



蘇州大學  
Soochow University

# **PSY 235 Basic Psychological Research and Statistical Analysis Fall 2023**

**Course Credits:** 4

**Contact Hours:** 56 hours

**Instructor:** TBA

**Email:** TBA

## **COURSE OBJECTIVES**

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This course is focus on basic research and data analysis in psychology. Topics include probability, sampling distributions, hypothesis testing, effect size, t-tests and more. This course offers students a thorough grasp of the essential principles and hands-on abilities needed to carry out reliable psychological research and proficiently analyze data. Throughout the course, students will acquire the necessary skills to conduct a critical assessment of psychological research, formulate their own research projects, and proficiently analyze data in order to derive significant insights.

Upon Completion of this Course, students will be able to:

1. Define and differentiate between various research designs used in psychology
2. Explain the ethical principles and guidelines governing psychological research involving human participants
3. Understand the role of variables, operational definitions, and controls in designing experiments
4. Formulate clear and testable research hypotheses and questions
5. Develop the ability to critically assess research articles, identifying methodological strengths and weaknesses.

## **PREREQUISITES**

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PSY 100 Introduction to Psychology

## **GRADING**

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Grades will be determined by accumulating points, with 100 points being the maximum, as follows:

ITEM	POINTS
Quizzes	20 Points
Assignments	20 Points
Midterm Exam	15 Points
Project	15 Points
Final Exam	30 Points
Total	100 Points

Late submissions will be graded at the end of the course. Grades will be assigned according to the following rule:

$A \geq 90 > B \geq 80 > C \geq 70 > D \geq 60 > F$ .

We reserve the right to make adjustments to the overall grading policy.

## COURSE MATERIALS

### Required Texts:

Paul G. Nestor, Russell K. Schutt, *Research Methods in Psychology*, 3rd Edition, SAGE Publications, 2019.

### Recommended (Optional) Texts or Other Materials:

None

## COURSE TOPICS

MODULE	TASKS
Module 1	<p><b>Topics:</b>            Topic 1: Psychology, science and research            Topic 2: Uncommon Sense and the Scientific Method            Topic 3: From Theory to Testable Hypothesis            Topic 4: Experiments and experimental designs in psychology</p> <p><b>Assessments:</b>            Quiz#1</p>



Module 2	<b>Topics:</b> Topic 5: Formulating Research Questions and Hypotheses Topic 6: Analyzing qualitative data Topic 7: Fundamentals of Qualitative Research Topic 8: Methods for Collecting Qualitative Data <b>Assessments:</b> Quiz#2 Project
Module 3	<b>Topics:</b> Topic 9: Probability Sampling Methods Topic 10: Sampling Distributions Topic 11: Sampling Error Topic 12: Sample Size Considerations <b>Assessments:</b> Assignment#1
Module 4	<b>Topics:</b> Topic 13: Analysis of Variance Topic 14: t Test Topic 15: Chi-Square Topic 16: Testing for differences between two samples <b>Assessments:</b> Midterm Exam Assignment#2
Module 5	<b>Topics:</b> Topic 17: Tests for categorical variables and frequency tables Topic 18: Correlation and Measurement Reliability Topic 19: Meta-Analysis Topic 20: STAT CORNER: p Value and Effect Size <b>Assessments:</b> Final Exam

## ATTENDANCE

1) Class attendance is required. Missing classes without permission will lead to decrease in overall grade.

Missing less than two classes: no penalty.

Missing more than two classes: 7% will be taken off from the overall grade.

If the instructor reports a student's frequent missing of class to the Soochow University Academic Administration Office, the student might get a written warning and might be prohibited from attending final exam.



2) Participants in this course are expected to arrive in class promptly and adequately prepared. The primary objective of this course is to critically engage with the readings and the subject matter. Therefore, course participants are expected to have completed the reading prior to class and prepare thoughtful reflections/commentaries to share with fellow colleagues.

### **LEARNING REQUIREMENTS**

- 1) Late assignments are not acceptable and are subjected to grade deductions.
- 2) Assignments submitted in the wrong format will be counted as not submitted.
- 3) Failure to submit or fulfill any required course component results in failure of the class.
- 4) Make-up for midterm and final exams only with valid excuses, as defined by the University.
- 5) In order to earn a Certificate of Completion, participants must thoughtfully complete all assignments by stated deadlines and earn an average quiz score of 50% or greater.

### **TECHNOLOGY POLICY**

The use of electronic devices in class is distracting, both for the user and for the rest of the class. Only non-programmable calculators can be used in the tests and exam. Any attempts to use cell phones and other electronic communication devices will be seemed as cheating. Laptops are discouraged, unless you use them for activities DIRECTLY related to the course (eg., note taking, reading course documents).

### **ACADEMIC INTEGRITY POLICY**

Soochow University highly values the academic integrity and aims to promote the academic fairness, honesty and responsibility. Any academic dishonesty behaviors and any attempts to cheats and plagiarism will be reported to the university administration office. A written warning and the relevant penalties will be imposed. The record might be shown on the official university transcript.

### **DISABILITY ACCOMMODATION**



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Soochow University is committed to maintaining a barrier-free environment so that students with disabilities can fully access programs, courses, services, and activities at Soochow University. Students with disabilities who require accommodations for access to and/or participation in this course are welcome.

Note:

Please contact the University Administrative Office immediately if you have a learning disability, a medical issue, or any other type of problem that prevents professors from seeing you have learned the course material.