

Psyc 200: Research Methods & Statistics

Fall 2024

Tu/Th 10:00-11:25AM

Professor: **Laura Been, PhD**
Pronouns: she/her/hers
Please feel free to call me “Laura,” “Professor Been,” or “Dr. Been.”
Contact: lbeen@haverford.edu

Office hours: By Appointment on Wednesdays
(<https://calendar.app.google/gotA1u83b42XfVDb7> or
email me to schedule)
Office: KINSC Sharpless 408 or via Zoom

When: **Lecture:** Tu/Th 10:00-11:25am, Hilles 109

Labs: Tuesday, 11:30am-12:55pm Hilles 12 *or*
Tuesday, 2:30pm-3:55pm Hilles 12

Labs are taught by **Mikayla Carson, MS** and there will be a separate lab syllabus that you will receive from her. **Please attend only the lab you registered for.**

TA: **Ishita Jain** (HC '26)
Pronouns: she/her/hers
Please feel free to call me “Ishita.”
Contact: ijain@haverford.edu
Drop-In Question hours: Mondays 7-8:30pm in the Psych Lounge (4th floor Sharpless), or by appointment (email me to schedule!)
Office: Psych Lounge (4th floor Sharpless) or via Zoom

Textbook: Pelham, B.W., & Blanton, H. (2019). Conducting research in psychology: measuring the weight of smoke (5th edition). Rental ~\$18 / eBook ~\$45 / Paperback: ~\$65
If you can find older editions for cheaper, that is fine! This text is also available on reserve in the Science Library.

Other Readings: *Please note that many of the course readings come from [“Concepts and Applications of Inferential Statistics”](#), which is a free online stats textbook via VassarStats, or [“Online Statistics Education.”](#) which is a free online stats book via Rice University. Links for these free online statistics resources are provided via Moodle.*

Course description and Learning Objectives: This course serves as an introduction to research methods in Psychology coupled with an in-depth treatment of statistics as applied to psychological research. Statistical topics include principles of probability, central tendency, variability, hypothesis testing, and statistical inference. Lab exercises focus on designing studies, collecting data, applying statistical methods (using Jamovi software), and presenting data through various written assignments.

After finishing the course, students should be able to:

- think critically about psychological research methods
- understand statistical tests frequently employed in psychological research and when/how to use them
- use software (Jamovi) to run these tests
- design psychological studies
- communicate research findings using APA style

Expectations and Commitments: We are still living through a global pandemic, a heightened collective awareness of racial injustice, and a deeply divided political climate. I will teach from a place of compassion as we navigate these unprecedented challenges together. I will be flexible and generous with deadlines. I will be understanding of unforeseen circumstances. I will pivot as necessary. I hope you will extend the same grace to me. My ultimate goal is to create a learning community that is inclusive, equitable, and conducive to learning for each student in this course, as well as sensitive to the specific, unique, and unpredictable challenges we will encounter this term.

Missed Classes Policy: If you have to miss a class for a planned reason, please let me know as soon as possible so that we can make arrangements for you to make up the missed material. If you miss a class for an unplanned reason (e.g., illness), please contact me as soon as possible so that we can make arrangements for you to make up the missed material.

Extension Policy: If you need an extension on an assignment, please ask for it (at least 24 hours in advance whenever possible) and I will grant it. If you need more than a one-week extension, or are finding yourself needing extensions frequently, please talk with both your Dean and me to arrive at a practical and workable plan for completing the work.

Other Classroom Policies: Please silence your phones and put them away during class. Students may use laptop computers to take notes, but please refrain from using your devices for non-class-related activities during class. Please do not audio-record any portion of my lectures without explicit permission to do so. Questions and discussions are welcome and encouraged. Please be respectful of your classmates.

Exams: There is one midterm exam one final exam. Exams are (generously) timed and self-proctored. For each exam, you are allowed to make a one-page (front-and-back) note sheet to use during the exam, and you will have access to any necessary statistical tables or handouts, as well as a calculator. You will turn in your note sheet with your exam.

Research Paper: In the lab portion of this course, you will work in groups to design a research study, collect data, and analyze/interpret your data. At the end of the semester, you will write an APA-style research report detailing your findings. You will have an opportunity to get feedback on drafts of your rationale abstract, introduction, and methods, and revise them before the final paper is due. More information about the paper will be given during class.

Homework: Throughout the semester, you will complete Jamovi exercises, in which you use open-source, online software to do statistical calculations. In addition, you will complete other homework assignments including an annotated bibliography, a methods flow chart, a study materials assignment, and online training (CITI) about human subjects research.

Grading & Assignment Information:

Exam I	15%
Exam II	20%
Research Paper Drafts	Total 20%
- Abstract	3%
- Intro 1 st draft (revision allowed)	10%
- Methods	7%
Homework	Total 25%
- Jamovi lab exercises	15%
- Annotated Bibliography	5%
- Method flow chart	2%
- Study Materials	2%
- CITI Training	1%
Research Paper - Final	20%
TOTAL	100%

Grading Scale:

94.00% - 100.00%	=	4.0	73.00% - 76.99%	=	2.0
90.00% - 93.99%	=	3.7	70.00% - 72.99%	=	1.7
87.00% - 89.99%	=	3.3	67.00% - 69.99%	=	1.3
83.00% - 86.99%	=	3.0	60.00% - 66.99%	=	1.0
80.00% - 82.99%	=	2.7	59.99% and below	=	0.0
77.00% - 79.99%	=	2.3			

Grade disputes: If you believe that a mistake was made in the grading of your exam or assignment, or if you wish to dispute the way that a question was graded, please submit a written explanation of your dispute to me via email. You have one week following the return of your exam or assignment to submit a grade dispute. After one week, grades will not be changed for any reason.

Understanding appropriate sources for citations: For all assignments and exams, the following are considered appropriate and valid sources for citations and references:

- Published journal articles, both in on-line and paper formats.
- Professional handbook chapters and reviews (i.e., edited volumes with chapters written by psychological researchers).
- Academic books (i.e., books written by psychological researchers).

The following are **not to be used** as citations in your work:

- Information found on the internet, unless it is the on-line version of a scientific journal (e.g., accessing an electronic version of a journal on-line is fine). **This includes Wikipedia and/or any other webpages.**
- Any undergraduate-level textbook

In short, you should always be working with the primary literature written by psychological researchers. If you have questions about a particular source, please ask.

Academic Integrity: You are expected to abide by Haverford's Honor Code. Do not use AI (e.g. ChatGPT) to answer exam questions or other written assignments.

Disability Statement: I am committed to partnering with you on your academic and intellectual journey and recognize that you bring many strengths, perspectives and strategies as you navigate this journey. I encourage you to think proactively and strategically about leveraging these strengths, in partnership with the many resources on campus. These resources include CAPS (free and unlimited counseling is available), Office of Academic Resources, Writing Center, Student Diversity Equity and Access Team, Health Services, Professional Health Advocate, Religious and Spiritual Life, the GRASE Center, and the Advising Deans. At times you may experience challenges or stressors that impact your ability to fully engage intellectually. If the stressors are academic, I welcome the opportunity to discuss and address those stressors with you in order to find solutions together. If you are experiencing challenges or questions related to emotional health, finances, physical health, relationships, learning strategies or differences, or other related topics, I hope you will consider reaching out to the many resources here on campus. Additional information can be found at <https://www.haverford.edu/deans-office-student-life/offices-resources>.

Additionally, Haverford College is committed to creating a learning environment that meets the needs of its diverse student body and provides equitable access to students with disabilities. If you have (or think you may have) a disability related to mental health, chronic health, neurological state, and/or physical condition – please contact the Office of Access and Disability Services (ADS) at hc-ads@haverford.edu. It is never too late to request ADA accommodations – our bodies and circumstances are continuously changing. Please know that all inquiries and health-related information is handled in a sensitive and confidential manner.

Students who have already been approved to receive academic ADA accommodations and want to use these in this course should share their accommodation letter and make arrangements to meet with me as soon as possible to discuss how their accommodations will be implemented in this course. Please note that accommodations are not retroactive and require advance notice in order to successfully implement.

If, at any point in the semester, a disability or personal circumstances affect your learning in this course, please do not hesitate to reach out to me. I want to be sure you are aware of the full range of resources and options available to you.

It is a state law in Pennsylvania that individuals must be given advance notice that they may be recorded. Therefore, any student who has a disability-related need to audio record this class must first be approved for this ADA accommodation by Access and Disability Services and then must communicate approval to me. I will then make a general announcement to the class that audio recording may occur while respecting students' right to privacy by not identifying the individual(s).

Title IX Statement: Haverford College is committed to fostering a safe and inclusive living and learning environment where all can feel secure and free from harassment. All forms of sexual misconduct, including sexual assault, sexual harassment, stalking, domestic violence, and dating violence are violations of Haverford's policies, whether they occur on or off campus. Haverford faculty are committed to helping to create a safe learning environment for all students and for the College community as a whole. If you have experienced any form of gender or sex-based discrimination, harassment, or violence, know that help and support are available. Staff members are trained to support students in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more.

The College strongly encourages all students to report any incidents of sexual misconduct. Please be aware that all Haverford employees (other than those designated as confidential resources such as counselors, clergy, and healthcare providers) are required to report information about such discrimination and harassment to the Bi-College Title IX Coordinator: <https://www.haverford.edu/users/ktaylor4>

Information about the College's Sexual Misconduct policy, reporting options, and a list of campus and local resources can be found on the College's website: <https://www.haverford.edu/sexual-misconduct>

TENTATIVE COURSE SCHEDULE

*NOTE: This schedule is subject to change!! Our **moodle site** will function as a “live syllabus” and will be updated as we adjust the schedule to accommodate the pace of this semester.*

P&B refers to the Pelham and Bell Textbook (Measuring the Weight of Smoke).
Links to the Vassar and Rice chapters are also provided on Moodle.

DATE	TOPIC	READINGS	WEB RESOURCES	ASSIGNMENTS
Week 1				
Tu 9.3	Course Introduction			<i>Please fill out beginning of semester survey on Moodle</i>
Th 9.5	Overview of research methods in psychological science	P&B 1		
Week 2				
Tu 9.10	Research Methods	P&B 2		
Th 9.12	Threats to valid inference making	P&B 5		
Week 3				
Tu 9.17	Research Ethics	P&B 3,4		
Th 9.19	Racism in Psychology			
Week 4				
Tu 9.24	Basics of Research Design	P&B 6,7		
Th 9.26	Measurement			
Week 5				
Tu 10.1	Descriptive statistics		Vassar Ch 1 (Parts 1-2)	
Th 10.3	Central tendency		Vassar Ch 2 Part 1	Exam 1 distributed
Week 6				
Tu 10.8	NO LECTURE (lab only)			
Th 10.10	NO LECTURE (lab only)			Exam 1 due
Week 7				
10.15	No Class Fall Break			
10.17				
Week 8				
Tu 10.22	Variability		Vassar Ch 2 Part 2	<i>Please fill out mid-semester feedback survey on Moodle!</i>
Th 10.24	Z-scores		Vassar Ch 2 Part 3	
Week 9				
Tu 10.29	Probability and sampling		Vassar Ch 6	
Th 10.31	Hypothesis testing		Rice Section XI, Vassar Ch 9 (Parts 1-3)	
Week 10				
Tu 11.5	One-sample t-test		Vassar Ch 10	
Th 11.7	Correlation		Vassar Ch 3 (Parts 1-3), Rice Section XIV	
Week 11				
Tu 11.12	Correlation cont'd and regression			
Th 11.14	Comparing two means (paired and independent samples t tests)		Vassar Ch 11	

Week 12				
Tu 11.19	Analysis of variance (ANOVA) and the <i>F</i> statistic		Vassar Ch 12 Vassar Ch 13	
Th 11.21	ANOVA cont'd		Vassar Ch 14 (Parts 1-2)	
Week 13				
Tu 11.26	ANOVA con'td		Vassar Ch 15 (Parts 1-3) , Vassar Ch 16 (Parts 1-5)	
Th 11.28	No Class Thanksgiving Break			
Week 14				
Tu 12.3	Meta-analysis, non-parametric tests	P&B 11	Vassar Ch 8 (Parts 1-3) , Rice Section XVII	Exam 2 distributed
Th 12.5	Review Session (research designs)			
Week 15				
Tu 12.10	NO LECTURE (lab only)			Exam 2 due
Th 12.12	POSTER PRESENTATIONS!			
Week 16	NO CLASS - FINALS WEEK , Final Paper due Friday, 12/20 by noon			