Research Methods and Design I
PSY 390(4) 391(4): Section 2
Spring Semester 2020
Fall Semester 2020
M W F 10:55-12:05
Final Exam: W 4:30-630 (Colt Forum)
Location: T312

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Course Description
PSY 390: Students gain experience in methods of design, data collection, management, and analysis. Students begin a significant research project. This course must be taken in the semester immediately preceding PSY391. Prerequisite(s): PSY103 and MTH203 (may be taken concurrently or with the consent of instructor).

PSY 391: Study of design and of research in psychology and the use of statistics. Practice in the integration of design and statistics is included. Students finish a significant research project. This course must be taken in the semester immediately following PSY 390. Prerequisite(s): PSY 103 and PSY 390 or consent of instructor.

Course Learning Outcomes in PSY 390-391: Upon completion of this course you will be able to:

- Solve real-life, practical problems using psychological science and the scientific method.
- Understand and interpret statistical research findings that are presented in writing, in numerical form, or as tables or figures.
- Apply statistical concepts in clinical and non-clinical applications to optimize vocational performance. This includes being able to interpret clinical test scores, analyze business and financial performance, and empirically assess decision making outcomes.
- Critically evaluate research claims made by academics, business professionals, and media figures by formulating alternative hypotheses, generating alternative explanations, and designing follow-up and replication studies.
- Identify and remediate potential problems in empirical and non-empirical research. This includes recognition of incomplete literature reviews, design flaws, poorly formed hypotheses, ethics violations, incorrect statistical execution and inference, and unsupported conclusions.
- Write a research proposal and submit it to an institutional review board.
- Present the results of empirical research to professional and lay audiences using written, oral, and visual expression. This includes being able to write a research paper using APA style, construct a poster for a research conference, and present research in a brief oral presentation with visual aids.

Reading in PSY 390-391
Employers want employees who are good critical thinkers. According to Diane Halpern (2003), there are 4 aspects to critical thinking: (a) a critical thinking attitude, e.g., not accepting claims at face value; (b) the capacity to implement specific critical thinking skills, e.g., deductive reasoning, hypothesis testing, understanding probability; (c) the facility to apply these critical thinking skills to new situations; and (d) the skill to think about one's own thinking, or metacognition. We will use a significant portion of our class time for activities that will enhance your critical thinking skills. It is imperative that you read and study the reading assignment before coming to class.

Working in Teams in PSY 390-391
This course employs the Team Based Learning (TBL) method. "Team-Based Learning is an evidence based collaborative learning teaching strategy designed around units of instruction, known as "modules," that are taught in a three-step cycle: preparation [completing the assignment before class], in-class readiness assurance testing [RATs, basically quizzes on the assignment], and application-focused exercise [Team Application Exercises]." The fourth essential component of TBL is the Team Member Helpfulness Evaluation (both formative and summative).

Required Textbook
Mitchell, M. L., & Jolley, J. M. (2013). *Research design explained* (8th ed.). New York: Thomson-Wadsworth.

How Grades Will Be Earned (A = 93-100; A- = 90-92.99; B+ = 88-89.99; B = 84-87.99; B- = 80-83.99; C+ = 77-79.99; C = 70-76.99; C- = 65-69.99; D+ = 62-64.99; D = 55-61.99; D- = 50-54.99; F ≤ 49.99%)

	PSY390
15%	Readiness Assurance Tests (RATs)
15%	Team Application Exercises
5%	Team Member Helpfulness Evaluation (peer-graded)
40%	Tests1-4
15%	Homework
10%	IRB Proposal
Note:	Final Examination. Minus 10% in overall grade if not present

	PSY391
15%	Readiness Assurance Tests (RATs)
10%	Team Application Exercises
5%	Team Member Helpfulness Evaluation (peer-graded)
40%	Tests1-4
10%	Homework
20%	Paper
Note:	Final Examination. Minus 10% in overall grade if not present

Managing Your Life and This Course
If you cannot take a test due to extreme circumstances, please ask me for permission to take the test at another time before the exam.

Most people need to miss a class due to illness, flight delays, and so on. Therefore, a safety valve is built into the course. For the safety valve to become effective two conditions are met. First, cell phones are put away, and second, 90% of the class completes the IDEA course evaluation the first week it is posted.

Safety Valve: The four lowest Team Application Exercises, two lowest Homework scores, and two lowest RATs, will be dropped.

Academic Honesty
Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See Academic Policies for definitions of kinds of academic dishonesty and for further policy information.

Late Assignments
You can turn in a late assignment for up to seven days. The TA will deduct ten percent for lateness and ten percent each additional day the assignment is late.

Second Half of Syllabus Posted on Canvas
I am required to include additional material to the syllabus. This is posted in Canvas under Syllabus (Part II).

PSY390 Schedule

	MONDAY	WEDNESDAY	FRIDAY
W1	13-Jan	15-Jan	17-Jan
	Course Introduction Meet your professors	TEAM BASED LEARNING™ (TBL) Team formation Meet your teammates Present team name Team norms	Article Assignment: Bolte (first author) Article Application Exercises What is a Peer-Reviewed Journal Article? What is a Review Article?
W2	20-Jan	22-Jan	24-Jan
	Martin Luther King Jr. Day (No Classes) Chapter 1	Chapter 2	Article Assignment: Frederick Article Application Exercises
W3	27-Jan	29-Jan	31-Jan
	Chapter 3	Chapter 4	Article Assignment: Garcia & Carder Article Application Exercises Topic: What makes good research?
W4	3-Feb	5-Feb	7-Feb
	Chapter 5	INFORMATIONAL LITERACY Dr. Denise Nelson Chapter 6	Find an Article Assignment Article Application Exercises
W5	10-Feb	12-Feb	14-Feb
	INFORMATIONAL LITERACY Location: Hughes Computer Lab (Library) Dr. Denise Nelson Chapter 7a	Chapter 7b	Find an Article Assignment Article Application Exercises
W6	17-Feb	19-Feb	21-Feb
		Test 1	Find an Article Assignment
W7	24-Feb	26-Feb	28-Feb
	5 MC Questions/Answers on W's Readings - Due: TU Noon	RAT1: Ch 10a (pp. 279-292)	Presentation: Possible Team Research Projects
W8	2-Mar	4-Mar	6-Mar
	Application Exercises 5 MC Questions/Answers on W's Readings - Due: TU Noon	RAT2: Chapter 10b (pp. 292-317)	
SB	9-Mar	11-Mar	13-Mar
	Spring Break (No Class)	**Spring Break (No Class)**	**Spring Break (No Class)**

W9	16-Mar	18-Mar	20-Mar
	Application Exercises 5 MC Questions/Answers on W's Readings - Due: TU Noon	RAT3: Assigned PowerPoint on Canvas	Presentation: Possible Team Research Projects
W10	23-Mar	25-Mar	27-Mar
	Application Exercises	Test 3: Previous 3 RATs	Presentation: Team Research Project
W11	30-Mar	1-Apr	3-Apr
	Application Exercises 5 MC Questions/Answers on W's Readings - Due: TU Noon	RAT4: Ch11 and assigned PowerPoint on	Presentation: IRB Submission
W12	6-Apr	8-Apr	10-Apr
	Application Exercises 5 MC Questions/Answers on W's Readings - Due: TU Noon	RAT5: Ch12a (pp. 350-365)	**Easter Recess (No Class)**
W13	13-Apr	15-Apr	17-Apr
	Easter Recess (No Class) 5 MC Questions/Answers on W's Readings - Due: TU Noon	RAT6: Ch12b (pp. 365-380)	Due: IRB Rough Draft
W14	20-Apr	22-Apr	24-Apr
	Application Exercises	Test 4: RAT4, 5, and 6	Presentation: IRB Proposal
W15	27-Apr	29-Apr	1-May
	Application Exercises	Due: Final IRB	Due: IRB Submission
FW	4-May	6-May	8-May
		Final Exam (4:30p - 630p)	