



# Chaminade University OF HONOLULU

**Statistics, Research, and Evaluation**  
Chaminade University Honolulu  
3140 Waiālae Avenue - Honolulu, HI 96816

**Course Number:** PSY 616  
**Course Title:** Statistics, Research, and Evaluation  
**Department Name:** Psychology  
**College/School/Division Name:** School of Education and Behavioral Sciences  
**Term:** Winter Graduate 2023  
**Course Credits:** 3  
**Class Location:** Online

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**Office Hours:** By appointment please email

## **University Course Catalog Description**

This course covers the fundamentals of research design, statistical analysis, and evaluation of research results within the counseling context. Computer applications for statistical analyses are utilized.

## **Marianist Values**

This class represents one component of your education at Chaminade University of Honolulu. An education in the Marianist Tradition is marked by five principles and you should take every opportunity possible to reflect upon the role of these characteristics in your education and development:

1. Education for formation in faith
2. Provide an integral, quality education
3. Educate in family spirit
4. Educate for service, justice and peace
5. Educate for adaptation and change

## **Native Hawaiian Values**

Education is an integral value in both Marianist and Native Hawaiian culture. Both recognize the transformative effect of a well-rounded, value-centered education on society, particularly in seeking justice for the marginalized, the forgotten, and the oppressed, always with an eye toward God (Ke Akua). This is reflected in the ‘Olelo No’eau (Hawaiian proverbs) and Marianist core beliefs:

1. Educate for Formation in Faith (Mana) E ola au i ke akua (‘Olelo No’eau 364) May I live by God
2. Provide an Integral, Quality Education (Na’auao) Lawe i ka ma’alea a kū’ono’ono (‘Olelo No’eau 1957) Acquire skill and make it deep

3. Educate in Family Spirit ('Ohana) 'Ike aku, 'ike mai, kōkua aku kōkua mai; pela iho la ka nohana 'ohana ('Ōlelo No'eau 1200) Recognize others, be recognized, help others, be helped; such is a family relationship
4. Educate for Service, Justice and Peace (Aloha) Ka lama kū o ka no'eau ('Ōlelo No'eau 1430) Education is the standing torch of wisdom
5. Educate for Adaptation and Change (Aina) 'A'ohe pau ka 'ike i ka hālau ho'okahi ('Ōlelo No'eau 203) All knowledge is not taught in the same school

### **Required Learning Materials**

- 1) Cozby, P. C. & Bates, S.C. (2018). *Methods in behavioral research* (13th ed.). New York: McGraw Hill.
- 2) Course text: Salkind, Statistics for People Who (Think They) Hate Statistics 7e
- 3) SPSS Software- Version 24 or higher

Course Companion site: <https://edge.sagepub.com/salkindfrey7e/student-resources>

Action plan, Learning Objectives, Practice Quizzes, eFlashcards, SAGE Journal Articles, Data Sets, Video and Multimedia.

### **MSCP Program Learning Outcomes:**

1. Identify core counseling theories, principles, concepts, techniques and facts.
2. Identify counseling theories, principles, concepts, techniques and facts in (Mental Health, Marriage/Family or School) counseling. (the specific emphasis would be stated for each of the emphasis areas)
3. Facilitate the counseling process with clients.
4. Identify the relationship between adaptation and change and the counseling process.

### **Course Learning Outcomes**

By the completion of this course, students will:

1. Explain the difference between populations and samples, and what is associated with each in terms of research issues and statistical techniques (PLO1).
2. Utilization of SPSS in data entry, coding of variables, performing statistical functions, and producing output for analysis (PLO1).
3. Application of the scientific method to assess relationships between variables and hypothesis testing (PLO1).
4. Identify ethical issues in psychological research and potential sources of ethical violations when conducting research (PLO1).
5. Develop hypotheses and utilize research methodologies that can be tested through a research proposal design project (PLO 2 & 4).

### **Assessment**

#### **1. Weekly Chapter Quizzes- CLO 1-4**

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

#### **2. Illustrative article reviews: CLO 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.

### 3. Discussion Questions: CLO 5

Selected units will have discussion questions that allow for demonstration of knowledge of the key chapter concepts, community building, reflection, and critical thinking. Grading includes original posting and response to peers throughout the week (Original post due by Wednesdays and response to peers due by Saturdays).

### 4. Unit Exercises (includes SPSS)- CLO 1-4

Selected units will have exercises to help to understand SPSS analysis/input, 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.

### 5. Research Proposal = CLO 5

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

- **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.
- **Introduction**
  - ✓ **Literature Review** (How problem has been investigated and how past research has been applied to the identified problem)
  - ✓ **Statement of the problem** (Why the identified problem stills needs to be investigated)
  - ✓ **Guiding Theory** (What theory helps to explain why the identified problem is occurring, to make an outcome predictions, and helps us to organize empirical findings in our discipline)
  - ✓ **Research question, Hypothesis, and Prediction Statement**
- **Methodology**
  - ✓ **Operational Definitions** (Independent and Dependent variables for this study- How has the existing literature defined these variables and how will they be measured)
  - ✓ **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, should include visual diagram detailing stages of research)
  - ✓ **Study Survey Instrument** (Describe your scale/survey and data collection process. This section should also present how your instrument has been tested for reliability and validity. You will need to include a copy of your instrument in your research proposal appendix).
- **Reference page (no less than 8 peer-reviewed journal articles)**
  - This Research Proposal must be formatted using APA style 7<sup>th</sup> edition.
  - Refer to Research Proposal rubric via Canvas to view the expectations of this assignment.

### Assessment

1. Weekly chapter quizzes: 22 @ 5 points each= 110 points possible
2. Illustrative article reviews: 4 @ 26 points possible
3. Discussion Questions: 3 @ 6 points each= 18 points possible
4. SPSS Unit Exercises: 14 @ 67 possible points
5. Research proposal paper: 1 @ 100 points

**Total= 321 points possible**

## **Grading Scale**

A =90-100

B =80-89

Letter grades are given in all courses except those conducted on a credit/no credit basis. Grades are calculated from the student's daily work, class participation, quizzes, tests, term papers, reports and the final examination. They are interpreted as follows:

A Outstanding scholarship and an unusual degree of intellectual initiative

B Superior work done in a consistent and intellectual manner

C Average grade indicating a competent grasp of subject matter

D Inferior work of the lowest passing grade, not satisfactory for fulfillment of prerequisite course work

F Failed to grasp the minimum subject matter; no credit given

## **Late Work Policy**

All assignment will be due in canvas by 11:59 pm on the due dates specified in this syllabus. Late submissions of assignments will be accepted until the last day of class. Regardless of the reason, all late assignments will receive a 50% point deduction irrespective of how late it is submitted.

## **Grades of "Incomplete"**

A student in good standing in a course, may petition to the instructor for an "I" grade. This grade is appropriate only if extraordinary conditions beyond the control of the student have led to an inability to complete course requirements. When submitting a grade, the "I" must be accompanied by the alternative grade that will be automatically assigned after 30 days. These include, IB, IC, ID and IF. If only an "I" is submitted, the default grade is F. The completion of the work, evaluation, and reporting of the final grade is due within 30 days after the end of the term. The time limit may extend under exceptional circumstances with approval. Any student who has incomplete grades into the next semester will be required to review their course schedule with their academic adviser.

## **Technical Assistance for Canvas Users:**

- Search for help on specific topics or get tips in Canvas Students
- Live chat with Canvas Support for students
- 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](mailto:helpdesk@chaminade.edu) or call (808) 735-4855

## **ACA Ethical guidelines for Self-Care and Self-Monitoring**

Given the 1) long-standing issue of problematic self-care and self-monitoring in the field of counseling, clinical psychology, and psychotherapy, 2) chronic stress demonstrated by many students in the current Covid-19 ever-changing, and uncertain environment, 3) fact that there appears there will be numerous stressed out clients as a result of the Covid 19 ever-changing, and uncertain environment, and 4) fact that the ACA requires self-care and self-monitoring as part of their ethical guidelines, all courses will include and address the following ACA guidelines in all of their syllabi. These guidelines also apply to all faculty and staff teaching in the MSCP program.

## **ACA 2014 Code of Ethics**

### **Section C Professional Responsibility**

#### **Introduction**

... counselors engage in self-care activities to maintain and promote their own emotional, physical, mental, and spiritual well-being to best meet their professional responsibilities.

### **C.2.g. Impairment**

Counselors monitor themselves for signs of impairment from their own physical, mental, or emotional problems and refrain from offering or providing professional services when impaired. They seek assistance for problems that reach the level of professional impairment, and, if necessary, they limit, suspend, or terminate their professional responsibilities until it is determined that they may safely resume their work. Counselors assist colleagues or supervisors in recognizing their own professional impairment and provide consultation and assistance when warranted with colleagues or supervisors showing signs of impairment and intervene as appropriate to prevent imminent harm to clients.

<https://www.counseling.org/Resources/aca-code-of-ethics.pdf>

### **Chaminade Counseling Center:**

Students may consider counseling when they may need an unbiased perspective on issues they are facing or when they are unable to manage their own difficulties independently and their day-to-day functioning is being impacted. For more information regarding the Counseling Center services, please visit:

<https://chaminade.edu/student-life/counseling-center/counseling-services/>

Email: [counselingcenter@chaminade.edu](mailto:counselingcenter@chaminade.edu)

Phone: 808-735-4845.

### **Kokua Ike: Tutoring & Learning Services**

Kokua Ike provides access to free one-on-one tutoring for students, online tutoring via TutorMe, and manages test administration services. Information regarding the tutoring center can be found at <https://chaminade.edu/student-success/kokua-ike/>

Email: [tutoring@chaminade.edu](mailto:tutoring@chaminade.edu)

Phone: 808-739-8305

### **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](mailto: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 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.

### **Credit Hour Policy**

The unit of semester credit is defined as university-level credit that is awarded for the completion of coursework. One credit hour reflects the amount of work represented in the intended learning outcomes and verified by evidence of student achievement for those learning outcomes. Each credit hour earned at Chaminade University should result in 45 hours of engagement. This equates to one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester, 10 week term, or equivalent amount of work over a different amount of time. Direct instructor engagement and out-of-class work result in total student engagement time of 45 hours for one credit.

The minimum 45 hours of engagement per credit hour can be satisfied in fully online, internship, or other specialized courses through several means, including (a) regular online instruction or interaction with the faculty

member and fellow students and (b) academic engagement through extensive reading, research, online discussion, online quizzes or exams; instruction, collaborative group work, internships, laboratory work, practica, studio work, and preparation of papers, presentations, or other forms of assessment. This policy is in accordance with federal regulations and regional accrediting agencies.

### **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.

*The above quotes were taken directly from:*

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.

*The above quotes were taken directly from:*

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.

*The above quotes were taken directly from:*

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.

*The above quotes were taken directly from:*

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



## Schedule

Date	Textbook Reading	Assignments due to Canvas	Due Date By 11:59pm
<b>Week 1</b> 1/9/23	Cozby/ Bates Chapter 2, 3 & 4	Quiz Chapters 2, 3, & 4 Research Course Requirements Discussion Illustrative Article: Replication of Milgram <b>Research Question/Hypothesis/Prediction</b>	<b>1/15/23</b>
<b>Week 2</b> 1/16/23	Cozby/Bates Chapters 5, 6 & 7	Quiz Chapters 5, 6, & 7 Survey Question Review Discussion Illustrate Article: Conducting Experiments- Alcohol Use <b>Research Article Reviews Exercise</b>	<b>1/22/23</b>
<b>Week 3</b> 1/23/23	Cozby/Bates Chapters 8 & 9	Quiz Chapters 8 & 9 Debriefing the Asch Experiment Discussion Illustrate Article: Conducting Experiments- Bicycle Helmets	<b>1/29/23</b>
<b>Week 4</b> 1/30/23	Cozby/Bates Chapter 10 & 11	Quiz Chapter 10 & 11 Illustrate Article: A Longitudinal Study Exercise: Experiment Design Identification	<b>2/5/23</b>
<b>Week 5</b> 2/6/23	Salkind Chapters 2, 3 & 5	Chapters 2, 3 & 5 Quizzes- SPSS Chapter 2 Measures of Central Tendency SPSS Chapter 3 Measures of Variability SPSS Chapter 5 Correlation Coefficient	<b>2/12/23</b>
<b>Week 6</b> 2/13/23	Salkind Chapters 7, 8 & 9	Chapters 7, 8 & 9 Quizzes- Hypothesis Null/Research Exercise SPSS Chapter 8: Z scores Type I and Type II Errors Exercise	<b>2/19/23</b>
<b>Week 7</b> 2/20/23	Salkind Chapters 10, 11, & 12	Chapters 10, 11 & 12 Quizzes- SPSS Chapter 10 One Sample t- Test SPSS Chapter 11 Independent Samples t-Test	<b>2/26/23</b>



		SPSS Chapter 12 Dependent Samples t-Test	
<b>Week 8</b> <b>2/27/23</b>	Salkind Chapters 13 & 15	Chapters 13 & 15 Quizzes- SPSS Chapter 13: One way ANOVA SPSS Chapter 15: Bivariate Correlations	<b>3/5/23</b>
<b>Week 9</b> <b>3/6/23</b>	Salkind Chapters 16& 17	Chapters 16 & 17 Quizzes- SPSS Chapter 16: Linear Regression SPSS Chapter 17 Chi-Square	<b>3/12/23</b>
<b>Week 10</b> <b>3/13/23</b>		<b>Final Research Proposal</b>	<b>3/19/23</b>