

# Research Methods in Psychology

(PSY 300 – Spring 2022)

Sections 13 & 16

## About Me:

**Professor:** Jonathan JK Stoltman, PhD

**Contact:** [stoltmaj@gvsu.edu](mailto:stoltmaj@gvsu.edu)

**Office:** 2109 Au Sable Hall

**Office Hours:** 1-2p T/R (appointments for other times can be requested, may be in-person or remote). In-person office hours end April 19<sup>th</sup>. No Office Hours on Exam Days.

**Contacting me:** e-mail is best, office hours too, but I'll also be around before and after class. I check e-mail throughout the day but may only reply during normal business hours (9 am – 5 pm) during the work week (M-F). I will send regular emails with course updates, recaps, etc. Announcements like these are considered amendments to the syllabus. *Please read all relevant emails before sending me an email. I may not reply if the question is answered in one of my announcements or emails.*

**My expertise:** For the past 8-years I have been an addiction research scientist. I earned a Ph.D. and a master's degree from West Virginia University, a master's in counseling with a focus on substance use disorders from Wayne State University, and a bachelor of science from the John Carroll University. I have published in top academic journals, conferences, and had our work featured on Vox, NPR, and TechCrunch. My main areas of research are the intersection of addiction and sexual/reproductive health, privacy and technology, and addiction related stigma.

## Our Social Contract:

In order for this course to function optimally, we both have parts to play, and when we each do our part, everyone benefits. As professor, I promise to always do my very best to select interesting and thought-provoking course material. I will prepare course materials to the best of my abilities, and I will make decisions about the course according to the learning goals I have outlined here. I will act fairly – holding every student to the same high standard and providing equal opportunities for success. I will also work to make this course not stressful should you have a health or other emergency during the semester. I included a number of drops so the lowest score (or if you miss an assignment) won't drag down your grade. I will also work to record lectures should you not be able to attend class on those given days. The best experience for the class will be in-person (since I can respond to questions in real time), but that might not always be possible this semester.

As student, you promise to prepare diligently for class, to always contribute to the best of your abilities, to never cheat or act dishonestly, and to treat your classmates and me with the highest respect. You will do your best to attend any scheduled meetings and be on time. You will not ask me to grant you special privileges that aren't available to the rest of your classmates, in order that I may adhere to my promise to be fair and just to all of you.

## Course Info:

**Credits:** 3

**Prerequisites and/or co-requisites:** PSY 101; STA 215 or STA 312; WRT 150 (C or better)

**Course Location:**

Section 13: 11:30 – 12:45; Padnos 211

Section 16: 2:30 – 3:45; Padnos 207

**Textbook (Required):**

Research Methods in Psychology: Evaluating a World of Information. (2021; 4<sup>th</sup> edition) by Beth Morling.  
Electronic version is a good option.

GVSU Save may be a good option to get a cost-effective digital version.

ISBN-13: 978-0393536270

ISBN-10: 0393536270

**Alternative Textbook:**

Research Methods in Psychology: Evaluating a World of Information. (2017; 3<sup>rd</sup> edition) by Beth Morling.

3<sup>rd</sup> edition may be an acceptable (and more cost effective) alternative. It is the student's responsibility to ensure that they have read the required sections should they choose to use the alternative text. Quizzes and exams will be based on the 4<sup>th</sup> edition, material presented in class, and online.

**Recommended Supplemental Text:**

Publication Manual of the American Psychological Association, 7th Edition (**available at the library and online – DO NOT BUY THIS**)

**Additional Readings:**

All other required readings will be posted on the course website.

**Computer Access:**

Required. Submitting course assignments, quizzes, and exams will all require computer access. Supplemental information will be provided on Blackboard. Course info will be provided through email. Online asynchronous class may also take place over zoom or with recordings posted on Blackboard.

**Attendance:**

Not required but highly encouraged. I will try to upload and record all courses.

**Course Policies:**

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

## Course Description:

This course is designed to introduce you to basic research methods in psychology. Emphasis on the logic of psychological research, the formulation and testing of hypotheses, research design, sampling procedures, data collection and analysis, and the ethics of conducting research. This is a supplemental writing skills course (SWS) and will have focused elements on developing writing skills relevant to psychology.

### Objectives:

The aim of this course is to acquaint students with basic research methods in psychology while exploring practical, theoretical, and ethical issues regarding research design and its implementation in psychology.

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

1. describe the details of and summarize the essence of research articles.
2. write clearly and cogently in a scientific way.
3. design an empirical study consistent with the standards of psychological science.

Domain	Objectives for 300
The scientific method in psychology	<ul style="list-style-type: none"><li>▪ Be able to distinguish scientific from pseudo-scientific approaches</li><li>▪ Understand how research is produced and peer-reviewed before being published in the scientific literature</li></ul>
Theories and hypotheses	<ul style="list-style-type: none"><li>▪ Understand the difference between a theory and a hypothesis</li></ul>
Searching the scientific literature	<ul style="list-style-type: none"><li>▪ Use PsycInfo to locate peer-reviewed articles on a research topic</li><li>▪ Create citations for articles in-text and in reference list according to APA style</li><li>▪ Read and understand primary source literature in psychology</li></ul>
Research ethics	<ul style="list-style-type: none"><li>▪ Understand and apply principles from the Belmont Report given research with a particular design</li><li>▪ Remember and recognize examples of questionable research practices that undermine the scientific literature</li></ul>
Experimental designs	<ul style="list-style-type: none"><li>▪ Recognize an experimental design</li><li>▪ Distinguish between-subjects from within-subjects designs</li><li>▪ Recognized mixed (between and within) designs</li><li>▪ Identify the independent variable and dependent variable in a research design</li><li>▪ Distinguish experimental designs from correlational and quasi-experimental designs</li><li>▪ Understand that experimental designs test causal claims</li><li>▪ Recognize threats to internal validity in the context of experimental designs</li></ul>
Correlational designs	<ul style="list-style-type: none"><li>▪ Understand that correlational designs test associational claims</li><li>▪ Explain why correlation does not prove causation</li><li>▪ Recognize validity threats for correlational designs</li><li>▪ Identify potential third variables given a study's design</li><li>▪ Distinguish correlational from experimental designs</li></ul>
Internal validity	<ul style="list-style-type: none"><li>▪ Remember and understand factors that strengthen causal conclusions in a research design</li></ul>

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	<ul style="list-style-type: none"><li>▪ Understand the importance of random assignment for strengthening internal validity</li></ul>
External validity	<ul style="list-style-type: none"><li>▪ Remember and understand the factors that strengthen generalizability of conclusions in a research design</li><li>▪ Distinguish sample from population</li><li>▪ Understand the importance of random selection for external validity</li></ul>
Construct validity	<ul style="list-style-type: none"><li>▪ Distinguish operational definitions from conceptual definitions</li><li>▪ Understand reliability in the context of measurement</li><li>▪ Distinguish reliability from validity</li><li>▪ Evaluate construct validity and reliability of published measures/operationalizations</li><li>▪ Recognize scales of measurement (nominal, ordinal, interval, ratio)</li></ul>
Statistical validity	<ul style="list-style-type: none"><li>▪ Understand the text of results as reported in primary research articles</li><li>▪ Interpret graphical displays of data (e.g., bar chart and scatterplot)</li><li>▪ Be able to distinguish bivariate from multivariable designs (one predictor vs. more than one predictor)</li><li>▪ Distinguish third variables from mediators and moderators, conceptually</li></ul>
Writing in APA style	<ul style="list-style-type: none"><li>▪ Recall rules of APA style, including use of numerals, sections in an APA style report, references, fonts, tables and figures</li><li>▪ Summarize the results of published research in writing</li><li>▪ Be able to distinguish data-based results from interpretation/extrapolation from those results</li><li>▪ Critique research studies in writing based on their designs and relevant threats to validity</li><li>▪ Integrate findings from 2-4 research articles into a brief, coherent narrative</li></ul>

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## Course Calendar:

Unit	Dates	Topics	Quizzes/Homework
<b>Part 1</b> Scientific Reasoning	Jan 11, 13, 18	<ul style="list-style-type: none"> <li>A New Way of Thinking</li> <li>Sources of Information</li> <li>Consumers of Research</li> </ul>	Quiz 1 + 2 ( <b>Jan 18, 10p</b> ) Reading Part 1
<b>Part 2</b> Research Foundations for Any Claim	Jan 20, 25, 27	<ul style="list-style-type: none"> <li>Ethics</li> <li>Good Measurement</li> </ul>	Quiz 3 + 4 ( <b>Jan 27, 10p</b> ) Reading Part 2
<b>Exam 1 Review</b>	Feb 1	<b>Overflow, Review Part 1 + Part 2</b>	
<b>Exam 1</b>	<b>Feb 3, 10p</b>	<b>Part 1 + Part 2</b>	<b>NO CLASS THIS DAY</b>
<b>Academic Writing 1</b>	Feb 8, 10	<ul style="list-style-type: none"> <li>Finding Scientific Journal Articles</li> <li>Basics of APA</li> </ul>	Reading on-line Activities 1 + 2
<b>Writing Activity 1 + 2 Due</b>	<b>Feb 11, 10p</b>		<b>Activity 1 + 2</b>
<b>Part 3</b> Tools for Evaluating Frequency Claims	Feb 15, 17, 22	<ul style="list-style-type: none"> <li>Surveys and Observation Sampling</li> </ul>	Quiz 5 + 6 ( <b>Feb 22, 10p</b> ) Reading Part 3
<b>Part 4</b> Tools for Evaluating Association Claims	Feb 24 Mar 1, 3	<ul style="list-style-type: none"> <li>Correlations – bivariate and multivariate</li> </ul>	Quiz 7 + 8 ( <b>Mar 3, 10p</b> ) Reading Part 4
<b>SPRING BREAK</b> (Mar 6 – 13)			
<b>Exam 2 Review</b>	Mar 15	<b>Overflow, Review Part 3 + Part 4</b>	
<b>Exam 2</b>	<b>Mar 17, 10p</b>	<b>Part 3 + Part 4</b>	<b>NO CLASS THIS DAY</b>
<b>Academic Writing 2</b>	Mar 22, 24	<ul style="list-style-type: none"> <li>Revisions</li> <li>Writing Strong Paragraphs</li> <li>Summarizing and Critiquing Scientific Articles</li> </ul>	Reading on-line Activities 3 + 4
<b>Writing Activity 3 + 4 Due</b>	<b>Mar 25, 10p</b>		<b>Activity 3 + 4</b>
<b>Part 5</b> Tools for Evaluating Causal Claims	Mar 29, 31 Apr 5	<ul style="list-style-type: none"> <li>Experiments</li> <li>Confounding Variables</li> <li>Multiple Independent Variables</li> </ul>	Quiz 9 + 10 ( <b>Apr 5, 10p</b> ) Reading Part 5
<b>Part 6</b> Balancing Research Priorities	Apr 7, 12, 14	<ul style="list-style-type: none"> <li>Quasi-experiments</li> <li>Small <i>n</i> Design</li> <li>The Real World</li> </ul>	Quiz 11 + 12 ( <b>Apr 14, 10p</b> ) Reading Part 6
<b>Exam 3 Review</b>	Apr 19	<b>Overflow, Review Part 5 + Part 6</b>	
<b>Exam 3</b>	<b>Apr 21, 10p</b>	<b>Part 5 + Part 6</b>	<b>NO CLASS THIS DAY</b>
<b>Writing Activity Revisions Due</b>	<b>Apr 23, 10p</b>	Revisions from Activities 1 + 2	Activities 1 thru 4
<b>Cumulative Final Exam</b>	<b>Apr 28, 10p</b>	<b>Part 1 thru Part 6</b>	<b>NO CLASS THIS DAY</b>

*n.b., Subject to change with proper notification; EXAMS are open for 48hrs prior to due date/time*

## Due Date Summary List:

<b>Activity</b>	<b>Due Dates</b>
Quizzes 1 + 2	Jan 18, 10p
Quizzes 3 + 4	Jan 27, 10p
Exam 1	Feb 3, 10p
Writing Activity 1 + 2	Feb 11, 10p
Quizzes 5 + 6	Feb 22, 10p
Quizzes 7 + 8	Mar 3, 10p
Spring Break	Mar 6 - 13
Exam 2	Mar 17, 10p
Writing Activity 3 + 4	Mar 25, 10p
Quizzes 9 + 10	Apr 5, 10p
Quizzes 11 + 12	Apr 14, 10p
Exam 3	Apr 21, 10p
Writing Activity Revisions Due	Apr 23, 10p
Cumulative Final Exam	Apr 28, 10p

All activities, exams, and quizzes are online.

All due dates are for 10p on the day indicated.

Subject to change.

## Evaluation:

### Exams:

There will be four (4) total exams. Three (3) "regular" exams and one (1) *cumulative* final exam. Exams will be multiple choice and administered online. The lowest scoring from the 3 "regular" exams is dropped. The final exam is not able to be dropped. All exams are online, open-book, and "open" for (minimally) a 48-hour period. Exams are not to be taken in groups and doing so is a violation of the student code of conduct + considered cheating and may result in a zero for the exam or the class. Exams will be based on the 4<sup>th</sup> edition textbook, material presented in class, and online.

### Quizzes:

There will be 2 brief quizzes per unit, 12 total. The purpose of the quizzes is to help you check your understanding of course material and make sure you are keeping up with the material. The quizzes are designed to be low stakes check-ins and a good way to stack points. *Not performing well on the quizzes is a sign to seek help before an exam.* At the end of the semester, the lowest scoring two quizzes will be dropped (out of the total 12 number of quizzes). Quizzes will be open the full length of the unit until their due date/time noted in the syllabus. You are encouraged to take quizzes alone to check *your* understanding. Quizzes will be based on the 4<sup>th</sup> edition textbook, material presented in class, and online.

### Writing Activities:

There will be four (4) total writing activities. The lowest scoring writing activity will be dropped at the end of the semester. To develop students' capabilities to write like psychologists, students will complete a series of writing training exercises, including worksheets and article critiques. These exercises will hone individual skills that are needed to locate, understand, evaluate, and synthesize psychological research articles. Writing activities are to be completed individually unless noted otherwise. Completing activities with other people may be a violation of the student code of conduct + considered cheating and can result in a zero for the activity or the class. Writing activities are due at the date/time noted in the syllabus.

### Point Breakdown by Category:

Assignment	Number of Assignments	Points Per	Total Possible Points	% of Total Grade
"Regular" Exams**	3	110	220	27.2%
Final Exam	1	190	190	23.5%
Quizzes**	12	10	100	12.3%
Writing Activities**	4	50	150	18.5%
Writing Revision**	4	50	150	18.5%
<b>TOTAL</b>			810	100%

***n.b., \*\*Lowest Score(s) Dropped***

## Grading Scale:

Grade	%
A	94-100
A-	90-93
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	60-66
F	<60

## Late Policy:

Course deadlines are arranged by course unit with all deadlines at 10:00 pm (EST). *Why 10pm? Because healthy sleep is an important part of overall (and psychological) well-being.* Deadlines are used to help students progress towards course completion. As such:

- Late quizzes are not accepted.
- Late writing activities are not accepted.
- Late exams are not accepted.

Students with extenuating emergency or health circumstances should reach out to the instructor via email as soon as possible. Since the window for all assignments is 48 or more hours, emergency or health situations less than 24 hours from the due date/time may not be accommodated. Also, I built in drops to reduce the stress of these circumstances.

### Drops:

We drop the *lowest scoring*:

- Two (2) quizzes (from the whole of the semester, not per unit)
- One (1) writing activity
- One (1) exam from the 3 regular exams (final exam not eligible to be dropped)

## Supplemental Writing Skills (SWS) Course Info:

This course is designated SWS (Supplemental Writing Skills). Completion of WRT 150 with a grade of C or better (not C-) is a prerequisite. 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. Students may receive SWS credit for taking the course as Credit/No Credit provided the student passes the course with a "Credit" grade.

Writing skills will be taught through structured activities during the two Academic Writing Weeks noted on the course calendar. Each Academic Writing Week will have accompanying activities that can be worked on in-class or outside of class and are due at 10p on the days noted. A total of 4 writing activities will be assigned. The lowest score for the activities is dropped from the final point total. Each writing activity is worth 50 points. Each writing activity will also have revisions and an opportunity to re-submit for additional points at the end of the semester. Office hours and additional instruction is available to provide support during the revision process. Writing assignments are to be completed independently unless otherwise noted.

## Disability Accommodation:

Any student in this class who has special needs because of a learning, physical, or other disability, please contact me and Disability Support Services (DSS) at (616) 331-2490. It is the student's responsibility to request assistance from DSS.

## Academic Honesty:

Unless otherwise noted, all work for this course should be independently completed. Students should take special care to provide proper citation of sources when submitting written work. Adopting words, passages, or ideas without citation is *plagiarism* and will be treated as such per GVSU guidelines. Furthermore, students should not self-plagiarize, that is, reuse their own work from another course. The penalties for academic dishonesty range from zero on that assignment to failure in the course.

**A note about collaboration:** Collaborative work is sometimes allowed in this course. Collaborative work means sharing ideas with your peers. Collaboration does not mean giving completed work to your peers to use.

For additional details on academic honesty, please see the student code.

## Miscellaneous:

### **Writing Center:**

Fred Meijer Center for Writing and Michigan Authors

Web: [gvsu.edu/wc](http://gvsu.edu/wc)

Contact: [virtualwc@mail.gvsu.edu](mailto:virtualwc@mail.gvsu.edu) (616-331-2922)

Location: Lake Ontario Hall, Room 120 (Allendale)

Online: Virtual writing support is available during all hours of operation for both drop-ins or scheduled appointments. Email support is also available (provided within 72 hours of submission). The Fred Meijer Center for Writing provides writing assistance to all GVSU students, on any type of project and at any stage of the process. The Writing Center employs both undergraduate and graduate writing consultants from across majors and disciplines. Consultants are trained to help writers brainstorm, organize, or develop their ideas; and they can help writers edit their own work and document sources correctly. The Center's services are free and students can work with an idea, assignment prompt, or draft of their paper. Students can virtually drop in or schedule an appointment; both appointments and drop-ins are available during all service hours.

Due to COVID-19, all writing center services are available online. Limited in-person consulting may be available; please check the Writing Center's website for up-to-date information. All service options (drop-ins, appointments, email support) can be accessed via the Writing Center's online scheduling system -Book It. We look forward to working with you!

### **Library Services:**

Each department has a designated librarian to support your research needs. Samantha Minnis is our liaison librarian for Psychology. Her email is [minniss@gvsu.edu](mailto:minniss@gvsu.edu) and she is available for online consultations: BB Collaborate, Google Meet, Zoom, or email. You can also check out the Psychology Subject Guide, which is a great place to start your library research.

### **Knowledge Market:**

Our highly trained student consultants work one-on-one or in small groups to help with your library research, digital skills, writing, or oral presentations. We now offer online support in two ways: online peer consultations during open hours and a database of browsable resources that are available 24/7. For information about the Knowledge Market or to make a virtual appointment, visit [www.gvsu.edu/library/km](http://www.gvsu.edu/library/km).

### **Library Services:**

You can find out more about our library spaces, how to check out books and access articles, and other library services this semester by visiting our Buildings Reopening page and our online services.