PSYC 5301: Research Methods

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Contact info

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Course description

This course is designed to provide the student with a solid grounding in the techniques of experimentation and subsequent statistical modeling that form the empirical basis of modern psychological science. We will accomplish this through lectures, textbook reading, and several hands-on "laboratory" experiences, each designed to give the student a taste of the research process, including data collection, analysis, and reporting. All students enrolled in this course are required to have **previously taken** PSYC 5300 (Behavioral Statistics).

Course materials

- *The Design and Conduct of Meaningful Experiments Involving Human Participants: 25 Scientific Principles* by R. B. Bausell Amazon link
- *APA Publication Manual* (6th ed.) Amazon link
- JASP statistical software (free download from jasp-stats.org)

NEED TO UPDATE Student learning outcomes

1. Develop a research question and write hypotheses appropriate for it
2. Design and conduct a research project to test hypotheses
3. Analyze data collected from research using computer software
4. Communicate the findings of research as a complete APA style manuscript

NEED TO UPDATE Requirements and grading

- online quizzes
  - Quiz 1 - structure of scientific knowledge
  - Quiz 2 - APA style
  - Quiz 3 - Research ethics
  - Quiz 4 - Variables and measurement
  - Quiz 5 - Experimental control
- labs (100 points)
  - 5 labs at 20 points each
- IRB protocol
- class participation

Course Communication

I am your primary resource for this course. I AM an experimental psychologist, so I do the stuff I teach about daily. Hence, my primary interest is for you to learn this material and do well in the course. You may contact me using any means necessary (email and Twitter are the best). That being said, many people prefer to use Blackboard messages. I don't mind these, but keep in mind that I may not receive your message until I actually open Blackboard. With email/Twitter, if you send me a message at 9:00 pm, I may actually respond pretty quickly.

University Policy on "F" Grades

Beginning in Fall 2015, Tarleton will begin differentiating between a failed grade in a class because a student never attended (F0 grade), stopped attending at some point in the semester (FX grade), or because the student did not pass the course (F) but attended the entire semester. These grades will be noted on the official transcript. Stopping or never attending class can result in the student having to return aid monies received. For more information see the Tarleton Financial Aid website.

Academic Honesty

Cheating, plagiarism (submitting another person's materials or ideas as one's own), or doing work for another person who will receive academic credit are all disallowed. This includes the use of unauthorized books, notebooks, or other sources in order to secure of give help during an examination, the unauthorized copying of examinations, assignments, reports, or term papers, or the presentation of unacknowledged material as if it were the student's own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.

In particular, any exam taken online must be completed without the aid of any unauthorized resource (including using any search engine, Google, etc.). Authorized resources are limited only to the official textbook and any lecture notes from the course. Any other authorized resources will be provided to you before the exam. The minimum sanction for violation of this policy is a grade of 0 on the affected exam.

Academic Affairs Core Value Statements

Academic Integrity Statement

Tarleton State University's core values are integrity, leadership, tradition, civility, excellence, and service. Central to these values is integrity, which is maintaining a high standard of personal and scholarly conduct. Academic integrity represents the choice to uphold ethical responsibility for one's learning within the academic community, regardless of audience or situation.

Academic Civility Statement

Students are expected to interact with professors and peers in a respectful manner that enhances the learning environment. Professors may require a student who deviates from this expectation to leave the face-to-face (or virtual) classroom learning environment for that particular class session (and potentially subsequent class sessions) for a specific amount of time. In addition, the professor might consider the university disciplinary process (for Academic Affairs/Student Life) for egregious or continued disruptive behavior.

Academic Excellence Statement

Tarleton holds high expectations for students to assume responsibility for their own individual learning. Students are also expected to achieve academic excellence by:

- honoring Tarleton's core values, upholding high standards of habit and behavior.
- maintaining excellence through class attendance and punctuality, preparing for active participation in all learning experiences.
- putting forth their best individual effort.
- continually improving as independent learners.
- engaging in extracurricular opportunities that encourage personal and academic growth.
- reflecting critically upon feedback and applying these lessons to meet future challenges.

Students with Disabilities Policy

It is the policy of Tarleton State University to comply with the Americans with Disabilities Act and other applicable laws. If you are a student with a disability seeking accommodations for this course, please contact the Center for Access and Academic Testing, at 254.968.9400 or caat@tarleton.edu. The office is located in Math 201. More information can be found at www.tarleton.edu/caat or in the University Catalog.

Note: any changes to this syllabus will be communicated to you by the instructor!

Schedule of lectures

Week	Date	Topic
1	1/17	Lab: why randomization matters / Intro to JASP
3	1/31	Lab: independent groups experiment - theory and design
5	2/14	Lab: independent groups experiment - data analysis
7	2/28	Lab: repeated measures experiment - theory and design
9	3/21	Lab: repeated measures experiment - data analysis
11	4/4	Lab: factorial experiment (between-subjects)
13	4/18	Lab: factorial experiment - data analysis
15	5/2	Lab: factorial experiment with repeated measures