

PSYC 5301-002 Research Methods and Design
CRN 12532 W 2:00-4:45 PM
Fall 2025 | MADLA 237



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Course Description

From the catalog: Advanced research methodology for psychological research. Focuses on methods for use with experimental research design and nonexperimental research design (e.g., correlation and multiple regression). Measurement issues are covered, including reliability and validity. Computer lab uses statistical packages for analysis of data. A grade of 'B' or better is required. Prerequisites: none.

Required Course Materials

- *Textbook:* McBride, D. M. (2023) *Process of research in psychology (5th ed.)*. Thousand Oaks, CA: Sage. ISBN-10: 1071847473 ISBN-13: 978-1071847473

Contact Guidelines

I make every effort to be available to aid you in your learning process. There are a number of ways in which you can contact me.

- ***Email:*** Only use official university e-mail through Blackboard and include course and section (e.g., PSYC 2388) and full name in subject line. Failure to follow these steps will result in my not responding to your email. This is my primary and preferred point of contact outside of the classroom. I check my messages regularly on Monday – Friday from 8 to 5. Within that timeframe, I will generally respond within 24 hours. If you don't hear back from me, email again in the event your message went to my Junk email box. On weekends, I am generally not available by email and will reply on the subsequent Monday. If you need to contact me, plan ahead. In all communications, be specific. Your correspondence MUST include information as specified above. If you send an email without sufficient information, I likely won't reply. Additionally, begin a new email thread in lieu of responding back to one of my emails if you are beginning a new conversation unrelated to the previous email. Professional language and formatting is expected.
- ***Office:*** Meetings may be held in my office on campus, or via WebEx (see top of this sheet).

Learning Objectives and Class Structure

This course provides a graduate level overview of research methods in psychology. The specific learning objectives for this course are to: (a) familiarize you with advanced issues and topics related to psychological research methods. The readings from the textbook and our reading list, as well as classroom discussions, will focus on these issues and topics. (b) develop the student's ability to conduct meaningful psychological research. Writing a research proposal will give the student an opportunity to develop research skills. (c) develop the student's ability to evaluate psychological research methods and convey them to undergraduate audiences. (d) create an awareness of diversity issues in research. The focus of the formal discussion will be on the application of research principles to current areas of research in psychology.

Assessment and Evaluation

All work is to be completed independently unless indicated. Total points per semester will vary depending on enrollment. Late work will NOT be accepted and result in a zero. Academic dishonesty will not be tolerated and will be reported to the academic integrity office – it's much better to honestly fall short of expectations than to dishonestly try to meet them.

Practice Lectures – 25 points each

In the A part of every class, one student will present a prepared 50 minute lecture on that week's chapter from the text. You should tune your lecture so that it may be understood by undergraduates. Your lecture must align with the material as presented in the chapter for that week, but you are free to include your own illustrative examples, especially if they

were influential to your own understanding as an undergraduate. If appropriate, it is recommended you also include a brief interactive activity for the class (including your professor!) to enhance understanding. Your professor and peers will evaluate your teaching to provide you formative feedback.

Article Reaction Papers – 10 points each

Every week you will submit a two-page MAXIMUM single-spaced paper (double space between paragraphs), which will summarize each of the readings for the week, with at least one substantial paragraph per reading. These summaries will necessarily be selective, so you should describe what you think are the most important points made by each reading. You will also be asked to tie together concepts from each reading. Each summary paper must end with two discussion questions for the class meeting, and you will be expected to raise these questions, as appropriate, during class time. Thus, these summary papers will come to demonstrate your mastery of learning goals (1) and (3), and if you propose research studies based on those readings, learning goal (2) as well. Reaction papers are due in their appropriate Turn-It-In box every Wednesday by 6:00 AM the before before the articles are to be discussed. However, this is the only assignment where you get a “pass”- you can fail to submit one reaction paper and it will NOT count against you. I get it, life happens. You get busy, distracted, need to focus on something else, or you just plain forget. Use your single “pass” judiciously, or not at all.

Article Discussion Leadership – 25 points each

In the B part of every class, one student will lead discussion on that week’s assigned articles. Your discussion should begin with an in-depth summary (deeper than a reaction paper) followed by key discussion questions about the material that go deeper than “What did everyone think of the readings?”. Some questions should be factual, asking fellow students to summarize main point(s) of the reading. The others should be open-ended, asking students to share their interpretations and opinions of the reading. You will also give students opportunities to pose their own questions from their reaction papers. Your grade will be based on the effectiveness of your questions and presentation, with high scores earned for well thought-out discussion that leads students to understand key arguments and then push them to challenge those arguments. You’ll turn in your discussion questions and any outlines or summaries you use in the Turn-It-In box where you’d normally upload your reaction paper. Unlike reaction papers, you are not limited to two single-spaced pages.

Research Proposal Paper and Presentation – 50 points

All students will be required to complete a formal (APA style) written research proposal. The research proposal should present an original study designed to test a novel hypothesis derived from a traditional area in psychology. This does not need to relate to your eventual thesis or capstone project but it can be your first steps toward planning that project. However, you must conduct your review independently. The proposal should include: (a) an introduction that logically reviews the most relevant literature and derives a prediction from this literature, (b) a methods section that presents a reasonable procedure for testing the hypothesis, including power analysis to justify sample size, (c) an analytic plan accompanied by the hypothesized set of results, and (d) a discussion of the implications your hypothesized results have for the current literature at large, as well as strengths and weaknesses of your proposed study. The evaluation of the research proposal will be based upon the quality of the written proposal, the quality of the hypothesis, and the appropriateness of methods and analytic plan to test the hypothesis.

Course Schedule

Any topic changes will be announced by any one or a combination of lecture, e-mail and/or Blackboard. You are responsible to keep up with any possible changes to the course schedule. Final exam date will be announced during the Fall and Spring semesters, or will take place on the final day of class during Summer. Once announced, it will be listed at <https://www.tamusa.edu/academics/academic-calendar/index.html>

Week	Date	Topic	Readings	Presenter
1 (Aug 27)	A	<i>Introductions, assigning presentation and discussion dates</i>		
	B	(Fun activity TBD)		
2 (Sep 3)	A	Scientific Method	Chapter 1	Dr. Erickson
	B	<i>Cargo Cults, Bullshit, and Psychology's Slow Progress</i>	<i>Feynman (1974)</i> <i>Frankfurt (2005)</i> <i>Rakover (2020)</i>	Dr. Erickson
3 (Sep 10)	A	Hypothesis Development	Chapter 2	A Halperin
	B	<i>Philosophy of Science</i>	<i>Popper (1963)</i> <i>Kuhn (1974)</i> <i>Henley (1989)</i>	A Halperin
4 (Sep 17)	A	Ethics	Chapter 3	B Aguilar
	B	<i>Ethics Considerations</i>	<i>Spiegel & Keith-Spiegel (1970)</i> <i>Naufel & Beike (2013)</i> <i>Cockerton et al. (2024)</i>	D Venegas
5 (Sep 24)	A	Research Designs	Chapter 4	A Galvan
	B	<i>Constructs and Theory</i>	<i>Guthrie (1946)</i> <i>MacCorquodale & Meehl (1948)</i> <i>Baumeister et al. (2007)</i>	F Lawler
6 (Oct 1)	A	Variables and Validity	Chapter 5	M Solis
	B	<i>Constructs part deux</i>	<i>Cronbach & Meehl (1955)</i> <i>Cronbach (1957)</i>	G Cantu
7 (Oct 8)	A	Sampling	Chapter 6	G Cantu
	B	<i>Power... Unlimited POWER!!!</i> (Sub for Erickson TBA)	<i>Cohen (1992a)</i> <i>Hanel & Vione (2016)</i> <i>Brybaert (2019)</i>	B Aguilar
8 (Oct 15)	A	Statistics and NHST	Chapter 7	C Singer
	B	<i>Do our stats suck?</i>	<i>Rozeboom (1960)</i> <i>Meehl (1978)</i> <i>Cowles & Davis (1982)</i> <i>Simmons et al. (2011)</i>	C Singer
9 (Oct 22)	A	APA Style	Chapter 8	J Granados
	B	<i>Presenting Findings</i>	<i>Madigan, Johnson, & Linton (1995)</i> <i>Wilkinson et al. (1999)</i> <i>Makin et al. (2019)</i>	J Nichols

			Tufte (2006)	
10 (Oct 29)	A	Survey Research	Chapter 9	F Lawler
	B	Survey Items and Inference	Anastasi (1987) Kaiser & Oswald (2022) McManus et al (2023)	J Santillan Ibarra
11 (Nov 5)	A	Correlational Studies	Chapter 10	J Navarro Martinez
	B	Mediation, Moderation, and Inference	Baron & Kenny (1986) Bullock & Green (2021)	A Galvan
12 (Nov 12)	A	Experiments	Chapters 11-12	J Nichols
	B	Replication Crisis, pt. 1	OSC (2015) Fanelli (2018) Nosek et al., (2018)	J Navarro Martinez
13 (Nov 19)	A	Quasi-Experiments	Chapter 13	D Venegas
	B	Replication Crisis, pt. 2	Bogdan (2025) Nagy et al. (2025) Gandhi et al. (2024)	J Granados
14 (Nov 26)	A	***THANKSGIVING NO CLASS***	No class held or posted	
	B	***THANKSGIVING NO CLASS***	No class held or posted	
15 (Dec 3)	A	Specialized Designs	Chapter 14	J Snatillan-Ibarra
	B	Contrarian Views	Lilienfeld (2010) O'Donohue & Fisher (2022) Clark et al. (2023)	M Solis
16		Final Paper Due End-of-Day Wednesday 12/10		

Note: Additional “boilerplate” information about university policies can be found at <https://www.tamusa.edu/student-resources/academic-affairs/academic-planning/index.html>

Reading List References*

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***Note:** Entries highlighted in RED are from previous semesters.