

CHAMINADE UNIVERSITY

EPSY 712: Program Evaluation, Statistics, and Psychometric Methods

Term

Class Time: Hybrid—see Course Schedule

Location: Canvas (Online) and Zoom (synchronous)

Zoom location for all “in-person” sessions:

<https://hawaii.zoom.us/j/91504379427?pwd=b0FIMFVkslFqRCttSlZwMjNXNTBGdz09>

Passcode: EPSY

Instructor: Dr. Margary Martin

Email: margarymartin@chaminade.edu

Office Telephone: 808-339-5601

Office Hours: By appointment. Sign up at <https://live.vcita.com/site/mmartin/scheduling>

Required Texts:

Giancola, S. P. (2021). *Program evaluation embedding evaluation into program design and development*. SAGE.

Pallant, J. (2020). SPSS Survival Manual. In *Routledge eBooks*.
<https://doi.org/10.4324/9781003117445>

Additional readings on Canvas

Catalog Course Description

Surveys the different types of program evaluation, including needs assessment, formative research, process evaluation, monitoring of outputs and outcomes, impact assessment, and cost analysis. Participants gain experience designing conceptual frameworks, developing appropriate indicators, collecting data, analyzing results, and developing evaluation plans to measure impact

EdD in Educational Psychology Program Learning Outcomes (PLOs)

Educational Psychology students will:

1. Administer psychological and educational assessments and effectively communicate the results to a variety of audiences.
2. Provide an innovative, research-based, and real-world curriculum that focuses on preparing individuals to meet the holistic and mental health needs of PK-12 students.
3. Evaluate scientific knowledge and research regarding the provision of mental health, psychological, and educational interventions and strategies, prevention approaches, wellness approaches, and the use of assessments.
4. Synthesize the value of adaptation and change with applied 21st century leadership, supervision, and consultation knowledge and skills for diverse and complex organizational systems.

Program Linking Statement

This course develops and assesses the skills and competencies for the Psychology program student learning outcome 1) Students will identify key concepts, principles, and overarching themes in psychology (PLO 1), 2) Students will exhibit the value of adaptation and change through the critical thinking process of interpretation, design, and evaluation of psychological research (PLO 2), 3) Students will exhibit effective writing and oral communication skills within the context of the field of psychology (PLO 3), and 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 (PLO 4).

Articulation of Characteristics and Values

EPSY 712 Program Evaluation, Statistics, and Psychometric Methods is guided by the Marianist Educational Value of Educate for Adaptation and Change. Father Chaminade said, "new times call for new methods." This could not be truer for the field of Educational Psychology, which seeks to identify and understand why we do what we do and think what we think within the context of diversity. This value guides this course through its focus on the development of:

1. Flexible thinking;
2. Being respectful of differences;
3. Critical thinking; and
4. Open-mindedness.

This will be found in our class discussions and in our capstone project.

Course Learning Outcomes

Educational Psychology students will:

1. Develop, apply, and interpret findings from statistical and psychometric methods to examine for problems of practice and continuous improvement in school settings. (PLO 1)
2. Evaluate methods and approaches to program evaluations. (PLO 3)
3. Develop appropriate evidence and researched based evaluation techniques to problems of practice in school settings. (PLO 2)

Course Approach

We will be utilizing an online seminar approach; thus, we will be incorporating class discussions via our online format in Canvas and/or Zoom. Students must complete the readings prior to posting any discussion material; otherwise, the discussions will not be informed ones. Due to the nature of the material we are discussing, there is likely to be some lively discussion and some disagreement on issues. In addition, some people may feel uncomfortable or upset by some of the material. As such, we want to make sure to follow these ground rules:

- Acknowledge that people in our culture have different experiences based on race, ethnicity, class, sex, age, and sexuality.
- Think psychologically about the issues we tackle and be prepared to critically analyze your own opinions and beliefs.
- Agree that this course should be a place where no one is made to feel embarrassed or ashamed. Disrespectful behavior will not be tolerated. No attacks that might be deemed

personal should be made on the discussion boards. However, healthy discussion and debate is welcome and encouraged. We do not have to agree with one another, but we must be able to discuss our differences in a respectful manner.

In terms of general participation, students are responsible for all material posted each week. This course will require a fair amount of reading and video viewing, so do make sure to plan your study time wisely. Prior to any class discussions, students are expected to have engaged the material such that they are prepared with questions and reflections. This allows for more coherent participation in the course discussions. Although specific readings and videos will be assigned for each week, students are encouraged to consider and discuss comparisons and disparities among the readings and videos.

Course Website Address (Canvas): <https://chaminade.instructure.com/>

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.

You will further need SPSS for either IOS or Windows as appropriate for your operating system.

Course Requirements

Assignments:

| <u>Category</u> | <u>% of Course Grade</u> |
|---|--------------------------|
| Participation (CLO, 1,2,3) | 10% |
| Statistic Modules(CLO 1) | 30% |
| Assignments (CLO 2, 3) | 20% |
| Evaluation Project Components (CLO 1,2,3) | <u>40%</u> |
| | 100% |

Grading

| | | | |
|--------------|---|------|---|
| 90% | - | 100% | A |
| 80% | - | 89% | B |
| 70% | - | 79% | C |
| 69% or below | | | F |

Attendance

Students are expected to attend regularly all courses for which they are registered. Students should notify their instructor when illness prevents them from attending class and make arrangements to complete missed assignments. Notification may be done by calling the instructor's campus

extension or the Psychology program office (735-4751 or 739-8393). It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course will receive a failing grade.

Unexcused absences equivalent to more than three days of classes may lead to a grade reduction for the course. Any absence exceeding three days or more must be reported to the Associate Provost and the Records Office by the instructor.

Federal regulations require continued attendance for continuing payment of financial aid. If attendance is not continuous, financial aid may be terminated. When illness or personal reasons necessitate continued absence, the student should officially withdraw from all affected courses. Anyone who stops attending a course without official withdrawal may receive a failing grade.

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 37.5 hours of engagement. For example, in a one credit hour traditional face to face course, students spend 50 minutes in class per week for 15 weeks, resulting in a minimum of 12.5 instructional hours for the semester. Students are expected to engage in reading and other assignments outside of class for at least 2 additional hours per week, which equals an additional 25 hours. These two sums result in total student engagement time of 37.5 hours for the course, the total engagement time expected for each one credit course at Chaminade.

The minimum 37.5 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.

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.

Academic Conduct Policy

From the 2018-2019 Undergraduate Academic Catalog (p. 42):

Any community must have a set of rules and standards of conduct by which it operates. At Chaminade, these standards are outlined so as to reflect both the Catholic, Marianist values of the institution and to honor and respect students as responsible adults. All alleged violations of the community standards are handled through an established student conduct process, outlined in the Student Handbook, and operated within the guidelines set to honor both students' rights and campus values.

Students should conduct themselves in a manner that reflects the ideals of the University. This includes knowing and respecting the intent of rules, regulations, and/or policies presented in the Student Handbook, and realizing that students are subject to the University's jurisdiction from the time of their admission until their enrollment has been formally terminated. Please refer to the Student Handbook for more details. A copy of the Student Handbook is available on the Chaminade website.

For further information, please refer to the Student Handbook: <https://studentaffairs.chaminade.edu/wp-content/uploads/sites/28/2018-19-NEW-STUDENT-HANDBOOK.pdf> (Links to an external site.) (Links to an external site.)

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 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.

Marianist Educational Values

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

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.

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.

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.

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.

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 however, the main focus is on the Marianist value of educating for adaptation and change. Psychology, by its nature, looks at how people adapt and change depending on the environment and circumstances that they are in. Cross cultural psychology looks at the impacts of culture on human behavior and helps us to understand how people are able to adapt and change as cultures change and the world becomes more of a global community.

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 ('Olelo 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 ('Olelo 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 ('Olelo No'eau 203) All knowledge is not taught in the same school

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 in 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> (Links to an external site.)

Course Schedule

SUBJECT TO CHANGE ☺

| Date | Type | Topic | Readings Due Prior to Class | Assignments Due Sunday by 11.59 pm unless otherwise noted |
|--|-------------------------------------|--|--|---|
| Pre-Course Prep | | Course Pre-Work | Read ahead— <i>Evaluation</i> Chapters 1 & 2 | Complete Pre-Course Questionnaire by April 5 |
| Week 1: April 8-14 Introduction to Program Evaluation | | | | |
| April 9 (Section 1) | Zoom | Course Introduction and Structure | <i>Evaluation</i> Chapters 1 and 2 | Review Syllabus |
| April 11 (Section 2) | | | | |
| Week 2 April 15-21 | | | | |
| April 15-21 | <i>Canvas</i> EVAL Online Lesson | Evaluation Ethics, Ideologies, & Approaches | <i>Evaluation</i> Chapters 3-4 | Assignment #1 DUE: Evaluation approach infographic Begin Assignment #4: CITI Training Certificates (Due by May 25th) |
| April 15-21 | <i>Canvas</i> STATS Module 1 | Introduction to Statistics in Educational Psychology | <i>SPSS Manual</i> Chapters 1-3 | STATS Quiz 1 |
| Week 3 April 22-28 | | | | |

| Date | Type | Topic | Readings Due Prior to Class | Assignments Due Sunday by 11.59 pm unless otherwise noted |
|------------------------------|---------------------------------|--|--------------------------------------|---|
| April 23rd/25th | Zoom | DEFINE -Part 1 Understanding the Program; Program Theory | <i>Evaluation</i> Chapter 5 | PC #1 DUE: Program narrative (bring to class) |
| April 22-28 | Canvas EVAL Online Lesson | DEFINE - Part 2: Modeling the Program Logic Modeling | <i>Evaluation</i> Chapter 6 | PC #2a DUE: Draft logic model |
| Week 4 April 29-May 5 | | | | |
| April 30th | Zoom-Optional | Statistics Support | | |
| April 29- May 5 | Canvas EVAL Online Lesson | PLAN - Part 1: Planning the Evaluation | <i>Evaluation</i> Chapter 7 | PC #2b DUE: Final logic model PC #3 DUE: Program theory draft |
| April 29-5 | <i>Canvas</i> STATS Module 2 | Descriptive Statistics and Frequencies | <i>SPSS Manual</i> Chapters 6 & 7 | STATS Quiz 2 |
| Week 5 May 6-12 | | | | |
| May 6-12 | Canvas EVAL Online Lesson | PLAN Evaluation Design and Methods | <i>Evaluation</i> Chapter 8 | PC #4 DUE: Evaluation questions PC #5 DUE: Evaluation design <i>Note: We will be focusing primarily on quantitative methods for this class and qualitative in the Action Research Class</i> |

| Date | Type | Topic | Readings Due Prior to Class | Assignments Due Sunday by 11.59 pm unless otherwise noted |
|----------------------------------|------------------------------|---|---|---|
| May 6-12 | Canvas STATS Module 3 | Recoding & calculating new variables; Choosing the right statistics | <i>SPSS Manual</i> Chapters 8 & 10 | STATS Quiz 3 Last Day to complete Modules 1-3 |
| Week 6 May 13-19 | | | | |
| May 14th/16th | Zoom | IMPLEMENT - Part 1: Implementing the Evaluation; Instrument Design | <i>Evaluation</i> Chapter 9 SPSS Chapter 10 | Assignment #2 DUE: Methods Summary 5/19 (bring working draft to class) |
| May 13-19 | Canvas STATS Module 4 | Psychometrics and Correlations | <i>SPSS Manual</i> Chapter 9 & 11 | STATS Quiz 4 |
| Week 7 May 20-26 | | | | |
| May 20-26 | Canvas EVAL Online Lesson | IMPLEMENT - Part 2: Analyzing the Data; Quantitative Data Analysis; Qualitative Data Analysis | <i>Evaluation</i> Chapter 10 | PC #6a DUE: Update evaluation matrix |
| May 23rd | Zoom-Optional | Statistics Support | | |
| May 20-26 | Canvas STATS Module 5 | Comparing Groups Pt 1: Non-Parametric Measures and Relative Risk | <i>SPSS Manual</i> Chapter 16 NIH tutorial Calculating Risk in Excel | STATS Quiz 5 |
| Week 8 May 28-May 31 | | | | |

| Date | Type | Topic | Readings Due Prior to Class | Assignments Due Sunday by 11.59 pm unless otherwise noted |
|-------------------|--|---|---------------------------------------|---|
| May 28th/30th | Zoom | Interpreting and Communicating Findings | <i>Evaluation</i> Chapter 11 & 12 | PC #6b DUE: Final evaluation matrix Assignment #3 DUE: Evaluation Critique |
| May 28- May 31 | <i>Canvas</i> STATS Module 6 | Comparing Groups Pt 2: T-Test and One-Way ANOVA | | STATS Quiz 6 |
| Week 9 | June 3-June 7 | | | |
| June 6th | Zoom-Optional | Statistics and Evaluation Plan Support | | |
| June 3-7 | <i>Canvas</i> STATS Module 7 (OPTIONAL) | Multiple Regression and Two-Way ANOVA | <i>SPSS Manual</i> Chapter 13 & 19 | Last Day to complete Modules 4-6 Assignment #4: CITI Training Certificates: June 7 |
| Wrap Up | June 10 | | | |
| June 10 | Canvas | | | PC #7 DUE: Final Evaluation plan |
| June 10 | Canvas | | | STATS Final |