Grand Valley State University

Psychology 400: Advanced Research Methods in Psychology

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*These addresses are the same GVSU account, you may use either. During busier parts of the semester there *may* be delay between your email and my response. This delay should not be more than 5 days for any email with a regular title and not more than 48 hours for any email with "Important" in the title. If you find yourself waiting longer than the aforementioned times, please send me a quick reminder email to make sure it was received.

Course Location (Both Sections): 423 Eberhard Center **(Downtown Campus)**

Course Time:

 PSY 400 07: T/R 2:30 - 3:45 pm
 PSY 400 05: T/R 4:00 - 5:15 pm

Office Hours (via Zoom)

Wednesdays: 1:00 – 2:00 p.m.

By Appointment: Schedule alternate time by sending an email with several

alternative times

https://gvsu-edu.zoom.us/j/4490093421?pwd=dlA3dHVGTG0yVTloK1gwTmNyVHZnUT09

Course Description: Experimental and survey methods in psychology. Topics covered include philosophy of science; theory development; measurement; reliability and validity of methods; experimental, quasi-experimental, and survey research designs; biases in experimentation; univariate and multivariate data analysis; and research ethics.

Course 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.

Course Prerequisites: PSY 101, STA 215, WRT 150 and PSY 300. You may not take any of these prerequisite courses concurrently with PSY 400.

Top Hat Classroom and Text Book:

One difference with this section compared to some other PSY400 sections is that we will be using a multimedia textbook which *necessitates that you have a reliable, high-speed internet connection.* This format of text allows me more flexibility in selecting the content of your readings and to augment learning concepts with the use of videos and internet resources. One limitation of this format is that a physical copy of the text is not available.

Text Book:

Top Hat Classroom Access - One Semester **- $30**
(free if you've already purchased this for another course)
ISBN: 9780986615108

Research Methods in Psychological Science - **$45**
ISBN: 9781773300962
Join Code: 676671

If you have not already received a course invite by email, please email me for the link or contact Top Hat directly for assistance. support@tophat.com.

Supplemental Text:

American Psychological Association (2020). *Publication Manual of the American Psychological Association: the official guide to APA style.* (7th ed). Washington, DC: Author.

Copies are available in Pew, call number: BF76.7 .P83 2020

Research articles, supplemental readings and my lecture notes will be posted on Top Hat.

Grade Evaluation:

	Description	Weight
Research Topic Assignment	Reading/writing	5%
Top Hat Embedded Questions	Multiple Choice	5%
Effective Learning Methods	Bonus	3%
CITI Ethics Certification	Online Course	5%
Assessment 1	Multiple Choice/Short Answer	12%
Research Question, Design and Hypotheses	Proposal for research	10%
Research Presentation (Partner)	10-minute presentation summarizing and critiquing published psychological research in your chosen research area	10%
Lab 1	JAMOVI / Measures of Central Tendency	4%
Lab 2	Correlation / Regression	4%
Assessment 2	Multiple Choice/Short Answer	12%
Lab 3	T-Test / ANOVA	4%
Lab 4	Reliability / Data Reduction	4%
Final Research Paper	APA style research manuscript	25%

Final grades are determined after combining scores from the assignments, peer evaluation, class participation and the final exam. Students are ranked in order of total scores and a grade is assigned so that the class average falls between the 75th and 79th percentiles (Letter grade = B)

This is a *tentative* grade distribution

Rating	Letter Grade	Grade Point Value	Percentage Grades
Excellent	A	4.0	90-100%
Excellent	A-	3.7	85-89%
Good	B+	3.3	80-84%
Good	B	3.0	75-79%
Good	B-	2.7	70-74%
Satisfactory	C+	2.3	65-69%
Satisfactory	C	2.0	60-65%

Satisfactory	C-	1.7	55-59%
Poor	D+	1.3	50-54%
Minimal Pass	D	1.0	45-49%
Failure	F	0	0-44%

Missed Exam/Assignment:

Unfortunately, many of you do not have adequate health insurance. Because if this, I typically will not require a note from a health professional to document your absence. However, documentation is necessary if you miss more than one major assignment or exam, or in the case you miss the final exam. A registered health professional must provide the medical certificate, acknowledge the date of the missed exam/assignment, and provide his/her contact information. If you miss any class component, you must report your illness to me within 48 hours of the exam/assignment due date, however your documentation may be provided at a later date. If a single class component is missed, the student will be given an extension or have the weight of the missed examination/assignment added to the final examination.

Student Responsibilities:

ACADEMIC INTEGRITY: Grand Valley State University is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the *Code of Student Behaviour* (online at http://www.gvsu.edu/studentcode/ index.cfm) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University. No student shall represent another's substantial editorial or compositional assistance on an assignment as their own. Furthermore, no student shall submit in any course or program of study, without the written approval of the course instructor, all or a substantial portion of any academic writing, essay, thesis, research report, project assignment, presentation or poster for which credit has been obtained by the student or which has previously been or is being submitted by the student in another course or program of study in the University or elsewhere. All forms of dishonesty are unacceptable at the University. Cheating, plagiarism and misrepresentation of facts are serious offenses. Anyone who engages in these practices will receive a grade of zero for the exam or paper in question and no opportunity will be given to replace the grade or redistribute the weights. Any offense will be reported to the Dean of the CLAS who will determine the disciplinary action to be taken.

CELL PHONES: As long as you are not disruptive, feel free to use it.

SAFETY:

As per GVSU policy, proper mask use is required. Should you forget a mask for any of your classes, they will be freely available from any department office. Medical exceptions must be approved by Disability Student Services.

STUDENTS WITH DISABILITIES: If there is any student in this class who has special needs because of a learning, physical, or other disability, please contact me and Disability Support Resources (Room 200 STU; 616 331 2490). Furthermore, if you have a physical disability and think you will need assistance evacuating this classroom and/or building in an emergency, please make me aware so that I can develop a plan to assist you.

ACADEMIC SUPPORT CENTRE: Students who require additional help in developing strategies for better time management, study skills or examination skills should contact the Advising Resource Centre (200 STU).

WRITING CENTER: http://www.gvsu.edu/wc/
The writing center has a number of my ex-students who provide advice and support in scientific writing and composition of research reports. Please contact the writing center directly to make an appointment.

Disclaimer***PLEASE NOTE that updates to this schedule will be posted periodically throughout the semester. Check regularly for updates

January 11/13	
Topic	**Reading(s)**
Introduction What is Science?	Syllabus Top Hat: Module 1 Hergenhahn (2001)
January 18/20	
The Scientific Enterprise	Top Hat: Module 2
Ethics in Research	Top Hat: Module 4 Citi Training Module (Due January 27)
January 25/27	
Review of Measurement / Reliability Independent Groups / Repeated Measures	Top Hat: Module 7 Top Hat: Module 9 / 10
February 1/3	
Complex Experimental Design Interaction Activity	Top Hat: Module 11
February 8/10	

Quasi Experimental Designs Survey Methods	Top Hat: Module 13 Top Hat: Module 8
Research Topic Assignment Due: February 8	
Sampling Methods	Top Hat: Module 8
February 15/17	
Review Assessment 1	
February 22/24	
Experiment materials and Qualtrics programming Synthesizing, writing and presenting research	Gernsbacker (2017) Top Hat: Module 3
March 1/3	
Power Effect Sizes	TBA TBA
March 5-14 **Spring Break** Research Question, Design and Hypotheses (Group) Assignment (Due March 15)	
Graphing and Plotting Open Science / Replicability	TBA TBA
March 22-24	
Research Project Meetings	
March 29/31	
Research Project Meetings	
April 5/7	
Student Presentations	
April 5/7	

Student Presentations
April 12/14
Laboratory 1 – JAMOVI / Central Tendency / Reliability Laboratory 2 – Correlation / Regression
April 19/21
Laboratory 3 - T-Test / ANOVA Laboratory 4 – ANOVA / Exploratory Factor Analysis
April 26/28
Assessment 2 **PSY 400 05: April 26** @4:00 – 5:50 p.m. **PSY 400 07: April 28** @2:00 – 3:50 p.m. **Final Research Paper Due: April 29 at Midnight**