

**Psychology 400**  
**Advanced Research Methods in Psychology**

**Fall 2019**

**Instructor:** Dr. Christine Smith

**Office Hours:** Tuesday and Thursday 11:30-1:00 or by appointment.

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**Required Readings:**

A set of reading materials will be posted to BB.

**Recommended Text:**

American Psychological Association (2009). *Publication manual of the American Psychological Association* (6<sup>th</sup> Ed.). Washington, DC : APA. There is no need to purchase this text. There are several copies available at the GVSU's library, I have a copy in my office, and most of the relevant information can be found online. This is the source you should use for writing your papers.

All students must download SPSS onto their computers. My recommendation is to do so during the first two weeks of class. Please bring your computer to class each day. If doing so presents a problem for you, get in touch with me during the first week of class and I can make arrangements for you.

**This course is subject to the GVSU policies listed at** <http://www.gvsu.edu/coursepolicies/>

**Course Content and Objectives:**

**Objectives**

Upon completion of this course, students will be able to:

- 1) Explain research methods issues including ethical issues, measurement, reliability and validity of methods, experimental, quasi-experimental and survey research designs, biases in experimentation, and univariate and multivariate data analysis
- 2) demonstrate the ability to design and conduct an empirical study in psychology.
- 3) Write a research paper describing a psychology experiment.
- 4) discuss their study in critical ways by recognizing limits and problems.

The aim of this course is to cover advanced research design and data analysis with emphasis upon the concepts of **interaction**. Students (working in small groups) will experience the entire research process in that they will design, carry out, analyze, write up, and orally present a replication/extension study. The study must include a theoretically meaningful hypothesized interaction between independent variables and at least one independent variable must be manipulated experimentally. Students will gain experience working with the statistical package SPSS for Windows. In addition to carrying out the research project, students will read, analyze, and critique several published research articles related to internal and external validity. I will teach the content of the course primarily through our discussions of these research articles/example studies, therefore, it is extremely important that you come to class each day prepared (i.e., having read the assigned material for the day).

### **Course Requirements and Grade Determination:**

Your final semester grade will be based on classroom assignments, one exam, a research proposal, a formal written report of your completed original research project, and an oral presentation of both your proposal and your final project. Detailed descriptions are provided below.

**Class Assignments:** Over the course of the semester we will read and discuss published journal articles, instructional chapters/papers, and critique several studies. Several writing projects, based upon these readings, will be assigned. All written work must be completed and submitted via BB prior to the class discussion. Periodically, in class work will be assigned and collected. **Assignments submitted late will earn no more than half credit, no exceptions. Given the nature of the in-class work, if missed, it cannot be made up.**

**Exam:** There will be one exam given during the course of the semester. The exam will cover the material covered in lecture and will be comprehensive in nature.

**Research Project:** All students will work collaboratively (in small groups) on a replication/extension project. The project must be based upon sound theoretical and empirical rationale, have two independent variables, one of which can be manipulated, and include a hypothesized interaction.

**Proposal:** Each research team will submit a written APA style research proposal describing their project during the first third of the course. The proposal should include references to **at least 15 scholarly journal articles/book chapters**. Group members will co-present to the class their research proposals.

**Completed Project:** All students will submit a formal APA style paper describing the results of their research project. Additionally, group members will co-present to the class the findings of their research. This presentation should be approximately 15 minutes in length and include an overview of the area studied, the methodologies used, results obtained, and a discussion of implications. Presentations should be made in PowerPoint. Additional guidelines for the paper and presentation are posted to BB.

**Grading:** The course assignments and their point values are listed below

Written assignments	varied point value	100 points
Comprehensive Exam		100 points
Proposal		40 points
Proposal Presentation		20 points
Final Paper		100 points
Final Presentation		50 points
Class Participation		40 points

**Grade Distribution:**

A	100-94%	A-	93.99-90%	B+	89.99-87%
B	86.99-84%	B-	83.99-80%	C+	79.99-77%
C	76.99-74%	C-	73.99-70%	D+	69.99-67%
D	66.99-60%				
F	59% and lower				

**Course Schedule and Due Dates**

**Week 1**

**Aug. 27-29**

**Introduction to the Course**

In the first week I will provide an overview of the course along with some review material from Psychology 300.

**Tuesday:** Course Introduction/Interest paper

**Thursday:** Extending one way designs

**Week 2**

**September 3-5**

**The Importance of Replication**

**Internal Validity Issues**

**Readings:** Week 2 Readings Posted to BB.

**Week 3**

**September 10-12 Interactions**

**Readings:** Week 3 Readings Posted to BB. Assignment # 1 due (submitted to BB) by 5:00 on Thursday.

**Week 4**

**September 17-90 Interactions and External Validity**

**Readings:** Week 4 Readings Posted to BB. Assignment # 2 due (submitted to BB) by 8:00 AM on Thursday.

**Week 5**

**Sept. 24-26 Introduction to Qualtrics and Project Consultations**

**Readings:** Week 5 Readings Posted to BB. Assignment # 3 due (submitted to BB) by 5:00 PM on Thursday.

**Week 6**

**October 1-3 Group Meetings and Data Analysis Techniques**

**Week 7**

**October 8-10 Informal Project Presentations and Data Analysis Techniques**  
Assignment # 4 due (submitted to BB) by 5:00 PM on Thursday.

**Week 8**

**October 15-17 SPSS and Data Analysis Techniques**  
**Proposals due on October 18 by 5:00 PM** (submitted to BB).

**Week 9**

**October 24 SPSS and Data Analysis Techniques**  
Groups/individual students will make appointments to meet with me to discuss analyzing project data.  
Assignment # 5 due (submitted to BB) by 5:00 PM on Thursday.

**Weeks 10-11**

**October 29-Nov 7 DATA ANALYSIS: Individual/Group Meetings/Consultations**

**Week 12**

**November 12-14 Group Meetings and Interpretation of research findings.**  
Presenting your findings orally and in writing.

**Week 13**

**November 21 Comprehensive Exam Covering Course Material on Thursday**

**Weeks 14-15**

**Nov 26-Dec 5 Formal Presentations of Research Projects.**  
**Final Papers are due December 2<sup>nd</sup> by 5:00.**