

# **Master Course Syllabus**

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: <u>https://catalog.uvu.edu/</u>

Semester: Spring	<b>Year:</b> 2025
Course Prefix: PSY	Course and Section #: 3030-X03
Course Title: Research Methods for Psychology	Credits: 4

### **Course Description**

Explains the logic of the classical true experiment and how it permits causal inferences. Compares and contrasts the benefits and drawbacks of quasi-experimental and correlational research designs. Includes the design of an empirical psychological study. Covers compliance with guidelines for ethical research as codified in law and the American Psychological Association's ethics code. Requires collection, analysis, and presentation of quantitative data for an empirical psychological study. Includes a lab.

# Course Attributes

This course has the following attributes:

- □ General Education Requirements
- □ Global/Intercultural Graduation Requirements
- □ Writing Enriched Graduation Requirements
- ☑ Discipline Core Requirements in Program
- □ Elective Core Requirements in Program
- □ Open Elective

Other: Click here to enter text.

### **Instructor Information**

Instructor Name: Dr. Joakim Ronstroem

# **Student Learning Outcomes**

Upon successful completion, students should be able to...

- Explain the logic of the classical true experiment and how it permits causal inferences.
- Compare the benefits and drawbacks of quasi-experimental and correlational research designs.
- Collaborate with peers to design an empirical psychological study.
- Comply with guidelines for ethical research as codified in law and the American Psychological Association's ethics code.
- Interpret quantitative data for an empirical psychological study.
- Students will be able to write a disciplinarily-appropriate research paper on their original projects.

This course is required for psychology majors.

### **Course Materials and Texts**

Research Methods in Psychology: Evaluating a World of Information (Fourth Edition) Beth Morling ISBN-13: 978-0393536263

American Psychological Association (APA) Publication Manual, 7th Edition.

### Course Requirements

#### **Course Assignments, Assessments, and Grading Policy**

Teamwork Formation & Functioning Activities (4%)

There will be four short teamwork-related activities throughout the semester, each worth 5 points. These activities will help in forming a team for the group project assignment and checking-in about team functioning. The purpose of these assignments is to help you meet the course objective of working with peers to design an empirical study. It will help you assess how your team is working together and provide me with information about how to support you and fairly assign grades for the group lab and final assignments.

#### Lecture Activities (18%)

Videos of lecture will be posted by the Monday of each week. Lectures will consist of short videos with interspersed activities. These lectures go over concepts from the textbook and provide additional examples and practice problems to help you learn about research design.

Lecture activities are short quizzes or discussions that you complete as you go through the lecture videos. There are three activities per lecture. These activities will challenge you to apply what you've learned in the lecture videos and help you prepare for chapter quizzes.

Your lowest six activity scores will be dropped.

#### Lab Assignments (24%)

There are 10 lab assignments that are due throughout the semester. Lab assignments include activities related to research methods, completing training on how to conduct ethical psychological research, and milestones for designing your own research project. Specific details about each lab assignment is available on the individual lab assignment page. Please note that some labs are to be completed individually and others with your team.

Lab assignments are due by Sunday at 11:55pm.

#### Module Quizzes (24%)

There are 12 chapter quizzes administered on Canvas. Each quiz will be a combination of traditional multiple choice and multiple choice with elaboration. Each quiz covers one module and is non-cumulative. Quizzes must be completed by Sunday at 11:55pm each week.

#### Poster Presentation (10%)

In addition to a research paper, your group will be designing and presenting a poster about your research project worth 10% of your grade. You will create and share your poster online in a discussion on Canvas!

#### Research Paper (20%)

There is one final research paper due at the end of the semester that is worth 20% of your grade. This research paper will be the final product of a semester's worth of work of designing, running, and analyzing the data from a group research project. Homework assignments throughout the semester will guide you through the process of writing your research paper.

The research paper is due by the end of finals week.

Your group may decide whether to submit one final research paper or individual papers for each group member. You will decide on which option works for your group best part way through the semester.

#### **GRADING POLICY**

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Grade	Percent
А	94-100
A-	90-93
B+	87-89
В	83-86
B-	80-82
C+	77-79
С	73-76
C-	70-72
D+	67-69
D	63-66

Grade	Percent
D-	60-62
Е	0-59

#### **Required or Recommended Reading Assignments**

Module 1: How do we know things? Sources of Information: Why Research Is Best and How to Find It + Ch 1 optional

Module 2: What can research tell us? Three Claims, Four Validities: Interrogation Tools for Consumers of Research (only pages 57-68)

Module 3: How do we conduct research ethically? Ethical Guidelines for Psychology Research (Ch 4)

Module 4: How do we measure the mind? Identifying Good Measurement (Ch 5)

Module 5: How can we measure what people do? Surveys & Observations: Describing what People Do (Ch 6)

Module 6: When do our results generalize? Sampling: Estimating the Frequency of Behaviors and Beliefs (Ch 7)

Module 7: What is an experiment? Introduction to Simple Experiments (Ch 10)

Module 8: What is a good experiment? More on Experiments: Confounding and Obscuring Variables (Ch 11)

Module 9: How can experiments test more complex ideas? Experiments with More Than One Independent Variable (Ch 12)

Module 10: What do bivariate correlations tell us? Bivariate Correlational Research (Ch 8)

Module 11: How can correlations get closer to causation? Multivariate Correlational Research (Ch 9)

Module 12: When is a study trustworthy and relevant to the real world? Replication, Generalization, and the Real World (Ch 14)

Module 13: How do I organize my data?

Wide & Long Data Format (just read intro and wide data)Links to an external site. Qualtrics: Exporting Response DataLinks to an external site.

Module 14: How do I analyze my data? Statistics Review – Descriptive Statistics Statistics Review – Inferential Statistics (Use headings to read what you need to study)

Module 15: How do I present my research? Presenting Results <u>Tips for presenting your researchLinks to an external site.</u>

#### General Description of the Subject Matter of Each Lecture or Discussion

How do we know things?

- Explain different ways of knowing and their uses
- Identify the processes related to psychology as a science
- Find and cite scholarly sources

What can research tell us?

- Identify the three claims made in psychological research
- Define the basics of the four validities
- Match the type of research to the type of claim

How do we conduct research ethically?

- Define 3 ethical principles of the Belmont report & describe how each is applied. See similarities to 5 APA ethical guidelines.
- Recognize violations to ethical principles and know historical examples
- Articulate some of the ways ethical decision making requires balancing priorities.

How do we measure the mind?

- Identify different ways to measure the mind
- Describe the kinds of evidence that support the construct validity of a measured variable.
- Describe the evidence that supports the reliability of a measured variable.

How can we measure what people do?

- Recognize and fix flaws in survey question design
- Describe how researchers can make observations with good construct validity
- Create and analyze a short a survey or observational study

When do our results generalize?

- Explain why external validity is important
- Identify bias and unbiased sampling techniques
- Explain why larger samples are not more representative

What is an experiment?

- Identify an experiment's independent, dependent variables
- Differentiate between within and between subjects design
- Participate in and interpret mini experiments

What is a good experiment?

- Identify threats to experimental validity
- Explain how to resolve threats to internal validity in experiments
- Interrogate null results

How can experiments test more complex ideas?

• Explain why researchers combine independent variables in a factorial design

• Describe an interaction effect

• Identify and interpret the main effects and interaction effects in a factorial design What do bivariate correlations tell us?

- Define a correlational study and claims it can make
- Interrogate the four validities of an association claim
- Create and analyze a short correlational study

How can correlations get closer to causations?

- Interpret a longitudinal study
- Interpret a multiple-regression study
- Explain mediation & moderation

When is a study trustworthy and relevant to the real world?

- Explain why it is essential for a study to be replicated and why replication may fail
- Evaluate when and how a study is important

How do I organize my data?

- Determine the appropriate statistical tests for different types of research
- Set up data for analysis

How do I analyze my data?

- Analyze data with statistical tests
- Interpret the results of statistical tests
- Write results in APA style

How do I present research?

- Interpret and share the results of statistical tests
- Create oral and written presentations of research

### **Required Course Syllabus Statements**

#### **Generative AI**

Generative AI is a rapidly emerging digital technology that has the potential to enhance and hinder learning. In this class I expect students to write their own words and, submitting AI generated content as your own is not accepted. This includes copying AI generated content, or editing a text written by AI and submitting as your own.

#### Using Remote Testing Software

 $\boxtimes$  This course does not use remote testing software.

□ This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of remote test-takers' immediate surroundings, may require use of a webcam while taking an exam, may require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

# **Required University Syllabus Statements**

#### Accommodations/Students with Disabilities

Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancyrelated conditions may contact UVU <u>Accessibility Services</u> at <u>accessibilityservices@uvu.edu</u> or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at <u>DHHservices@uvu.edu</u>

DHH is located on the Orem Campus in BA 112.

#### **Academic Integrity**

At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their <u>rights and responsibilities</u>. In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in <u>UVU Policy 541: *Student*</u> <u>*Code of Conduct*</u>.

#### **Equity and Title IX**

Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education's Office for Civil Rights or UVU's Title IX Coordinator at 801-863-7999 – <u>TitleIX@uvu.edu</u> – 800 W University Pkwy, Orem, 84058, Suite BA 203.

#### **Religious Accommodation**

UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work. To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at <u>accessibilityservices@uvu.edu</u>. If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a <u>specially dedicated</u> <u>space</u> for meditation, prayer, reflection, or other forms of religious expression.