#### Experimental Psychology (or similar)

Department of \_\_\_\_\_\_\_\_\_\_. \_\_\_\_\_\_\_ University.

Syllabus (Psy 301) Fall, 2025.

**Course credits: 3 plus 1 credit laboratory**

**Prerequisites** PSY 101 AND MAT 261

**Professor \_\_\_\_\_ \_\_\_\_\_\_\_**

Textbook Information:

Moss, A. J., Robinson, J., & Litman, L. (2025). *Research in the Cloud: An Introduction to Modern Methods in Behavioral Science*. Cambridge University Press.

Free Textbook Link: <https://bit.ly/RITC_Preview>

OSF Link to Materials: <https://osf.io/a8kev/>

**Course Description**

Welcome to Experimental Psychology! This hands-on, project-based course introduces you to the methods psychologists use to study behavior and mental processes through a Classroom-Laboratory (CLAB) model. Each session combines lecture and applied activities, giving you the chance to learn about behavioral research methods and immediately put them into practice by working with real data.

We will explore descriptive, correlational, and experimental designs, learning when and how to apply each one. Along the way, you will replicate classic findings, design and launch your own studies. You will also build practical skills with research tools, including Google Sheets, Qualtrics for survey design, SPSS for data analysis, and AI-assisted platformsto enhance study design and interpretation.

By the end of the course, you will not only know how to conduct rigorous psychological research, but also how to evaluate it critically, communicate findings in APA style, and collaborate effectively as part of a research team. Let’s get started!!

**Course Learning Goals**

1. Think like a scientist by applying the logic of psychological science to *generate hypotheses, design studies, and interpret findings*.
2. *Design and conduct* behavioral research using a range of methods (descriptive, correlational, experimental) and appropriate measurement tools.
3. *Use research technologies effectively* by employing software platforms (e.g. Excel, Google Sheets, Qualtrics (Engage), SPSS, JASP) and AI-assisted tools to design studies, collect data, and enhance analytic and methodological decision-making.
4. *Analyze and interpret data using statistical software* to evaluate evidence, assess reliability and validity, and draw accurate conclusions.
5. *Communicate scientific findings* effectively through APA-style writing, data visualizations, and oral presentations.
6. *Collaborate professionally* by engaging in group research projects that require teamwork, project management, and shared responsibility.

**Student Learning Outcomes**

* Generate testable hypotheses from psychological theories and empirical findings.
* Design and implement studies using descriptive, correlational, and experimental methods.
* Employ research technologies to collect, manage, and analyze behavioral data.
* Apply statistical techniques (e.g., descriptive statistics, correlations, t-tests, chi-square, regression/ANCOVA) to evaluate research questions.
* Interpret and critique findings with attention to validity, reliability, third-variable control, and ethical standards.
* Communicate research findings effectively through APA-style reports, oral presentations, and visual displays of data.
* Collaborate effectively in research teams.

**Grading**

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| Grading Breakdown | |
| Portfolio Entries | 55% |
| Midterm Exam | 15% |
| Final Exam | 15% |
| Final Poster Presentation | 15% |

Portfolio Entries: Throughout the class you will be keeping a running portfolio of your work. You will submit individual portfolio entries on Canvas while keeping a larger document as a shareable Google document.

Final Project: This includes grades for each element of the project including, Brainstorming, Annotated Bibliography, Introduction, Methods, Results and Discussion.

Poster Presentation: This is a group presentation in which each member of the group receives the same grade. You will create a conference style poster and present your project to the class.

Academic Integrity: Please see link below for [Institution’s] full statement on academic integrity which includes AI usage. Below is an excerpt.

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| Class Schedule  \**Please note this is updated regularly and subject to change\** | | |
| Date | Class Content | Assignments/Projects Due |
| 9/3 | Welcome and Introduction!  Module 1.1 - Research Activity, TIPI, Intro to your Portfolio | Portfolio Entry 1 - TIPI  [TIPI-Data](https://docs.google.com/spreadsheets/d/1HuZLBj3w-NySahKrNaAy-Y51PEWAVuMjPjYcCKdh6LQ/edit?usp=sharing) |
| 9/8 | Module 1.2 - Scientific Theories  Module 1.3 - Behavioral Science in the real world  Module 1.4 - Thinking Critically abotu Cause and Effect |  |
| 9/10 | Module 2.1 - Finding Participants  What’s it like being a research participant? Setting up your Connect account. | [Connect Participant Account](https://account.cloudresearch.com/Account/Register?returnurl=%2Fconnect%2Fauthorize%2Fcallback%3Fclient_id%3Dconnect%26redirect_uri%3Dhttps%253A%252F%252Fconnect.cloudresearch.com%252Fparticipant%252Fauthentication%252Flogin-callback%26response_type%3Dcode%26scope%3Dopenid%2520profile%2520role%2520connectApi%2520openid%2520profile%2520email%26state%3Dd67b65c011f84eb9915fc371e1ed10b6%26code_challenge%3D0KstscYo4c0Tu4fyTH1QnrCrKqOG3hk924Z43tRSHqI%26code_challenge_method%3DS256%26response_mode%3Dquery&product=Connect_Participant)  [Connect Researcher Account](https://account.cloudresearch.com/Account/Register?ga_ref=connect-for-researchers)  Portfolio Entry 2 - Reporting on your participant Experience |
| 9/15 | Module 2.2 - Conducting Literature Reviews  Module 2.3 - Tools for Creating Studies - Qualtrics - setting up Qualtrics Accounts | Entry 3 - Using Google Scholar |
| 9/17 | Module 2.4 - Tools for Analyzing Data - SPSS  Module 2.5 - Tools for Sharing Research  Module 3.1- Basics of Measurement  Module 3.2 - The Power of Description |  |
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| 9/29 | Module 3.3 - Designing a Descriptive Study  Introduction to the Heinz Dilemma and Using Qualtrics |  |
| 10/10-15 |  |  |
| 10/20 | Module 3.4 - The Heinz Dilemma -Analyzing Descriptive Data, an Introduction to SPSS  Module 3.5 - Conducting Your Own Study!  Brainstorming and Programming.  Study Launch! |  |
| 10/22 | Analyze your Data!  Module 4.1 - Measurement Scales | Entry 4 - Reporting on your Data Analysis |
| 10/27 | Module 4.2 - Finding and Creating Measurement Scales  Finding existing measurement scales and creating your own using AI | Entry 5 - Designing measurement scales |
| 10/29 | Module 4.2 - Wrap up if necessary  Module 4.3 - Reliability and Validity  Module 4.4 - Scales of Measurement |  |
| 11/3 | Module 5.1 - What do correlations tell us?  Positive and Negative Correlations  Calculating Correlations  Using and Reporting Correlations | Entry 6 - using and reporting correlations |
| 11/5 | Module 5.2 - Different Types of Associations  Continuous vs. Categorical Data  Calculating, Using and Reporting T-tests and Chi-Squares | Entry 7 - Using and reporting t-tests and Chi-Squares |
| 11/10 | Module 5.3 - Guided Correlational Research Project, Morality and the Heinz Dilemma   * Develop Hypotheses * Access Study Materials * Begin Data Analysis   **Exam 1** | **EXAM 1 - Chapters 1-4** |
| 11/17 | Module 5.3 - Continue Guided Research Project.  Complete Data Analysis and Write Up | Entry 8 - Guided Research Project, Methods and Results |
| 11/19 | Module 5.4 - Designing your own research Project. Group Project #1  Form Groups  Brainstorming and Hypotheses Generating  Collect Measures  Begin Survey Building | Entry 9 - Progress reports on Group Project. Begin working on Methods section |
| 11/24 | Module 5.4 - Group Project Continued  Complete Survey and Collect Data  Analyze Data if Possible |  |
| 11/26 | Analyze Data and Complete Projects | Entry 10 - Results and write up for Project 1 |
| 12/1 | Wrap up Projects if needed  Chapter 6 - Issues with Correlations and how to control for them  Module 6.1 - Controlling for Third Variables | Entry 11 - ANCOVAs and Regression |
| 12/3 | Wrap up Module 6.1  Module 6.2 - The directionality of Cause and Effect |  |
| 12/8 | Module 7.1 -How Experiments Establish Causality  Module 7.2 - Guided Project - Perspective taking | Entry 12- Perspective Taking |
| 12/10 | Module 7.2 - Finish Analyses  Module 7.4 - Factorial Designs | Entry 13 - Factorial Designs |
| 12/15 | Module 7.3 - Repeated Measures  Form Project Groups  Brainstorming  Literature Review  Generate Hypotheses | Brainstorming, Hypotheses |
| 12/17 | Finalize Hypotheses  Collect Measures  Begin Programming Studies | Initial Bibliography, Measures, Outline of Methods Section |
| 12/22 | Finish Programming if Needed  Launch Studies | Methods Section Due  Bibliography Due |
| 12/24 | Analyze Data | Annotated Bibliography Due |
| 12/29 | Analyze Data | Introduction Due |
| 12/31 | Complete Data Analysis if necessary | Results Section Due |
| TBD | Group Presentations and Individual Final Paper Due | Final Paper and Power Point Presentations Due |