST EARN A GRADE OF C OR BETTER IN ORDER TO MOVE ON THE PSYCHOLOGY 212. BOTH PSYCHOLOGY 211 AND 212 ARE REQUIRED TO MAJOR IN PSYCHOLOGY.**

## **Elaboration of Requirements**

### **1. Exams**

There will be three equally weighted exams over the course of the semester. In addition, due to the fact that this course is a prerequisite to Psychology 212, there will be a cumulative final exam during the scheduled final exam period. Exams may include, but are not limited to, multiple choice items, identifications, short answer items, and computational problems. The specific format of each exam will be discussed during the class period prior to the scheduled exam period.

Make-up exams, with the exception of the final exam which cannot be made up under any circumstances, will be given only under extraordinary, documented circumstances, to be determined on a case-by-case basis by the instructor. If a student must miss an exam due to a medical reason or some other unavoidable and unforeseen reason, the student should, if possible, notify the instructor before the class period for which the exam is scheduled. Again, a missed exam will be administered on a case-by-case basis with appropriate documentation ONLY (e.g., doctor's note, accident report). If a make-up exam is granted, the exam will be individually designed and will be administered at 8:30 a.m. on the next available day. No make-up finals will be permitted.

### **2. Quizzes**

You will be required to complete periodic quizzes for chapters covered over the course of the semester (with the exception of chapter 1). All quizzes will be multiple choice. In most cases, quizzes will be given on the computers in our classroom during class. Make-up quizzes will not be permitted. You will take these quizzes on your honor; you may not use the text, a classmate, or any other person or resource to assist you in taking the quizzes.

Students are permitted to drop their lowest quiz score (or 1 missed quiz).

### **3. Lab Assignments**

We will hold a "lab session" using the computers in the classroom after we finish most of our chapters. Assignments will be given during each lab session or, on occasion, may be given as take home assignments. The first lab assignment will be a group article critique. For the remainder of the semester, the majority of assignments will focus on learning SPSS to run analyses and APA style to write papers. Some lab assignments will be finished during the designated class time and others will require additional homework time. Although students are free to discuss assignments with each other in lab, each student is required to turn in his or her own lab report.

### **4. APA Research Proposal**

There will be a series of assignments, spread out over the course of the semester, leading up to a final research proposal (see above). Students will prepare the proposal through a series of small assignments and receive feedback on early drafts. Students will be provided with specific guidelines for these assignments.

## **Class Policies**

### **1. Attendance**

Moravian College Academic Standards Policy states, “[s]tudents are expected to attend classes regularly” (Student Handbook). Class attendance is mandatory. Statistics is cumulative by nature and missing a class will interfere with a student’s ability to grasp the material. If a student must miss a class, he or she is responsible for getting missed notes or any information on revised schedules from a classmate. Excessive absences (2 or more) will be evaluated on an individual basis and may result in a 2-point deduction per absence on the final course grade. If a lab assignment is given on a missed class day, students will NOT be permitted to make up the lab. The lab assignment will receive a grade of 0. No make-up exams will be permitted. In the event of any exceptions due to documented and approved emergencies, the exam may be given and will be different than the one taken by the rest of the class. If special circumstances arise that cause a student to miss an excessive number of classes, he or she should contact the Learning Services Office.

### **2. Late Assignments**

Late labs, assignments, and threaded discussions will not be accepted. The article critique and APA research proposal assignments will be accepted late with a 10-point deduction for each partial or full day late beginning at the start of class on the due date, up to 5 partial or full days late (at which point, the paper will not be accepted). Failure to turn in drafts of papers and other ungraded pieces of work will result in a 10-point deduction on the final paper.

### **3. Academic Integrity & Honesty**

The Policy on Academic Honesty (Student Handbook) states, “Moravian College expects its students to perform their academic work honestly and fairly.” Therefore, students are expected to be honest in all matters pertaining to this class, without exception.

All work submitted for evaluation in this course must be original work. It may not be “borrowed” from another student or any other source without proper credit as outlined by the APA Manual. Please note that no part of your assignments may be shared with other students in this class or with students in future classes, and you may not refer to papers from previous classes. All papers submitted for this class must be original work completed to meet the requirements of this class.

Students may not plagiarize. The Moravian College Student Handbook states, “[w]hen students use the specific thoughts, ideas, writings, or expressions of another person, they must accompany each instance of use with some form of attribution to the source. Failure to do so is plagiarism, a major form of dishonesty.” Specific procedures for attribution for this course are outlined in the APA Publication Manual. Students must turn in copies of all sources used for papers (APA Research Paper) and are expected to “keep all notes, drafts, and materials used in preparing assignments until a final course grade is given.” A student judged to have violated the policy on academic honesty will receive a grade of zero for the relevant assignment or a failing grade for the course, at the discretion of the instructor. Any such violation will be reported in writing to the office of the academic dean.

#### 4. Civility

There is an expectation in this course that students will be respectful of one another. So, please don't do things that interrupt with the learning process. If your cellular phone rings, I will answer it; if you pop your gum, I will confiscate it! So, please do us all a favor and either leave it at home or turn it off when you get to class.

#### 5. Calculator

Please bring a calculator to all class meetings. You need not have a sophisticated calculator. The most advanced key that you will need is a square root button. You can purchase an appropriate calculator for \$5.00-\$10.00. **You may not use calculators that store equations or automatically solve for any of the statistical tests that we are learning this semester. If you use a prohibited calculator for an exam, your exam will receive a grade of zero.** If you are unsure whether your calculator is appropriate, please have the calculator approved by the instructor.

You may not use a calculator on a cell phone, computer, or other device. Just a plain, old-fashioned calculator is all you need.

#### 6. Learning Services Office

Students who wish to request accommodations in this class for a disability should contact the Academic Support Center, located in the lower level of Monocacy Hall, or by calling [610-861-1401](tel:610-861-1401). Accommodations cannot be provided until authorization is received from the Academic Support Center.

**SCHEDULE\***

<b>Date</b>	<b>Topic</b>	<b>Readings</b>
<b>Week 1: January 19, 21</b>	Introduction to the course Scientific Method	Ch 1
<b>Week 2: January 26, 28</b>	Design & Interpretation Library Lesson (2/28, 10:20-11:30)	Ch 2
<b>Week 3: February 2, 4</b>	Reliability & Validity IN-CLASS ARTICLE CRITIQUE LAB	Ch 3
<b>Week 4: February 9, 11</b>	Design Issues & Ethics in Experiments	Ch 4
<b>Week 5: February 16, 18</b>	Design Issues & Ethics in Descriptive Research <b>Annotated Bibliography Due (2/18)</b>	Ch 5
<b>Week 6: February 23, 25</b>	Catch-Up and Review for Exam 1 (10/4) <b>EXAM 1 (2/25)</b>	
<b>Week 7: March 1, 3</b>	Frequency Distributions & Percentiles Central Tendency	Ch 6 Ch 7
<b>SPRING BREAK</b>		
<b>Week 8: March 15, 17</b>	Central Tendency Variability	Ch 7 Ch 8
<b>Week 9: March 22, 24</b>	Variability Catch-Up and Review for Exam 2 <b>DRAFT OF PROPOSAL DUE (3/24)</b>	Ch 8
<b>Week 10: March 29, 31</b>	Catch-Up and Review for Exam 2 <b>EXAM 2 (chs 6-8; 3/31)</b>	
<b>Week 11: April 5, 7</b>	z-scores Correlation	Ch 9 Ch 10

**Week 12: April 12, 14**

Correlation

Ch 10

Regression

Ch 11

**FINAL PROPOSALS DUE (4/21)****Week 13: April 19, 21**

Regression

Ch 11

Probability

Ch 12

**EXAM 3 (chs 9-11; 4/21)****Week 14: April 26, 28****Catch-Up****Review for Final****FINAL EXAM: Time & Date TBD**

\*This schedule is subject to change by the instructor. This may affect the dates of assignments, quizzes, and exams. Changes will be announced in class or via email.