

PSYCHOLOGY 495R/695R: INDEPENDENT READINGS

Winter 2018—Psych 495R Section 001; Psych 695R Section 004

Mondays from 1pm to 3:30pm

Room: Richards Building (RB) Room 221A Conference Room

Instructor: Michael J. Larson, Ph.D.

Email: michael_larson@byu.edu

Office: 244 TLRB, (801) 422-6125

Office Hours: Mondays 10am to 11am

Required Text(s):

--*The 7 Deadly Sins of Psychology: A Manifesto for Reforming the Culture of Scientific Practice* by Chris Chambers. Princeton University Press, 2017.

--Assigned readings (see schedule at the end of the syllabus)

Learning Outcomes:

1. Demonstrate an in-depth scholarly grasp of the topic

The student will demonstrate an in-depth, scholarly grasp of the topic of the readings.

Measurement: Summary paper

2. Demonstrate mastery of a topic area of psychology research

Student(s) will demonstrate mastery of a topic area of psychological research, obtained by their own independent scholarly work.

Measurement: Student mastery of the research area will be assessed from a paper prepared by the end of the semester.

As you can see from the learning outcomes, you will develop an in-depth mastery of a topic in psychology. The topic for our readings course will be rigor, replication, and openness in research—both psychological research and research in general. The course will culminate with a p-curve or similar paper (see below) on a literature of your choice to explore in-depth the idea(s) of publication bias and researcher degrees of freedom that are hampering replication efforts in psychology. We will use Chris Chamber's book listed above as the primary text. This text will be supplemented by up-to-date readings in the literature. You will be expected to lead multiple discussions on the chapters/papers of interest and contribute to the learning and discussion taking place each week.

Course Requirements:

Class Preparation: I expect that you will read the material, as listed in the course schedule *prior to class*. This is expected for a readings course so you will better understand the topic and in order for us to have more productive discussions in class. Reading before class will also help you better understand and retain the material. If you need to miss class, simply let me know and we can work something out.

Class Attendance: As with class preparation, attendance is critical for this course to be successful. I expect you to be present each week, but understand there will be periodic absences. Please inform me beforehand if you will miss a class. *You will be docked 10 points from the 100 points possible for attendance after your second absence.* Please work with me if you have issues or difficulties with attendance.

Leading the Discussion: Each student will be expected to lead the discussion for three of the class periods during the semester. Leading the discussion does NOT mean you need to bring a PowerPoint or similar presentation. Rather, you will be in charge of getting the discussion going and having key talking points on the readings for that day. Each of your three days is worth 33.33 points, for a total of

100 points for leading the discussions. We will determine who will lead which articles on the first day of class.

Culminating Paper: The culmination of this course will be a publication-ready review paper on an area of interest in the psychology literature. Students will complete a p-curve paper (preferably working together with other members of the course; see www.p-curve.com). However, a critical review of an area of research focusing on sample size, transparency, openness, etc. would also be acceptable. There are no page limits or strict guidelines *per se* for the paper. Rather, it is expected that you will complete a publication-worthy paper that will be submitted at or near the end of the semester. We will have deadlines for the different aspects of the paper (e.g., literature review, introduction, method, results, discussion, etc.) throughout the semester to keep the paper on track and so the paper isn't put off until the end of the semester. As the goal of this course is competence and learning, rather than a grade, I will provide feedback and mentoring throughout the process. I will grade assignments similar to a submission of a manuscript to a scientific journal. Specifically, if you complete the assignments well, show competence in the skills associated with the assignment, and have no glaring holes/mistakes your work will receive an “Accept” designation and no additional work is required. If it has minor difficulties or there is some minor lack of understanding or competence you will receive a “Minor Revisions” designation wherein you will make the minor changes/improve the skills and resubmit. If there are large difficulties or problems with understanding/competence, you will receive a “Major Revisions” designation on the assignment. The Major Revisions designation means you have a relatively large amount of work to do to show competence on the assignment. I expect with Major and Minor Revisions that you will return the revision within two weeks of receiving the feedback. All assignments are expected to ultimately be “Accepted” prior to the end of the semester so we can submit the paper for publication. I reserve the right to decrease your grade for each outstanding assignment at the end of the semester. ***I am super excited about these papers and am hopeful they lead to a publication for each student. Authorship order will be determined at the paper outset to avoid awkward situations later.***
Note: paper aspects are due by midnight on the day of the deadline.

Grading Policy:

	Points Possible	% of Grade
Class Attendance	100	33.33%
Discussion Leading (3 days per person)	100	33.33%
Culminating Paper	100	33.33%
CLASS TOTALS	300 Total Points	100% Total

A	93.0-100%	C	73.0-77.9%
A-	90.0-92.9%	C-	70.0-72.9%
B+	88.0-89.9%	D+	68.0-69.9%
B	83.0-87.9%	D	63.0-67.9%
B-	80.0-82.9%	D-	60.0-62.9%
C+	78.0-79.9%	E	59.9 & < %

BYU Honor Code:

In keeping with the principles of the BYU Honor Code, students are expected to be honest in all of their academic work. Academic honesty means, most fundamentally, that any work you present as your own must in fact be your own work and not that of another. Violations of this principle may result in a failing grade in the course and additional disciplinary action by the university. Students are also expected to adhere to the Dress and Grooming Standards. Adherence demonstrates respect for yourself and others and ensures an effective learning and working environment. It is the university's expectation, and every

instructor's expectation in class, that each student will abide by all Honor Code standards. Please call the Honor Code Office at 422-2847 if you have questions about those standards.

Preventing and Responding to Sexual Misconduct:

In accordance with Title IX of the Education Amendments of 1972, Brigham Young University prohibits unlawful sex discrimination against any participant in its education programs or activities. The university also prohibits sexual harassment-including sexual violence-committed by or against students, university employees, and visitors to campus. As outlined in university policy, sexual harassment, dating violence, domestic violence, sexual assault, and stalking are considered forms of "Sexual Misconduct" prohibited by the university.

University policy requires all university employees in a teaching, managerial, or supervisory role to report all incidents of Sexual Misconduct that come to their attention in any way, including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Incidents of Sexual Misconduct should be reported to the Title IX Coordinator at t9coordinator@byu.edu or (801) 422-8692. Reports may also be submitted through EthicsPoint at <https://titleix.byu.edu/report> or 1-888-238-1062 (24-hours a day).

BYU offers confidential resources for those affected by Sexual Misconduct, including the university's Victim Advocate, as well as a number of non-confidential resources and services that may be helpful. Additional information about Title IX, the university's Sexual Misconduct Policy, reporting requirements, and resources can be found at <http://titleix.byu.edu> or by contacting the university's Title IX Coordinator.

Students with Disabilities:

Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability which may impair your ability to complete this course successfully, please contact the University Accessibility Center (UAC), 2170 WSC or 422-2767. Reasonable academic accommodations are reviewed for all students who have qualified, documented disabilities. The UAC can also assess students for learning, attention, and emotional concerns. Services are coordinated with the student and instructor by the UAC. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures by contacting the Equal Employment Office at 422-5895, D-285 ASB.

Mental Health:

Mental health concerns and stressful life events can affect students' academic performance and quality of life. BYU Counseling and Psychological Services (CAPS, 1500 WSC, 801-422-3035, caps.byu.edu) provides individual, couples, and group counseling, as well as stress management services. These services are confidential and are provided by the university at no cost for full-time students. For general information please visit <https://caps.byu.edu>; for more immediate concerns please visit <http://help.byu.edu>.

Disclaimer(s):

First, I must give credit to Dr. Lorne Campbell at the University of Western Ontario and Dr. Alison Ledgerwood at UC Davis for posting open syllabi on this topic that I borrowed liberally from for the readings, topics, etc. Next, Dr. Larson reserves the right to make changes in (a) the course schedule, (b) course requirements, (c) the course grading procedures, and/or any other aspects of the course at any time. Any alterations will be circumspect and will be made in the best interests of the students, the course, and the professor.

Date	Topic	Readings Due	Assignments
01/08	-Syllabus -Introduction to the Replication Crisis	-Chambers Chapter 1 -Ioannidis, 2005 -Open Science Collaboration, 2015 -Gilbert et al., 2016 comment	
01/15	No Class: MLK Day	No Class	No Class
01/22	-What is a p-curve? -Why we care about the p-curve -How to conduct p-curve analyses? -Evaluating p-curve analyses	-Simonsohn, Nelson, & Simmons, 2014a -Simonsohn, Nelson, & Simmons, 2014b -Simonsohn, Simmons, & Nelson, 2015 -P-curve User's Guide http://datacolada.org/66	
01/29	-Why Science needs to be open and reproducible (the p-hacking day)	-Chambers Chapter 2 -Simmons et al., 2011 -Nuijten et al., 2016 http://www.flexiblemeasures.com/nogo/shinyapps.org/apps/p-hacker/	Outline, Search Terms, and Study Selection Rules Due
02/05	No Class: Clinical Psych Interview Day	No Reading	No Class
02/12	-Replication: Why and how	-Chambers Chapter 3 -Makel et al., 2012 -Brandt et al., 2014 -Conceptual Replication Posts	Preregistration in OSF First Draft due
02/19	No Class: President's Day	Class on Tuesday	Class on Tuesday
02/20	<i>THIS IS A TUESDAY! There is class.</i> -Data openness and transparency: How will this help?	-Chambers Chapter 4 -Campbell et al., 2014 -Gelman & Geurts, 2017	
02/26	-Fraud and p-values: What are we going to do?	-Chambers Chapter 5 -Benjamin et al., 2017 -Read some of the Brains Blog Roundtable responses (there are several, all interesting) -Alpha wars post -What would Cohen say? post -Bayesian thoughts on $p < .005$ post	Introduction Due
03/05	-One major problem: Power & sample sizes	-Button et al., 2013 -Nord et al., 2017 -Maxwell, 2004 -Lakens blog post	
03/12	-Power & sample size part two: What do we do about it?	-Perugini et al., 2014 -Lakens et al., pre-print -Albers & Lakens, 2017 -Larson & Carbine, 2017 (skim)	Intro and Method Due
03/19	-Publication bias, open access, and grants: How are these related?	-Chambers Chapter 6 -Inzlicht et al., 2015 -Lilienfield, 2017 -Slate article on cancer/biomedical research	
03/26	-The problem of incentives: How can we shift the incentives around?	-Chambers Chapter 7 -Maner, 2014 -Pickett, pre-print	Intro, Method, Results Due

04/02	Alright, we've talked about lots of problems. How do we fix them?	-Chambers Chapter 8 -Miller & Ulrich, 2016 -Stanley & Spence, 2014	
04/09	Registered reports, pre-registration, and other ways to replicate	-Mathot, 2013 post -Nosek et al., pre-print -Sagarin, 2014 -Anderson & Maxwell, 2016	Intro, Method, Results, Discussion First Draft Due
04/16	-Revisiting the replication crisis after a semester of reading about it: Increased rigor, openness, and transparency?	-Finkel et al., 2017 -Munafò et al., 2017 -Baldwin, 2017 -Revisit Gelman & Geurts, 2017, from a neuro perspective	
04/23	<i>No Class (finals week), but...</i>	<i>No Reading, but...</i>	<i>Final full paper due by Midnight</i>