

Experiment Analysis and Design in Affective Science (PSY CL)

Spring 2023 Syllabus

Justin Dainer-Best

Course Number	Time	Location	Office Hours
PSY CL	Th, 13:30-15:30	RKC 100	Th, 12-13:30

[Make an appointment to come to my office hours.](#)

This course does not fulfill distributional requirements. It is worth 2 credit hours.

Wherever possible, I hope to work to make this course accessible and approachable for all students. For more information on accessibility for this course, please view [the section on that subject](#) below.

Overview

In this course, students will participate in laboratory research related to clinical psychology. The course is intended as part *two* of a two-part sequence. Over the two semesters of this course, we will expand on psychological theories, design behavioral tasks to test them, collect data from human participants using those tasks, and analyze the resulting data. Research foundations will connect to clinical psychology and the relationship between mood and cognition. Weekly meetings will involve discussion of empirical articles and practice/instruction in programming.

The first semester will focus on experiment design and data collection using online tools. The second semester will focus on data analysis using R and jamovi. Class assignments will involve implementation of tasks, discussion and analysis of empirical articles, and presentation of proposals. A final presentation will cap each semester.

Specifically, I encourage students in this class to work on projects relevant to understanding the relationship between mood and cognition. Students will take turns presenting relevant empirical articles.

The research discussed in this course may cover topics that are sensitive or personal for many students. If something discussed in class leaves you feeling upset, please speak to a trusted person about your experience. Further, if you find that you are struggling to cope with some of the topics discussed in class, you may contact [Bard Counseling Services](#), and [make an appointment](#); you may also email counselingservice@bard.edu or call 845-758-7433.

In the spirit of truth and equity, it is with gratitude and humility that we acknowledge that this class will take place on the sacred homelands of the Munsee and Muhheaconneok people, who are the original stewards of this land. Today, due to forced removal, the community resides in Northeast Wisconsin and is known as the [Stockbridge-Munsee Community](#). We honor and pay respect to their ancestors past and present, as well as to future generations and we recognize their continuing presence in their homelands. We understand that our acknowledgment requires those of us who are settlers to recognize our own place in and responsibilities towards addressing inequity, and that this ongoing and challenging work requires that we commit to real engagement with the Munsee and Mohican communities to build an inclusive and equitable space for all.

Objectives

By the end of the course you should...

- Become familiar with the terminology, methodology, and past research relating to mood and anxiety in clinical research
- Learn to create, run, and analyze experiments relating to mental health, including developing skills in several computerized systems
- Learn to use R, jamovi, JavaScript, and other programming languages
- Learn to collaborate using GitHub
- Learn to communicate the results of a research question
- Effectively participate in team-based psychological science

Instructor

The instructor for this course is Assistant Professor of Psychology Justin Dainer-Best (he/him).

Materials

There are no required materials for this course. There are few required *readings* for this course; you will choose empirical articles for most weeks.

Class Policies

Attendance

We will move at a rapid pace; material that is missed due to absence will not be repeated in class or office hours. Our classes are designed as interactive, and your absence will impact both your own understanding and the class or your group. Missing multiple days, especially in a once-weekly class, may impact your grade unless we have discussed this in advance.

However, this is a college class and you are an adult; your attendance is your decision. Late arrivals can be disruptive to the class. Consistent patterns of lateness are unfair to other students. Please be on time.

If you are not feeling well, please do not come to class.

Masks

I ask that we all come to class masked and remain masked throughout the class. We will discuss masking as a class and come to an agreement on whether we will continue masked as a class throughout the semester, with the understanding that the safety of the community requires all of to prioritize one another, and disabled individuals may need others to mask for their safety. Given the close quarters of the lab, we may choose to wear masks throughout the semester.

If you have recently been ill, please wear a mask when you attend; masks are effective at reducing spread of many respiratory illnesses. Each of us shares responsibility for the health and safety of all in the classroom.

Accommodations & Accessibility

Bard College is committed to providing equal access to all students. If you anticipate issues related to the format or requirements of this course, please contact me so that we can arrange to discuss. I would like us to discuss ways to ensure your full participation in the course. Together we can plan how best to support your learning and coordinate your accommodations. Students who have already been approved to receive academic accommodations through disability services should share their accommodation letter with me and make arrangements to meet as soon as possible.

If you have a learning difference or disability that may relate to your ability to fully participate in this class, but have not yet met with the Disability Support Coordinator at Bard, you can contact their office through <https://www.bard.edu/accessibility/students/>; the Coordinator will confidentially discuss the process to establish reasonable accommodations.

I am available for meetings online as well as those in person.

Diversity, Equity, & Inclusion

It is important to me that this course provides an open and supportive learning environment for all students. I invite you to speak with me if you have concerns or questions regarding issues of belonging, safety, or equity in the classroom. I want our discussions to be respectful of all students. If I am not helping the classroom to feel like an inclusive environment, I invite you to provide me with (anonymous) feedback. Depression and clinical experiences are topics about which many people have ideas or beliefs—all forms of knowledge are valuable and respect for all viewpoints is extremely important.

Plagiarism and Academic Integrity

I expect you to be familiar with what plagiarism is and is not. You may not present someone else's work as your own without proper citation. You may not copy someone else's work. You may not simply reword text from another source without giving credit. Please cite others' work where relevant, and use your own writing. If you are not sure about the definition of plagiarism, or whether something constitutes plagiarism, please consult with me or with someone at Bard's [Learning Commons](#). Students caught plagiarizing will be reported to the Academic Judiciary Board, will get no credit for the assignment, and may fail the course.

I operate from the standpoint that you are interested in learning this material, and are doing your best to operate with integrity.

Late Assignments

There are no late assignments in this course—with the exception of your need to complete all assignments by the last day of the semester. On days when you are called upon to present, you should plan to be prepared.

Grades

Many aspects of this class will be graded on a pass/fail basis. However, I recognize that you may not wish to take this class as a P/D/F class—and as such, there are some assignments that will be graded. The [final poster](#) will receive a grade (out of 40). Other assignments will receive points if completed adequately. All assignments are due by the end of the semester.

Assignment	Points
Short presentation	10
Leading discussion	20
Code review	10
Participation	20
Final poster	40
Total	100

Assignments

Article Discussion

Once during the semester, you will choose an empirical article (published after 2012; no longer than 15 pages in article format) on a particular area relating to adult mood, depression, or anxiety. This article may be specific to the cognitive symptoms of depression and anxiety, including relating to rumination, worthlessness, or hopelessness; it may also related to self-schema or the cognitive biases of depression. The article should come from a peer-reviewed academic journal, and I would suggest one of the following: *Cognition and Emotion*; *Behaviour Research and Therapy*; *Psychological Science*; *Clinical Psychological Science*; *Biological Psychiatry*; *Journal of Consulting and Clinical Psychology*; *Perspectives on Psychological Science*; *Behavior Therapy*; and *Journal of Abnormal Psychology*. You may also find articles by searching through Pubmed or Google Scholar. Your goal is to find an article that interests you and is relevant to the topics we have been discussing.

Your goal is to lead a discussion for your classmates on the topic. We will all find articles in the first two weeks of the semester and [schedule](#) them throughout the remainder of the semester.

This assignment is P/F: if you complete it, you will receive full points.

Code Review

You will, on 2–3 days of class, submit code (and/or writing) discussing what you’ve tried and/or accomplished to answer the exercises posed for that day’s class. Code may be turned in as PDF, R file, or other format – so long as it includes both code and your discussion of what it’s doing (and what the results look like).

Participation

Participating in class involves being present, asking questions during article discussions, and contributing to collaborative projects.

Short presentations

You will present for 3+ minutes on a stage of analysis of the ongoing research project, discussing the conclusions we’ve reached thus far and proposing next steps. Presentations will begin three classes as we analyze the data, and will be graded on completion.

Poster

We will design and build a poster together to report the results of our study. Your poster will be graded collaboratively and we will develop a rubric together.

Schedule

Day	Date	Topic	Article	Due
Thursday	Feb 2	Experiment analysis and design in affective science	Syllabus	
Thursday	Feb 9	Intro to GitHub; playing with R	Williams et al. (2022)	JDB
Thursday	Feb 16	Types of statistical tests; running basic tests in Jamovi (and R)	Article discussion	code (after class)
Thursday	Feb 23	Repeated measures ANOVA in R (and Jamovi)	Philippot et al. (2022) discussion	GT
Thursday	Mar 2	Visualizations in ggplot2 and Jamovi	Zvolensky et al. (2022) discussion	MD
Thursday	Mar 9	Code practice / analyses		code (after class)
Thursday	Mar 16	Data cleaning	Jones et al. (2022) discussion	DDM
Thursday	Mar 23	<i>Spring break</i>	<i>no class</i>	
Thursday	Mar 30	Catch up, check-in	Okwumabua et al. (2003) discussion	NH
Thursday	Apr 6	ggplot2 part 2	Napierała et al. (2019) discussion	LM
Thursday	Apr 13	Results analysis, 1: cleaning and prep	Pluhar et al. (2019) discussion	KK
Thursday	Apr 20	Results analysis part 2: visualization and analysis		short presentations 1
Thursday	Apr 27	Results analysis part 3: writing and additions		short presentations 2
Thursday	May 4	Poster workshop		short presentations 3
Thursday	May 11	Board week: present posters		
Thursday	May 18	<i>Completion week</i>	<i>no class</i>	

References

- Jones, A., Hook, M., Podduturi, P., McKeen, H., Beitzell, E., & Liss, M. (2022). Mindfulness as a mediator in the relationship between social media engagement and depression in young adults. *Personality and Individual Differences, 185*, 111284. <https://doi.org/10.1016/j.paid.2021.111284> (cit. on p. 6).
- Napierala, M., Bodnar, A., Chlopocka-Wozniak, M., Permoda-Osip, A., & Rybakowski, J. (2019). Electroconvulsive therapy and autobiographical memory in patients with treatment-resistant depression. *Psychiatria Polska, 53*(3), 589–597. <https://doi.org/10.12740/pp/85787> (cit. on p. 6).
- Okwumabua, J. O., Wong, S. P., & Duryea, E. J. (2003). Depressive symptoms and decision making among african american youth. *Journal of Adolescent Research, 18*(5), 436–453. <https://doi.org/10.1177/0743558403255062> (cit. on p. 6).
- Philippot, A., Dubois, V., Lambrechts, K., Grogna, D., Robert, A., Jonckheer, U., Chakib, W., Beine, A., Bleyenheuft, Y., & Volder, A. G. D. (2022). Impact of physical exercise on depression and anxiety in adolescent inpatients: A randomized controlled trial. *Journal of Affective Disorders, 301*, 145–153. <https://doi.org/10.1016/j.jad.2022.01.011> (cit. on p. 6).
- Pluhar, E., McCracken, C., Griffith, K. L., Christino, M. A., Sugimoto, D., & Meehan III, W. P. (2019). Team sport athletes may be less likely to suffer anxiety or depression than individual sport athletes. *Journal of Sports Science and Medicine, 18*, 490–496 (cit. on p. 6).
- Williams, K., Snytte, J., & Sheldon, S. (2022). Individual differences in depression are reflected in negative self-evaluations when imagining future events. *Journal of Behavioral and Cognitive Therapy, 32*(3), 207–221. <https://doi.org/10.1016/j.jbct.2022.02.002> (cit. on p. 6).
- Zvolensky, M. J., Shepherd, J. M., Clausen, B. K., Garey, L., Redmond, B. Y., Brown, R. A., Bogiaizian, D., Salazar, P. L., & Viana, A. G. (2022). Anxiety-related constructs and smoking outcome expectancies among latinx smokers. *Experimental and Clinical Psychopharmacology*. <https://doi.org/10.1037/pha0000625> (cit. on p. 6).