PSY 316 Research Methods in Psychology Spring 2022



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Dates: Jan 11, 2022 to May 3, 2022 Times: 1:00pm to 2:20pm

**Location: Jan 11 to Jan 27 Zoom** https://chaminade.zoom.us/j/96591249199

Location: Feb 1 to May 3 Sullivan Library Hall 201

## **Required Textbook**

Cozby, P. & Bates, S. (2018) *Methods in Behavioral Research* (13th Ed.). McGraw Hill Education

Optional book for this course: The Publication Manual of the American Psychological Association 7th edition-ISBN: 978-1-4338-3215-4

# **Catalog Course Description**

This course provides an introduction to quantitative research methodology and design. Topics covered include the research process, measurement, sampling, ethics in social research, survey, experimental and field research. As one of the requirements for this course, students will complete a research proposal.

# Psychology Program Learning Outcomes (PLO)

- 1. Students will identify key concepts, principles, and overarching themes in psychology.
- 2. Students will exhibit the value of adaptation and change through the critical thinking process of interpretation, design, and evaluation of psychological research.
- Students will exhibit effective writing and oral communication skills within the context of the field of psychology.
- 4. Students will exhibit the value of educating the whole person through the description and explanation of the dynamic nature between one's mind, body, and social influences.

#### **Program Linking Statement**

This course develops and assesses the skills and competencies for the program student learning outcomes of 2) students will exhibit the value of adaptation and change through the critical thinking process of interpretation, design, and evaluation of psychological research and 3) students will exhibit effective writing and oral communication skills within the context of the field of psychology.

# **Course Description**

This course assists the student in learning and applying the scientific method to an area of research investigation by providing them with an opportunity to create and develop their own personal research proposal. The proposal will include abstract, literature review, methodology, statistical analysis and discussion sections.

# **Student Learning Outcomes**

By the end of this course, students will:

- 1. The objectives, strengths, and limitations of scientific inquiry (PLO 2)
- 2. The differences between scientific versus non-scientific approaches to knowledge (PLO 2)
- 3. Ethical implications of scientific research (PLO 2)
- 4. Different research methods and designs used in the behavioral and social science (PLO 2)
- 5. Measurement, the measurement process, and the related issues of reliability and Validity (PLO 2)
- Developing a research proposal related to the study of psychological or socialcultural issues (PLO 3)

- 7. Conducting a literature review and demonstrating the ability to use online and library sources to obtain research information (PLO 3)
- 8. Communicating clearly in writing and following guidelines of A.P.A. for preparing manuscripts (PLO 3)
- 9. How the Five Marianist Educational Values are integrated into the course (PLO 3)

#### **Course Requirements**

#### 1. Weekly Chapter Quizzes- (SLO 1, 2, 3, 4, 5, 6, 7, 8, 9)

Each chapter quiz will review the content from the chapter reading assignment.

## 2. Final exam: (SLO 1, 2, 3, 4, 5, 6, 7, 8, 9)

Final exam that reviews chapter concepts, lecture content, and class exercises.

#### 3. Illustrative article reviews: (SLO 1, 2, 3, 4, 5)

Selected chapters will have selected article from the professional literature that demonstrates and illustrates the content presented. Key discussion questions provide applied, critical thinking, and summative learning.

## 4. Research Proposal preparation- (SLO 6 & 7)

You will be given research and article template to complete article review about your chosen topic.

## 5. Unit & Group Exercises- (SLO 3, 4, 5, 6)

Selected units will have exercises to help to retain previously learn knowledge, demonstration of content factual knowledge, apply knowledge to actual situations, analysis of ideas into simpler parts, synthesis of ideas into a new solution, or evaluation of evidence.

# 6. Research proposal paper/presentation = (3, 4, 5, 6, 7, 8)

You will prepare a research proposal addressing a specific problem of interest within your field of interest.

The research proposal will consist of the following sections:

- Title page
- Abstract: Very clearly posed abstract that provides a summary of the research report that includes the hypothesis, the procedure, and projected results in 120 words or less.
- Literature Review
  - ✓ **Background information** (how problem has been investigated and how past research and theories have been applied to the identified problem)
  - ✓ **Statement of the problem** (research question, hypothesis, and prediction statement)
- Methodology (you must justify your choices using the literature to support your claims and rationale)
  - ✓ Operational definitions
  - ✓ Subject Description (the proposed characteristics of the participants, how this sample population will be chosen)
  - ✓ Procedures (procedural steps of the research process, how the research will be conducted; and description of the proposed testing materials/ assessments or intervention that will be utilized)
  - ✓ Study Survey Instrument- example of what will be used to collect information
  - ✓ Statistical analysis that will be performed with fake collected data

#### Reference page (no less than 8 peer-reviewed journal articles)

- This Research Proposal must be formatted using APA style 7<sup>th</sup> edition.
- o Refer to Research Proposal rubric to view the expectations of this assignment.

#### **Electronic Presentation**

You will upload your 15 minute research proposal in an electronic presentation program.

#### Assessment

- 1. Weekly chapter quizzes: 14 @ 10= 140 points possible
- 2. Final exam: 50 points each= 50 points possible
- 3. Illustrative article reviews: 11 @ 5 = 55 points possible

- 4. Unit and Group Exercises: 18 @ 5 points = 90 possible points
- 5. Research Proposal preparation 3 @ 5 = 15 possible points
- 6. Research proposal paper and presentation: 1 @ 100 points

Total= 450 points possible

#### Grading

A = 90%-100% B =80%-89% C =70%-79%

#### **Scientific Method Definitions**

The **METHODS OF SCIENCE** are only tools, tools that we use to obtain knowledge about phenomena.

The **SCIENTIFIC METHOD** is a set of assumptions and rules about collecting and evaluating data. The explicitly stated assumptions and rules enable a standard, systematic method of investigation that is designed to reduce bias as much as possible. Central to the scientific method is the collection of data, which allows investigators to put their ideas to an empirical test, outside of or apart from their personal biases. In essence, stripped of all its glamour, scientific inquiry is nothing more **THAN A WAY OF LIMITING FALSE CONCLUSIONS ABOUT NATURAL EVENTS.** 

Knowledge of which the credibility of a profession is based must be objective and verifiable (testable) rather than subjective and untestable.

**SCIENCE** is a mode of controlled inquiry to develop an objective, effective, and credible way of knowing.

The assumptions one makes regarding the basic qualities of human nature (that is, cognitive, affective, behavioral, and physiological processes) affect how one conceptualizes human behavior.

The two basic functions of scientific approach are 1) advance knowledge, to make discoveries, and to learn facts in order to improve some aspect of the world, and 2) to establish relations among events, develop theories, and this helps professionals to make predictions of future events.

Research Design And Counseling

Heppner, Kivlighan, and Wampold

A **THEORY** is a large body of interconnected propositions about how some portion of the world operates; a **HYPOTHESIS** is a smaller body of propositions. **HYPOTHESES** are smaller versions of theories. Some are derived or born from theories. Others begin as researchers' hunches and develop into theories.

The **PHILOSOPHY OF SCIENCE** decrees we can only falsify, not verify (prove), theories because we can never be sure that any given theory provides the best explanation for a set of observations.

Research Method In Social Relations
Kidder

**THEORIES** are not themselves directly proved or disproved by research. Even **HYPOTHESES** cannot be proved or disproved directly. Rather, research may either support or fail to support a particular hypothesis derived from a theory.

Scientific research has four general goals: (1) to describe behavior, (2) to predict behavior, (3) to determine the causes of behavior, and (4) to understand or explain behavior.

Methods In Behavioral Research; Cozby

In order to verify the reliability and validity of scientific research it is important to replicate the results. It is the preponderance of evidence that establishes/supports the theory.

http://allpsych.com/researchmethods/replication.html

## **Marianist Educational Values**

Chaminade University is a Catholic, Marianist University. The five characteristics of a Marianist education are:

#### 1. Educate for Formation in Faith

Catholic Universities affirm an intricate relationship between reason and faith. As important as discursive and logical formulations and critical thinking are, they are not able to capture all that can be and ought to be learned. Intellectual rigor coupled with respectful humility provide a more profound preparation for both career and life. Intellectual rigor characterizes the pursuit of all that can be learned. Respectful humility reminds people of faith that they need to learn from those who are of other faiths and cultures, as well as from those who may have no religious faith at all.

#### 2. Provide an Excellent Education

In the Marianist approach to education, "excellence" includes the whole person, not just the technician or rhetorician. Marianist universities educate whole persons, developing their physical, psychological, intellectual, moral, spiritual and social qualities. Faculty and students attend to fundamental moral attitudes, develop their personal talents and acquire skills that will help them learn all their lives. The Marianist approach to education links theory and practice, liberal and professional education. Our age has been deeply shaped by science and technology. Most recently, information and educational technologies have changed the way faculty and students research and teach. At Marianist Universities, two goals are pursued simultaneously: an appropriate use of information technology for learning, and the enhancement of interaction between students and teachers. As Catholic, Marianist Universities seek to embrace diverse peoples and understand diverse cultures, convinced that ultimately, when such people come together, one of the highest purposes of education is realized: a human community that respects every individual within it.

#### 3. Educate in Family Spirit

Known for their strong sense of community, Marianists have traditionally spoken of this sense as "family spirit." Marianist educational experience fosters the development of a community characterized by a sense of family spirit that accepts each person with loving respect, and draws everyone in the university into the challenge of community building. Family spirit also enables Marianist universities to challenge their students, faculty and staff to excellence and maturity, because the acceptance and love of a community gives its members the courage to risk failure and the joy of sharing success.

#### 4. Educate for Service, Justice, and Peace

The Marianist approach to higher education is deeply committed to the common good. The intellectual life itself is undertaken as a form of service in the interest of justice and peace, and the university curriculum is designed to connect the classroom with the wider world. In addition, Marianist universities extend a special concern for the poor and marginalized and promote the dignity, rights and responsibilities of all people.

# 5. Educate for Adaptation to Change

In the midst of rapid social and technological change, Marianist universities readily adapt and change their methods and structures so that the wisdom of their educational philosophy and spirituality may be transmitted even more fully. "New times call for new methods," Father Chaminade often repeated. The Marianist university faces the future confidently, on the one hand knowing that it draws on a rich educational philosophy, and on the other fully aware for that philosophy to remain vibrant in changing times, adaptations need to be made.

Selected from *Characteristics of Marianist Universities: A Resource Paper*, Published in 1999 by Chaminade University of Honolulu, St. Mary's University and University of Dayton

Each of these characteristics is integrated, to varying degrees, in this course.

Course Website Address (Canvas): <a href="https://chaminade.instructure.com/">https://chaminade.instructure.com/</a>

**Hardware Requirements:** Canvas is accessible from both PC and Mac computers with a reliable internet connection. You will also need to be able to access audio and video files. Subsequently, you should have access to speakers or headphones that allow you to hear the audio.

**Software Requirements:** You will need to have some ability to listen to audio in an mp3 format, watch videos in mp4 format, stream online videos, and read .pdf files. There are a number of free software online that can be

downloaded for free. If you need assistance with locating software please feel free to contact me or Chaminade Help Desk at helpdesk@chaminade.edu or (808) 735-4855.

Technical Assistance for Canvas Users:

- Search for help on specific topics or get tips in <u>Canvas Students</u>
- <u>Live chat with Canvas Support for students</u>
- Canvas Support Hotline for students: +1-833-209-6111
- Watch this video to get you started
- Online tutorials: click on "Students" role to access tutorials
- Contact the Chaminade IT Helpdesk for technical issues: helpdesk@chaminade.edu or call (808) 735-4855

#### **Instructor and Student Communication**

Questions for this course can be emailed to the instructor at abby.halston@chaminade.edu. Communicated under safe in-person conditions and phone or zoom conferences can be arranged.

#### **Disability Access**

If you need individual accommodations to meet course outcomes because of a documented disability, please speak with me to discuss your needs as soon as possible so that we can ensure your full participation in class and fair assessment of your work. Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from Kōkua 'Ike: Center for Student Learning by the end of week three of the class, in order for instructors to plan accordingly. If a student would like to determine if they meet the criteria for accommodations, they should contact the Kōkua 'Ike Coordinator at (808) 739-8305 for further information (ada@chaminade.edu).

## **Title IX Compliance**

Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct, physical and/or psychological abuse, I am a mandated reported and must report the matter to the Title IX Coordinator. If you or someone you know has been harassed or assaulted, you can find the appropriate resources by visiting Campus Ministry, the Dean of Students Office, the Counseling Center, or the Office for Compliance and Personnel Services.

#### **Attendance Policy**

It is expected that you will attend class and/or be active on Canvas weekly. Regarding in-person classes, if you feel ill please do not come to your in-person class. Your grade will not be affected by this. Health and safety for you and your peers are very important. Please let your instructor know in advance to the start of class if you are unable to attend.

#### **Academic Honesty**

Academic honesty is an essential aspect of all learning, scholarship, and research. It is one of the values regarded most highly by academic communities throughout the world. Violations of the principle of academic honesty are extremely serious and will not be tolerated.

Students are responsible for promoting academic honesty at Chaminade by not participating in any act of dishonesty and by reporting any incidence of academic dishonesty to an instructor or to a University official. Academic dishonesty may include theft of records or examinations, alteration of grades, and plagiarism.

Questions of academic dishonesty in a particular class are first reviewed by the instructor, who must make a report with recommendations to the Dean of the Academic Division. Punishment for academic dishonesty will be determined by the instructor and the Dean of the Academic Division and may range from an 'F' grade for the work in question to an 'F' for the course to suspension or dismissal from the University.

#### **Tentative Course Schedule**

Week	Tuesday	Thursday	Due Canvas Sundays by 11:59pm
1	Jan 11	Jan 13	January 16, 2022
	Introduction to	Chapter 1 Lecture	Chapter 1 Quiz
	Course		Research Course Requirements
2	Jan 18	Jan 20	January 23, 2022
	Chapter 2 Lecture	Group work: research	Chapter 2 Quiz
		proposal drafting	Library Exercise
		*Due 1/20	Illustrative Article: Laptops in Class
3	Jan 25	Jan 27	January 30, 2022
	Chapter 3 Lecture	Ethics Videos	Chapter 3 Quiz
			Research Ethics Questions Exercise
			Illustrative Article: Replication of Milgram
			Draft Research Question, Hypothesis and Prediction
4	D 1 4		Statement
4	Feb 1	Feb 3	February 6, 2022
	Lecture Chapter 4	Group work:	Chapter 4 Quiz
		Hypothesis & Operational Definition	Illustrate Article: Studying Behavior Variables and Experimental Grouping Exercise
		Exercise Due 2/3	
5	Feb 8	Feb 10	Proposal Article reviews February 13, 2022
3	Lecture Chapter 5	Group work:	Chapter 5 Quiz
	Lecture Chapter 3	Valid and Reliable	Illustrative article: Measurement concepts
		scales	Construct Validity Exercise
		Due 2/10	Research Article Reviews
6	Feb 15	Feb 17	February 20, 2022
	Lecture Chapter 6	Group work:	Chapter 6 Quiz
	Zecture chapter o	Systematic Observation	Illustrative Article: Observational Methods
		Due 2/17	Discussion exercise: Observation in Field Experiments
7	Feb 22	Feb 24	February 27, 2022
	Chapter 7 Lecture	Group work: Survey	Chapter 7 Quiz
	1	questions	Illustrative Article: Conducting Experiments- Alcohol Use
		Due 2/24	Question Wording Exercise
8	March 1	March 3	March 6, 2022
	Chapter 8 Lecture	Group work: Pepsi	Chapter 8 Quiz
		Taste Test	Experiment Exercise: Music on Dart Throwing
		Due 3/3	Illustrative Article: Experimental Design
9	March 8	March 10	March 13, 2022
	Chapter 9 Lecture	Group Research work	Chapter 9 Quiz
			Illustrative Article: Conducting Experiments Bicycle Helmets
			Discussion exercise: Debriefing the Asch Experiment
10	March 15	March 17	March 20, 2022
	Chapter 10 Lecture	Group work:	Chapter 10 Quiz
		Experimental Design	Illustrative article- Complex Designs
11	G . D .	Identification Due 3/17	
11			
1	Spring Break	Spring Break	
12	No Class	No Class	April 2 2022
12	No Class March 29	No Class March 31	April 3, 2022 Chapter 11 & 12 Quizzes
12	No Class March 29 Chapters 11 & 12	No Class  March 31  Group work: Research	Chapter 11 & 12 Quizzes
12	No Class March 29	No Class  March 31  Group work: Research Designs	Chapter 11 & 12 Quizzes Illustrative Article: A Longitudinal Study
	No Class March 29 Chapters 11 & 12 Lectures	No Class  March 31 Group work: Research Designs Due 3/31	Chapter 11 & 12 Quizzes Illustrative Article: A Longitudinal Study Exercise: Describing Correlational Coefficients
12	No Class  March 29 Chapters 11 & 12 Lectures  April 5	No Class  March 31 Group work: Research Designs Due 3/31  April 7	Chapter 11 & 12 Quizzes Illustrative Article: A Longitudinal Study Exercise: Describing Correlational Coefficients April 10, 2022
	No Class March 29 Chapters 11 & 12 Lectures	No Class  March 31 Group work: Research Designs Due 3/31  April 7 Group work: Statistical	Chapter 11 & 12 Quizzes Illustrative Article: A Longitudinal Study Exercise: Describing Correlational Coefficients  April 10, 2022 Chapter 13 Quiz
	No Class  March 29 Chapters 11 & 12 Lectures  April 5	No Class  March 31 Group work: Research Designs Due 3/31  April 7 Group work: Statistical Decisions Exercise	Chapter 11 & 12 Quizzes Illustrative Article: A Longitudinal Study Exercise: Describing Correlational Coefficients April 10, 2022
13	No Class  March 29 Chapters 11 & 12 Lectures  April 5 Chapter 13 Lecture	No Class  March 31 Group work: Research Designs Due 3/31  April 7 Group work: Statistical Decisions Exercise Due 4/7	Chapter 11 & 12 Quizzes Illustrative Article: A Longitudinal Study Exercise: Describing Correlational Coefficients  April 10, 2022 Chapter 13 Quiz Final Proposal and Recorded Presentation
	No Class  March 29 Chapters 11 & 12 Lectures  April 5	No Class  March 31 Group work: Research Designs Due 3/31  April 7 Group work: Statistical Decisions Exercise	Chapter 11 & 12 Quizzes Illustrative Article: A Longitudinal Study Exercise: Describing Correlational Coefficients  April 10, 2022 Chapter 13 Quiz

			Illustrative Article: Generalizing Results
15	April 19	April 21	
	Student	Student Presentations	
	Presentations		
16	April 26	April 28	
	Student	Student Presentations	
	Presentations		
17	May 3	May 5	
	Final	Last day for Late Work	