

## **RESEARCH METHODS IN PSYCHOLOGY**

PSY 300 - Fall 2023

Prof. Katie Corker

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Prerequisites: PSY 101 or HNR 234, STA 215 or STA 312, WRT 150

Office Hours: Tuesday/Thursday 2:30-3:30pm

Appointments during Office Hours:

<https://katiecorker.youcanbook.me/>

Appointments at other times (email to request)

Note: This course is subject to the GVSU policies listed at

<http://www.gvsu.edu/coursepolicies>

### **I. Course Overview**

The world is awash in data and claims, but how can you tell which data and claims to believe? This course will teach you to look at the world like a research psychologist. You will learn how to identify the claim in a research study, as well as how to tell if the claim is likely to be true or valid. We will work to understand different types of research designs, the types of claims made based on those designs, and the strengths and weaknesses of those designs. In addition to learning to be a critical consumer of research, this course will strengthen your ability to communicate about the results of research with training in writing like a psychologist.

This course is designated SWS. 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.

## II. About Your Instructor

- A. Contacting me.** The best way to contact me is via e-mail. I typically check e-mail throughout the day, but only during normal business hours (9 am - 5 pm). If you send me an email in the evening, you may not get a response until the next business day.
- B. Office hours.** Office hours are listed above, but I am available to meet with you during other times, if you make an appointment with me by e-mail.
- C. My expertise.** I was trained as a personality and social psychologist with a specialization in quantitative methods. I earned a Ph.D. and a master's degree from Michigan State University and a bachelor of arts from the University of Northern Iowa. I have conducted research in the areas of motivation, goal setting, academic achievement, and the role of personality in influencing all of these variables. Much of my current research pertains to replicability in psychological research, what has been termed "meta-science" (the study of science and scientists).

## III. Required Reading

### Required Readings:

Note: We are using GVSU save for this course. If you would like to opt out and instead have a physical book, contact the campus bookstore.

*Research Methods in Psychology: Evaluating a World of Information.* (2021; 4th edition) by Beth Morling, ISBN: 978-0393617542

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

### Recommended Supplements:

1. Sarnecka, B. (2019). *The writing workshop: Write more, write better, be happier in academia.* <https://osf.io/z4n3t/> (free)
2. *Publication Manual of the American Psychological Association, 7<sup>th</sup> Edition*

#### **IV. Learning Objectives**

[From the syllabus of record] Upon 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.

This course is designed to help students develop their skills in the following areas:

- A. Psychological research, focused on the consumer role.** In addition to those skills mentioned in the course overview and learning objectives (above), students will learn how to think like psychological scientists. They will learn how to distinguish a good research design from a poor one. They will learn how to identify valid and reliable tests and measures. They will learn how to recognize confounds in research design. In short, they will learn what they need to know to evaluate the claims in a psychological research study.
- B. Analytic writing.** Students will develop their capability to present an argument persuasively in written language. Research papers, like many other forms of writing, seek to pose a question and answer it. That is, they contain a central argument supported by evidence. Furthermore, they tell a story - taking the reader on a journey along a line of reasoning. In this course, students will begin to learn how to craft such arguments persuasively and with support from data.
- C. Quantitative reasoning and graphical displays of data.** Students will reinforce a basic grounding in statistics as used in psychological research. This course focuses on the use of such concepts in research reports. Students will learn to understand and critique reports of results in research articles. Students will learn to interpret graphical displays of data.

It is the instructor's goal that students become proficient in each of these key areas. Evaluations are designed to assess proficiency in these areas.

## V. Evaluation

- A. Writing activities.** 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.
- B. Mini literature review.** Students will propose a basic study to test a research question. The proposal will be conducted in stages with two drafts submitted (and provided with feedback) before completion of the final draft. Details about the mini research proposal will be provided on the course website.
- C. Quizzes.** There will be 2-3 quizzes per unit. 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. Not performing well on the quizzes is a sign to seek help before an exam.
- D. Exams.** There will be two midterm exams and one cumulative final exam. Exams will be a mix of multiple choice and short-answer format. The due dates of the exams are firm - I will not change them on you at the last minute.
- E. Extra credit.** The results of psychological research are often reported in the news. Sometimes, news articles draw unwarranted inferences from that research. For extra credit, you may write an analysis of news coverage of psychology research. Details regarding what constitutes a successful analysis are on the course website. Each student may write up to four analyses worth up to 5 points each for a maximum of 20 points extra credit. You may *not* reuse your own work from another course. Analyses must be extra papers written independently and exclusively for this course.
- F. Late policy.** Course deadlines are arranged by course unit with most deadlines on Tuesdays, Thursdays, and Sundays at 10 pm (ET). Late quizzes and writing activities are not accepted (but we do drop the lowest

scoring two quizzes and the lowest scoring writing activity). Exams are open for (minimally) a 48 hour period, and late exams are not accepted. Late literature review drafts and final drafts receive a 20% penalty per day late; this amounts to a two letter grade penalty (a B paper earns a D).

**G. Point breakdown by category.**

ASSIGNMENT	POINTS	% OF TOTAL
Writing activities	7 * 15 = 105	21%
Sources + Outline	15	3%
Res proposal drafts	2 * 15 = 30	6%
Research proposal	40	8%
Quizzes	11 * 10 = 110	22%
Midterm exams (2x)	60 * 2 = 120	24%
Final exam	80	16%
Extra Credit	Up to 20 pts.	4%

**VI. Grading Scale**

GRADE	POINTS	PERCENT
A	463-500	93%-100%
A-	448-462	90%-92%
B+	433-447	87%-89%
B	413-432	83%-86%
B-	398-412	80%-82%
C+	383-397	77%-79%
C	363-382	73%-76%
C-	348-362	70%-72%
D+	333-347	67%-69%
D	298-332	60%-66%
F	<297	<60%

**THESE ARE FIRM CUT-OFFS.** I round up to the nearest percent (e.g., 86.5% rounds up to 87% and equals a B+, but 86.4% rounds down to 86% and equals a B). The point categories listed above reflect this rounding. DO NOT attempt to negotiate grades with me. It is your responsibility to make sure your grade ends up where you want it to be. I have provided ample extra credit opportunities for students who wish to improve their grades. Students who want to improve their *learning* (and therefore their grades) should see me *early* in the class for assistance. I will

not negotiate grades with you, but I will do everything in my power to help you put in the necessary work to be as successful as you desire.

### **VII. 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.

### **VIII. 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](#).

### **IX. 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.

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.

### X. Course Calendar

Unit	Date	Topics	Reading/Homework/Due
1	8/28 - 9/10	How science is done Thinking like a scientist Finding scientific journal articles Basics of APA style	Quiz 1, Quiz 2 Worksheet 1, Worksheet 2 Read: Morling Ch. 1, Ch. 2
2	9/11 - 9/24	Claims and validities Measurement Reading & understanding scientific journal articles Writing strong paragraphs	Quiz 3, Quiz 4 Worksheet 3, Worksheet 4 Read: Morling Ch. 3, Ch. 5, Article passages
<b>EXAM 1 (Due 9/26 - 10 pm)</b>			
3	9/25 - 10/15	Experimental designs Threats to internal validity Quasi-experiments Summarizing and critiquing scientific journal articles	Quiz 5, Quiz 6, Quiz 7 Critique 1, Critique 2, Proposal draft 1 Read: Morling Ch. 10, 11, and 13, Article 1, Article 2
4	10/16 - 11/5	Correlational studies Multivariable correlational studies Summarizing and critiquing scientific journal articles	Quiz 8 & Quiz 9, Quiz 10 Critique 3, Critique 4 Read: Morling Ch. 8-9 Article 3, Article 4
<b>EXAM 2 (Due 11/7 - 10 pm)</b>			
5	11/6 - 11/22	Frequency claims & surveys Sampling & external validity Synthesizing scientific journal articles	Quiz 11, Quiz 12 Proposal draft 2 Read: Morling Ch. 6-7
6	11/27 - 12/10	Research ethics Research credibility	Quiz 13, Quiz 14 Mini research proposal (due 12/8, 10 pm) Read: Morling Ch. 4, Ch. 14
Final	12/12	<b>CUMULATIVE FINAL EXAM (Due 12/12 - 10 pm)</b>	

### XI. Summary of Due Dates

<b>Topic</b>	<b>Assignment</b>	<b>Due Date</b>
<i>How science is done</i>	Quiz 1	8/31
<i>Finding scientific journal articles - Worksheet 1</i>	Writing 1	9/3
<i>Thinking like a scientist</i>	Quiz 2	9/7
<i>Basics of APA style - Worksheet 2</i>	Writing 2	9/10
<i>Claims and validities</i>	Quiz 3	9/14
<i>Reading and understanding scientific journal articles - Worksheet 3</i>	Writing 3	9/17
<i>Measurement</i>	Quiz 4	9/21
<i>Writing strong paragraphs - Worksheet 4</i>	Writing 4	9/24
	<b>Exam 1</b>	<b>9/26</b>
<i>Experimental designs</i>	Quiz 5	9/28
<i>Threats to internal validity</i>	Quiz 6	10/1
<i>Soares &amp; Storm (2020) - Critique 1</i>	Writing 5	10/5
<i>Quasi-experiments</i>	Quiz 7	10/8
<i>Research proposal draft 1</i>	Writing 6	10/12
<i>Dufner et al. (2020) - Critique 2</i>	Writing 7	10/15
<i>Correlational studies</i>	Quiz 8 & 9	10/19
<i>Moore et al. (2009) - Critique 3</i>	Writing 8	10/26
<i>Research proposal outline</i>	Writing 9	10/29
<i>Multivariable correlational studies</i>	Quiz 10	11/2
<i>Fraleley et al. (2012) - Critique 4</i>	Writing 10	11/5
	<b>Exam 2</b>	<b>11/7</b>



<i>Research proposal draft 2</i>	Writing 11	11/12
<i>Frequency claims and surveys</i>	Quiz 11	11/16
<i>Sampling and external validity</i>	Quiz 12	11/19
<i>Research proposal</i>	<b>Final Paper</b>	<b>11/30</b>
<i>Research ethics</i>	Quiz 13	12/3
<i>Research credibility</i>	Quiz 14	12/7
	<b>Final Exam</b>	<b>12/12</b>

**Due dates:** Something is due (quiz, worksheet, writing exercise) each Thursday and Sunday at 10 pm. The lowest scoring two quizzes are dropped. The lowest scoring worksheet or critique is dropped. Exams open at the conclusion of a unit and are due on the Tuesday indicated on the schedule at 10 pm.

#### **XI. 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 a variety of majors and disciplines. Consultants are trained to help writers brainstorm, organize, and/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 or assignment prompt all the way through drafting and finalizing their paper.

#### **XII. Library Services**

Each department has a designated librarian to support your research needs. Christy Malmsten is our liaison librarian for Psychology. Her email is [malmstec@gvsu.edu](mailto:malmstec@gvsu.edu), and she is available for in-person and online consultations. 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).