

Montgomery County Community College
 PSY 231
 Research Methods in Psychology
 4-3-1

COURSE DESCRIPTION:

This course provides students with foundational knowledge and skills required to conduct valid research in psychology and other social sciences. Students will learn how to formulate a research study, prepare a proposal, and identify the ethical guidelines for research with human subjects. Approaches to measurement of behavior and experience, analysis and interpretation of results, and preparation of a written report of findings will be included. Three hours per week will be devoted to lecture/class presentation, and one hour per week will be spent in guided small group work on development and implementation of a research project.

REQUISITES:*Previous Course Requirements*

- PSY 101 Introduction to Psychology
- MAT 130 Probability and Statistics or MAT 131 Introduction to Statistics I

Concurrent Course Requirements

None

LEARNING OUTCOMES Upon successful completion of this course, the student will be able to:	LEARNING ACTIVITIES	EVALUATION METHODS
1. Describe the basic characteristics of the scientific process used in psychology.	Readings Lecture/Discussion	In-Class Tests Online Quizzes
2. Compare and contrast different research designs used by psychologists, including descriptive, experimental, and quasi-experimental.	Readings Demonstration and Practice Lecture/Discussion Discussion/Collaboration in Small Groups	In-Class Tests Online Quizzes Lab Assignments
3. Evaluate the appropriateness of conclusions derived from psychological research (this could include validity and reliability issues).	Readings Demonstration and Practice Lecture/Discussion Research Project	In-Class Tests Online Quizzes Written Final Report/Presentation of Research Project

LEARNING OUTCOMES	LEARNING ACTIVITIES	EVALUATION METHODS
4. Analyze and interpret quantitative data in psychological research.	Readings Demonstration and Practice Lecture/Discussion Research Project Discussion/Collaboration in Small Groups	In-Class Tests Online Quizzes Lab Assignments Written Final Report
5. Design and conduct basic studies to address psychological questions using appropriate research methods.	Demonstration and Practice Lecture/Discussion Research Project Discussion/Collaboration in Small Groups	Lab Assignments Written Final Report Class Presentation of Research Project
6. Articulate and apply the APA Ethics Code in the treatment of human and nonhuman participants and the role of the Institutional Review Board.	Readings Practice Lecture/Discussion Research Project Discussion/Collaboration in Small Groups	In-Class Tests Online Quizzes Written Final Report
7. Draw conclusions appropriately based on the parameters of particular research methods, including identifications of the strengths and weaknesses of research designs.	Readings Demonstration and Practice Lecture/Discussion Research Project Discussion/Collaboration in Small Groups	Lab Assignments Written Final Report/Class Presentation of Research Project

At the conclusion of each semester/session, assessment of the learning outcomes will be completed by course faculty using the listed evaluation method(s). Aggregated results will be submitted to the Associate Vice President of Academic Affairs. The benchmark for each learning outcome is that *70% of students will meet or exceed outcome criteria.*

Students will collaborate to formulate and carry out a research project to be presented to the class at the end of the semester. This will provide hands-on experience in applying the knowledge and skills learned in the class, as well as an opportunity to demonstrate mastery.

SEQUENCE OF TOPICS:

1. Introduction to the Course: Introduction to the Assumptions of the Scientific Method and Its Application to the Understanding of Human Behavior and Experience
2. The Descriptive Methods: Their Uses, Advantages, Limitations, and Interpretation
3. The Experimental Method: Its Uses, Advantages, Limitations, and Applications
4. Formulating Research Hypotheses: Review of the Literature, Creating a Testable Hypothesis, the Issue of Measurement
5. Ethical Guidelines and Considerations in the Study of Human and Animal Behavior; the American Psychological Association Guidelines; the Role of the IRB
6. Presentation of Research Findings: the Structure of Research Article/Report; APA Format
7. Description of Behavior through Numerical Representation: Scales of Measurement, Pictorial Representations of Data, Standard Scores
8. The Use of Inferential Statistics in Hypothesis Testing
9. Internal and External Validity: How to Maintain Control in an Experimental Design
10. Between-Subjects Designs in Experimental Research
11. Within-Subjects Designs in Experimental Research
12. Quasi-Experimental Designs and When to Use Them
13. Single-Subject Designs: The Case Study and Beyond
14. Questionnaires and Survey Research: Construction and Sampling Issues

LEARNING MATERIALS:

Primary Text:

Research Design and Methods, 11th Ed. (2021). Bordens, K. , Abbott, B. and Barrington, B., McGraw Hill.

To fulfill the requirements of this course, students will need access to SPSSx for statistical analysis, as will the instructor.

Other learning materials may be required and made available directly to the student and/or via the College's Libraries and/or course management system.

COURSE APPROVAL:

Prepared by: Ann Marie Donohue	Date: 3/2012
VPAA/Provost or designee Compliance Verification: Victoria L. Bastecki-Perez, Ed.D.	Date: 5/21/2012
Revised by: Ann Marie Donohue	Date: 3/31/2013
VPAA/Provost or designee Compliance Verification: Victoria L. Bastecki-Perez, Ed.D.	Date: 4/8/2013
Revised by: Ann Marie Donohue	Date: 2/26/2018
VPAA/Provost or designee Compliance Verification: Victoria L. Bastecki-Perez, Ed.D.	Date: 2/27/2018

Revised by: Ann Marie Donohue
VPAA or designee Compliance Verification:

Date: 9/7/2023
Date: 9/7/2023



Handwritten signature of Ann Marie Donohue in cursive script.

This course is consistent with Montgomery County Community College's mission. It was developed, approved and will be delivered in full compliance with the policies and procedures established by the College.