

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
PSY 211 - RESEARCH METHODOLOGY FOR BEHAVIORAL SCIENCES (4 CR.)

Course Description

Introduces the principles and processes of various research methods for applying the scientific method to understanding behavior. Includes preparation for and fundamental experience with designing, conducting, interpreting, and evaluating behavioral science research studies. Prepares students for creating APA-style research manuscripts to summarize research. Lecture 4 hours per week.

General Course Purpose

Research Methodology for Behavioral Sciences focuses on elements of research design critical for producing and evaluating research. This course will focus on how to design rigorous, ethical research studies. It addresses the importance of scientific methodology and covers various research designs and their use for investigating behavioral science research questions. It requires students to explain and discuss various facets of reliability and validity for both existing research studies and prospective research studies. This writing-intensive class also requires students to become active participants in the research process, producing an APA-style research manuscript for a prospective or pilot research study. Upon successfully completing this course, students should have the skills necessary for rigorous analysis of research as well as the fundamental skills necessary for conducting research

Course Prerequisites/Corequisites

Prerequisites: PSY 200 and PSY 210 (currently PSY 213) or department approval.

Course Objectives

Upon completing the course, the student will be able to:

Scientific Literacy

- Explain why the scientific method provides the most rigorous answers to behavioral science research questions
- Evaluate strengths and limitations in various research designs
- Identify and analyze existing research for a given behavioral science research question
- Design basic behavioral science research studies

Quantitative Literacy

- Interpret and evaluate results and output from statistical analysis

Written Communication

- Implement APA-style guidelines to produce clear and accurate elements of research manuscripts

Identify and implement fundamental aspects of research design

- Describe how psychology uses scientific methodology to draw conclusions
- Explain why the scientific method is the best approach for drawing rigorous conclusions about behavioral science questions

- Identify key components of scientific research studies (e.g., independent variable, dependent variable)

- Describe various research methods and designs (e.g., surveys, observation, correlational research, quasi-experimental designs, simple and complex experimental designs)
- Identify appropriate research methods and designs for specific research questions
- Evaluate advantages and limitations of various research methods and designs
- Describe ethical principles for conducting psychological research

Evaluate reliability and validity in behavioral science research

- Explain various types of reliability (e.g., internal, interrater, test-retest)
- Discuss the importance of reliability in psychological research
- Explain various types of validity (e.g., content, construct, internal/external, convergent/divergent, face, statistical)
- Discuss the importance of validity in psychological research
- Discuss threats to research, including sources of bias and threats to reliability and validity

Evaluate behavioral science research studies

- Evaluate existing literature and published materials for credibility, relevance, strengths, and limitations
- Explain limitations of behavioral science research (e.g., assumptions, correlation v. causation, replication issues)
- Discuss threats to research, including sources of bias and threats to reliability and validity
- Describe how individual and sociocultural factors can influence conclusions drawn from scientific research

Design and conduct rigorous behavioral science research studies

- Conduct basic research to identify and summarize existing literature relevant to a research question
- Develop testable, falsifiable hypotheses relevant to behavioral science research
- Design appropriate studies for testing specific research questions
- Complete a simulated or formal Institutional Review Board (IRB) approval process
- Use APA style to prepare basic research manuscripts

Major Topics to be Included

- Identify and implement fundamental aspects of research design
- Evaluate reliability and validity in behavioral science research
- Evaluate behavioral science research studies
- Design and conduct rigorous behavioral science research studies