

SYLLABUS

Research Methods I

Psychology 202, Fall 2018
Lecture, TR 2:10–3:30 PM, TLC 108
Lab, W 2:00–4:00 PM, TLC 108

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Office Hours: by appointment via outlook.office.com
Class Website: teams.office.com
Tutor: TBA

Overview

Research Methods in Psychology I acts as an introduction to experimental and mathematical methods with a special emphasis on their use in modern psychology and neuroscience. We're going to make a 14-week charge through the things you need to know to make good decisions about various analytical methods used in Psychology. We'll also lay the foundation for writing about this stuff.

Objectives

Students who complete this class will have a broad but foundational understanding of experimental methods, structured scientific writing, and statistical analysis, specifically in the domains of psychology and neuroscience.

SPECIFICALLY

- Develop a broad critical understanding of important issues in experimentation and measurement.
- Develop a basic understanding of the methods currently in use, their advantages and failings.
- Learn to use modern statistical software to analyze data and experiment using modern methods.
- Learn the foundations of structured scientific writing.

ASSESSMENT

- Three Examinations.
- Three to Five Laboratory Projects.

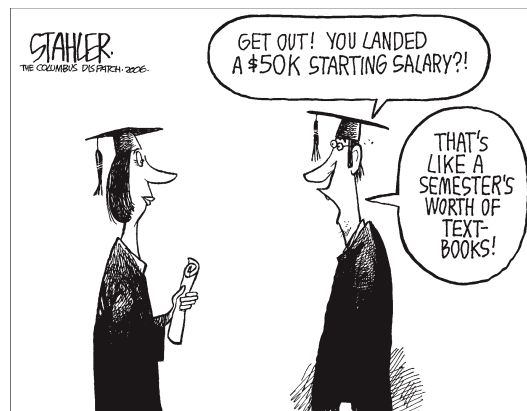
Materials

Basic Statistics, by Rand Wilcox, 2009, Oxford University Press. It is required, the majority of information on tests will come from it. There will be handouts and other supplemental materials, distributed in class and electronically.

A Concise Guide to Communication in Science and Engineering, by David Foster (not Wallace), 2018, Oxford University Press. This one is optional, but relatively inexpensive. I'll put some readings from it up on the class site, but you might want it as a reference for the future.

JASP, a 'fresh way to do statistics,' or, more importantly, an open source, free statistics package that is very modern and allows us to explore some up-and-coming statistical ideas. You can get it from <https://jasp-stats.org>.

MS Teams. Teams is a collaboration system that I like to use for classwork, communication, and sharing. It runs on everything, on the web, as an app, etc. Get started at <https://teams.microsoft.com>.



Schedule

Roughly- we'll go at it like this:

PART 1: Measurement and Data

How do we measure things? What are the characteristics of those measurements? How can we get meaningful information from these measurements?

- Quantities
- Description
- Distributions

PART 2: Methods of Experimentation

What makes a good experiment? What is a hypothesis? How can we communicate information about our findings to others?

- Hypothesis Testing and its Problems
- Designs
- Groups

Assessment and Grading

LABS: ($N = 3$ to 5) — 35%

EXAMS: ($N = 3$) — 60%

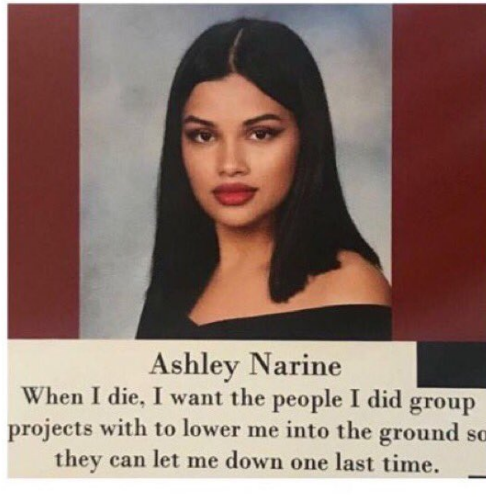
'PRESENCE': ($N = 1$) — 5%

EXAMS

Exams will take a variety of forms, including, but not limited to: multiple guess, essay, and short answer. If you are going to miss one, let me know. I reserve the right to deal with re-taking, re-scheduling, &c., at my discretion.

Material for the exams could *literally* come from anywhere! But, it is most *likely* to come from material covered in class. This material is, mostly, based on information from the book & other readings.

Exams will take place during weeks 5,10 & 15 (Finals week).



LABS / HOMEWORK

We will use *JASP* as well as other software for our homework and labs. These will take the form of problem sets, writing prompts, research tasks, and other things. Most will be solo, some *might* be group.

PARTICIPATION & PRESENCE

Participation can take many forms. Feel free to do so as you feel comfortable, but do participate.

Details

Honor Code: The Skidmore Honor Code is the main governing policy of this class. Learn it. Know it. Live it.

See <http://www.skidmore.edu/advising/integrity/index.php> for details.

Attendance: Show up. Miss more than 3 classes and I *reserve the right* to fail you. Miss the first day and I *reserve the right* to drop you from the class and admit someone on the wait-list. To be excused from an exam, except for sudden extreme illness, you must arrange with me at least 24 hours before the exam is scheduled. Anyone missing an exam who has not been excused will receive a o. Make-up exams must be scheduled within the week following the exam.

Lateness: Work presented late and *without prior notice* will receive a o.

Extra Credit: There is no such thing as 'extra credit.'

Plagiarism: *Any* act of plagiarism will result in a failing grade for the course and whatever procedures / processes I am obligated to undertake on behalf of the department & college. I take this pretty seriously. If you're not sure if something is plagiarism, ask.

ADA: Services and accommodations are available to students covered under the Americans with Disabilities Act. If you have any visual, perceptual, or physical challenges that might result in the need for some form of accommodation I am more than willing to help you help yourself. Contact me and/or Student Academic Services at http://www.skidmore.edu/academic_services for assistance.

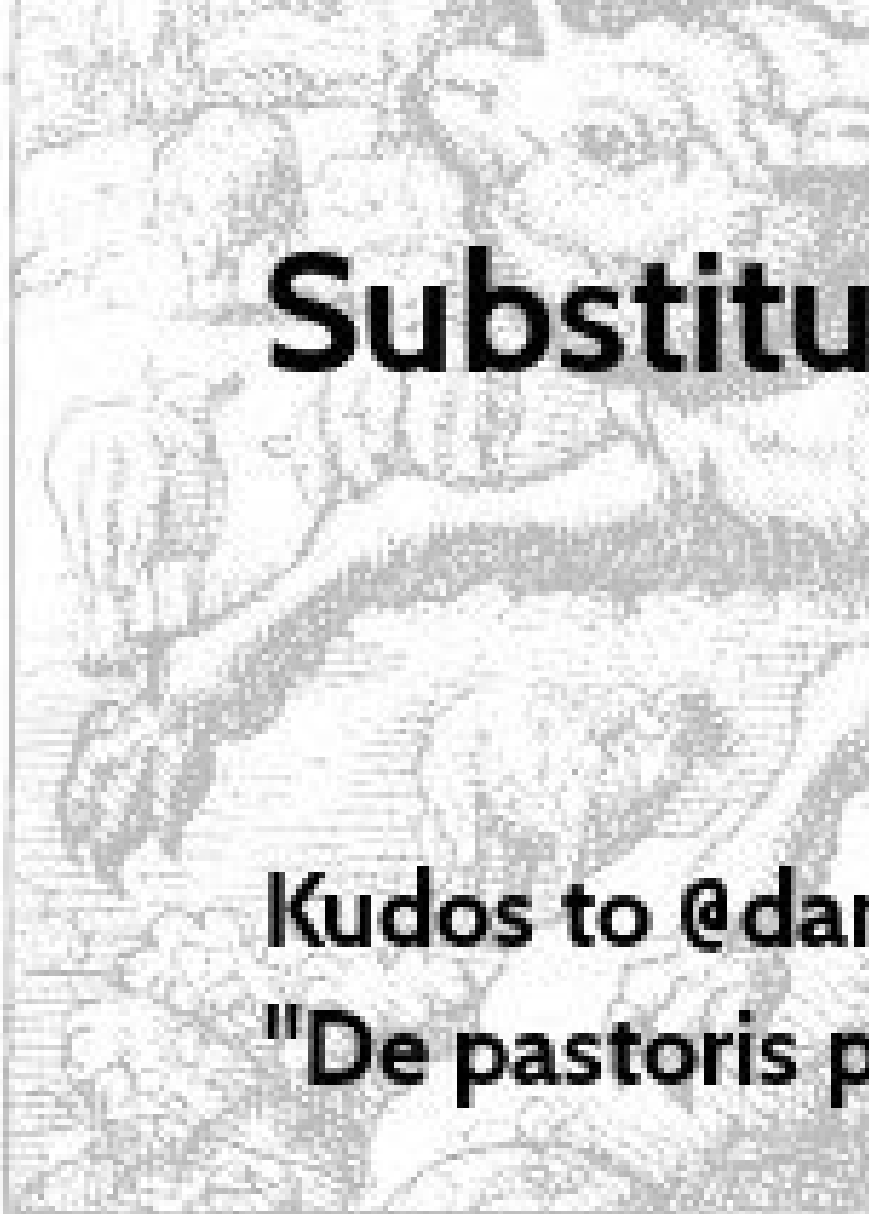
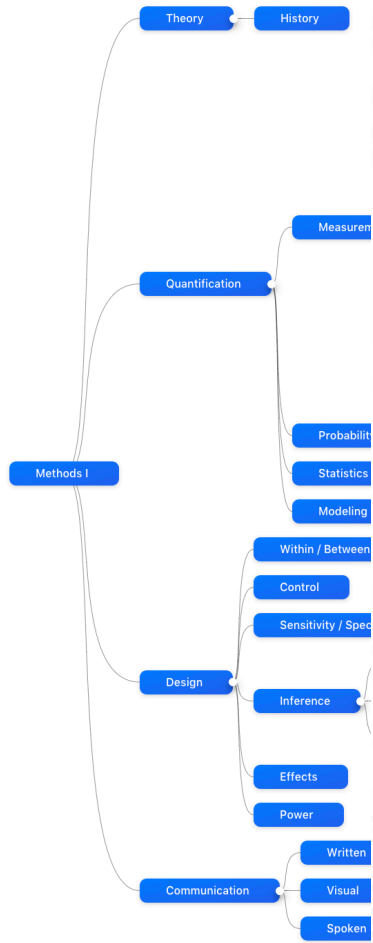
Slack: All that harsh stuff being said — generous swaths of slack shall be cut to those who exhibit respect for the learning process and the class in general. Please don't abuse this tolerance.

Changes: This document subject to random changes via *vis major* or at my discretion.

In this class, you could be exposed, at any moment, *and without warning of its imminence* to: ideas, comments, imagery, sounds, feelings, readings, equations, graphs, data, people, and other things that you may find: shocking, offensive, absurd, annoying, racist, sexist, homophobic, discriminatory, or generally obnoxious.

This is called 'education.'

— AFTER J RAUCH



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