

PSY300-15 -- Research Methods in Psychology (SWS), Winter 2020

T/Th, 2:30-3:45; 2132 ASH

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Office Hours: T 1:30-2:30 & 4-5pm
Th 1:30-2:30pm

Required Text:

Shaughnessy, J.J., Zechmeister, E.B., & Zechmeister, J.S. (2015). *Research methods in psychology* (10th ed.). Boston, MA: McGraw-Hill.

Course Content:

This course provides an introduction to research methods in psychology from the perspective of a researcher and from the perspective of a consumer of research-related reports. Throughout the semester you will be exposed to a broad range of topics related to each stage of the research process, with a particular emphasis on the logic of research, study design and implementation, and a theory-guided interpretation of findings. The course requires you to develop a good understanding of methodology, write research reports using APA-style, and interpret results of statistical analyses. Because the course makes demands on a number of levels, most students find it both challenging and time-consuming. Thus, you should be prepared to spend a significant amount of time each week (6-8 hours, in addition to class time) on work related to the course.

An integral step in the scientific method is transforming data into results, a process that generally requires the use of statistical analyses. It is important to have a good understanding of basic statistics, so if you have not successfully completed STA215 you should not be enrolled in this course. After researchers analyze their data, they typically discuss the results and interpretation in formal scientific reports. To do this successfully they must have strong writing skills and understand formatting and structural issues related to the reports. PSY300 is designed to foster this learning and writing skill acquisition, and as such is designated as an SWS course. You will be required to do a significant amount of writing, in the form of in-class exercises, research-related writing assignments, and essay examinations. For additional information regarding SWS-designated courses, please see the last page of the syllabus.

Course Policies:

The use of electronic devices during class. The use of cell phones will not be allowed during class, so please turn phones off and put them away before class begins. The use of laptops is discouraged; however, students who would like to use laptops to take notes for PSY300 may do so if they sit in the back of the classroom and do not disturb others. Audio and/or video recording of classes will be allowed only with explicit permission from Prof. Shupe.

Other university policies. In addition to the policies described above, you will be expected to comply with all course-related policies at GVSU (see <http://www.gvsu.edu/coursepolicies/> for a complete listing).

Academic integrity. As in other courses at GVSU, you are expected to do your own work in PSY300 and to not plagiarize or cheat in any way. This includes 1) taking or receiving help from others during exams or quizzes; 2) attempting to pass off someone else's work as your own; 3) using ideas, sentences, or phrases from a source without proper citation; 4) copying part or all of another student's answers on assignments; 5) completing part or all of an assignment for another student; and 6) submitting part or all of an assignment that has been previously graded or is being submitted concurrently for another course without authorization from Prof. Shupe. If you are unsure

if a specific action constitutes a breach of academic integrity, please discuss it with Prof. Shupe. Cheating and plagiarism are likely to result in a zero on the relevant exam, quiz or assignment, reported to the Chair of the Psychology Department, and documented in your student record.

Course Objectives:

Topics covered in the course and methods of evaluation are designed to help students develop one or more of the following:

- Understanding of the different types of reliability and validity, strategies for maximizing them, and ways to assess them
- Understanding of the major research strategies used in psychological research, including the logic on which they are based, their strengths and weaknesses, and the types of research hypotheses & questions they are best suited to address
- Understanding of ethical issues in psychological research
- Understanding of confounds and the ability to recognize potential confounds; an understanding of how to prevent confounds and/or minimize their effects
- Understanding of the NHST approach to hypothesis testing, its limitations, & hypothesis testing procedures used in addition to (or instead of) NHST
- Understanding of the importance of replication in psychological research
- Understanding of effect sizes and statistical power, and their roles in research
- Understanding of common descriptive statistics & the ability to calculate them
- Understanding of the purposes and logic of *t*-tests and 1-way ANOVAs, & the ability to interpret relevant test statistics and *p*-values
- Understanding of the logic of 2-way ANOVAs and a good understanding of simple effects, main effects, & interactions
- Understanding of the purpose, logic & structure of an APA-style research report
- Ability to conduct a literature search
- Ability to describe the details of and summarize the essence of research articles
- Ability to design an empirical study consistent with the standards of psychological science
- Ability to write a well-developed, articulate APA-style report and to identify strengths and weaknesses in one's own scientific writing and in the writing of others
- Critical thinking skills, especially as related to understanding research reported by others and in developing psychological research reports

Course Requirements:

Semester grades will be based on 4 exams; 3 quizzes; 2 critical evaluation assignments; an APA-style research proposal introduction; an applied research paper, and 2 assignments related to the research proposal.

Exams & quizzes

You will have four exams over material covered in the readings and in class. Three exams will be worth 40 points and take place during class periods. The fourth exam will be a cumulative final exam worth 50 points. The format of all exams will be multiple choice and free response. When at all possible, arrangements for a make-up exam should be made with Prof. Shupe before the day of the scheduled exam. You will also have four 5-point quizzes covering topics discussed in the assigned readings. The lowest of these quiz grades will be dropped. Make-up exams and quizzes will be allowed only in cases of documented emergencies.

Writing Assignments

Research Proposal Introduction

Description. Each student will be required to write an APA-style research paper Introduction, proposing a randomized experiment or quasi-experiment on a psychological topic. Although you will have some leeway in your choice of topic, the study you propose must be an original experiment with at least one experimental (manipulated) independent variable. Students who propose quasi-experiments must use a strong quasi-experimental design and include a discussion of their rationale for not proposing a randomized experiment, as well as a discussion of the limitations of their design. The study must be developed and based on sound theoretical and empirical rationale, using at least four peer-reviewed articles from professional journals. The paper must be written in APA-style (6th edition) and include a title page and a list of references.

Evaluation: The paper will be worth a total of 30 points toward your final semester grade. Evaluation of the proposal will be based on writing quality (e.g., grammar, clarity, organization, and coherence), appropriateness and comprehensiveness of content, and APA style. Although not mandatory, it is a good idea to turn in a draft of the proposal to Prof. Shupe for feedback. If you decide to turn in a draft, please submit a hard copy at least two business days before you would like to have it returned. Late papers will be accepted up to three days after the deadline. Except in the case of a documented emergency, 10% of the total possible points will be deducted for each day the proposal is late.

Assignments Related to Introduction

You will also be required to complete a brief proposal assignment, in which you describe the purpose, rationale, and design for the study you propose for the Introduction, and a design and analyses assignment, in which you describe the proposed design of the experiment and the statistical analyses that would be required to understand the data. The assignments will be worth 10 points each, and they will be evaluated based on writing quality (e.g., grammar, clarity, organization, and coherence), appropriateness and comprehensiveness of content, and APA style. Instructions and grading rubrics will be discussed in class and posted on Blackboard. Late assignments will be accepted up to three days after the relevant deadline. Except in the case of a documented emergency, 10% of the total possible points will be deducted for each day an assignment is late.

Applied Research Paper

In addition, you will be required to write a 3-4 page paper in which you apply a specific area of research to make a policy recommendation or propose a program evaluation. The paper will be worth a total of 20 points toward your final semester grade, and it will be evaluated based on writing quality (e.g., grammar, clarity, organization, and coherence), appropriateness and comprehensiveness of content, and APA style. Instructions and the rubric used for evaluating the paper will be discussed in class and posted on Blackboard.

Critical Evaluation Assignments

Finally, there will also be two 5-point assignments requiring you to critically evaluate descriptions of psychological theory and/or research found in the popular media. Instructions for the assignments will be discussed and handed out in class.

Grade Determination:

As stated above, semester grades will be based on 4 exams, 3 quizzes, an introduction section of a research proposal, 2 assignments related to the proposal, an applied research paper, and 2 critical evaluation assignments. Grades will be determined using the rubric below.

<u>Grade</u>	<u>Percentages</u>
A	92.5-100%
A-	90-92%
B+	87.5-89.5%
B	82.5-87%
B-	80-82%
C+	77.5-79.5%
C	72.5-77%
C-	70-72%
D+	67.5-69.5%
D	60-67%
F	0-59.5%

Tentative Class Schedule

Date	Topics & Readings	Exams, Quizzes, & Assignments
1/7	Introduction to research methods	
1/9	The scientific method (Ch. 2)	
1/14	The role of theory (Ch. 2)	
1/16	Intro. to experiments & quasi-experiments	Critical evaluation assignment due
1/21	Research writing: APA style & format Reliability (PJCLC, Sect. 4.2)	
1/23	Validity (PJCLC, Sect. 4.2)	
1/28	Ethics (Passer, pp. 72; 76-89)	Quiz: Ethics (Passer, pp. 72; 76-89)
1/30		EXAM 1
2/4	Randomized experiments (Ch. 6, pp. 178-195)	
2/6	Randomized experiments (Ch. 6, pp. 178-195)	Brief Proposal due
2/11	Repeated measures designs (Ch. 7, pp. 219-224); Complex designs (Ch. 8, pp. 243-256)	
2/13	Complex designs (Ch. 8, pp. 243-256)	
2/18	Quasi-experiments/Program evaluation (Ch. 10)	
2/20	Naturalistic observation/unobtrusive measures (Ch. 4)	
2/25		EXAM 2
2/27	Self-report measures (Ch. 5); Research writing	Introduction due
3/3-3/5	No class - Spring break	
3/10	Self-report measures; Surveys (Ch. 5)	Quiz: Surveys (Ch. 5, pp. 138-148)
3/12	Replications (Stangor, pp. 265-272); Research writing	Quiz: Stangor, pp. 265-272

Date	Topics & Readings	Exams, Quizzes, & Assignments
3/17	Descriptive stats & procedures (Ch. 11)	Quiz: Descriptive stats/procedures
3/19	Descriptive stats & procedures (Ch. 11); NHST (Ch. 12, pp. 379-386)	
3/24	Criticisms of & alternatives to NHST	Applied paper due
3/26	<i>t</i> -tests (Morling, pp. A34-A39); Research writing	
3/31		EXAM 3
4/2	1-way ANOVA (Ch. 12, pp. 392-413)	
4/7	Critical evaluation assignment (in class)	
4/9	2-way ANOVA (Ch. 12, pp. 392-413)	Design & analyses assign. due
4/14	Interactions & main effects	
4/16	Review for final exam	
	Th, 4/23, 2-3:50pm	FINAL EXAM

Additional Information Related to SWS Courses

Requirements

As with other SWS courses, completion of WRT 150 with a grade of C or better (not C-) is a prerequisite for PSY300. SWS credit will not be given to a student who completes this course before completing the prerequisite. SWS courses adhere to certain guidelines. Students turn in a total of at least 3000 words of writing. Part of that total may be essay exams, but a substantial amount of it is made up of essays, reports, or research papers. The instructor works with the students on revising drafts of papers, rather than simply grading the finished piece of writing. At least four hours of class time will be devoted to writing instruction. At least one third of the final grade in the course is based on the writing assignments. Students must complete the course with a grade of "C" or better in order to receive SWS credit.

Resources available at GVSU

The Fred Meijer Center for Writing, with locations at the Allendale and Pew/Downtown Grand Rapids campuses, is a peer service available to assist you with writing for any of your classes. Writing consultants, who are fellow GVSU students, are trained to help you with all stages of your writing process, from brainstorming to organizing to editing your papers. Simply bring an idea, prompt, or draft of your paper along with the assignment sheet to any of the Center's locations. Also, through your Gmail account, you have access to online consultations through Google Docs. The Center's services are free and you can drop in and work with a consultant or make an appointment, either through our website or by calling the Center (331-2922). Peer support is available for research and speech/presentation through the Knowledge Market, where the Writing Center partners with the Speech Lab and the Peer Research Center. Additional information about the Knowledge Market (<https://www.gvsu.edu/library/km/>) and Writing Center services and locations can be found on our website: <http://www.gvsu.edu/wc/>