



EDUC 801: Quantitative Research Methods
School of Education & Behavioral Sciences
[Chaminade University Honolulu](https://www.chaminade.edu)
 Fall 2023 (October 2nd – December 11th)
 3 Credits

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Learning Materials:

- **Textbook (Required):** Harkiolakis, N. (2021). *Quantitative research methods: From theory to publication*. CreateSpace Independent Publishing Platform. ISBN: 9781543148138
- **GroupMe App:** A way to stay up-to-date with all class routines, assignments, and questions between you, your professor, and your classmates.
- **Google Drive/3-Ring Binder:** This is comprised of check for understanding, discussion posts, reflections, and all other assignments.



Additional Resources:

- Mathematical Research Articles [provided in some modules and should be saved for future reference]

Course Catalog Description:

Provides the foundational knowledge and skills to conduct quantitative research. Emphasis is placed on understanding quantitative methods and statistical techniques so that students can think critically about appropriate research designs, the collection and analysis of data, and the usefulness of statistics.

Mission Statement for Doctorate of Education in Organizational Leadership for Adaptation and Change

The program's mission is based on Marianist values and focused on developing strong leaders who use their knowledge and skills to value diversity, promote social justice, and help organizations adapt and change. Drawing on the Marianist Educational Values of formation in faith; quality education; family spirit; service, justice and peace; and adaptation and change, the program builds on a program of leadership that promotes continuous self-reflection and personal growth.

Marianist Values:

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

Program Learning Outcomes (PLOs):

1	Apply advanced knowledge and competencies of research and evaluation methods utilized by organizations.
2	Utilize advanced knowledge and competencies of leadership and innovation, which are grounded in social justice, ethical practices, and cultural awareness.
3	Use advanced knowledge and competencies related to how organizations and the people within them develop.
4	Integrate advanced knowledge and competencies of scholarly behaviors for designing, implementing, evaluating, and communicating research relevant to effective organizations.

Course Learning Outcomes (CLOs):

In EDUC 801, the goal is for students to acquire the following:

1	Review elementary statistics to use scientific and statistical thinking to make fact-based decisions to satisfy sound research questions. (PLO 1)
2	Explore the role of research questions and hypotheses and the ability to test them by applying statistical techniques to data. (PLO 1)
3	Apply principles and methods of research design and the skills to formulate research designs appropriate to a variety of leadership and social justice topics. (PLO 1)
4	Strengthen the ability to read and understand scholarly journal articles that utilize quantitative research methods and to accurately assess their contributions, strengths, and weaknesses. (PLO 1)

Assessment:

The assignments in this course are each designed to contribute in a different and significant way to your knowledge and experience relative to diagnosis and remediation of statistics and quantitative research. It is your responsibility to turn in all assignments on time before the due dates stated in Canvas and at the end of this syllabus. Late assignments will not be accepted, unless the instructor is contacted before the due date. A scoring rubric is provided with every assignment to ensure you know what is required to receive the score desired. Feedback and grades on all assignments are provided within 7 days of submission.

1. Participation Assignments – 0% of Final Grade

Module 1: [1 point]

- There is one participation assignment, described on Canvas, which contribute to your overall participation in this course: joining our class GroupMe with an initial post.

2. Harkiolakis Reflection (HR) / Discussion (HD) – 20% of Final Grade

[CLO 4]

Modules 1, 2: [3 points each]

- After reading the selected chapters of the Harkiolakis textbook, you will submit individual reflections and/or discuss with classmates about what you read in a discussion board.

3. Check for Understanding – 0% of Final Grade

[CLO 1 & 2]

Modules 3, 4, 6, 7, 8: [Not for a Grade]

- During specific modules, you should form small, collaborative groups with classmates to complete five questions regarding elementary statistics content. Although these are not for a grade, they are imperative to complete for understanding the big ideas in quantitative research articles.

4. Research Article Critiques – 40% of Final Grade

[CLO 4]

Modules 6, 7, 8, 9: [3 points each]

- During specific modules, you will be required to read and reflect on published research article(s) that used the statistical content discussed in the module.

5. Quantitative Research Proposal (QRP) – 40% of Final Grade

[CLO 2, 3, & 4]

Modules 2, 5, 8: [20 points]

This is the culminating assignment of this course and will be completed throughout the semester. It's purpose is to provide insight on how to incorporate statistical research techniques to an area of research interest. Topics must be "real" in the sense that they deal with education or social justice issues. If an area of interest has already been established in another course, that may continue in this assignment.

Grading Scale	
90 – 100 %	A
80 – 89 %	B
70 – 79 %	C
60 – 69 %	D
0 – 59 %	F

- 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

Course Policies

Writing Policy:

For any writing assignments, please use APA format.

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.

Attendance Policy:

As stated in the Chaminade University Catalog, students are expected to attend all classes for courses in which they are registered. Students are expected to attend all classes in which they are registered. The student should notify their instructors when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assignments. Not meeting the attendance requirements may result in lowering of the grade, withdrawal from the course, or failing the course. The instructor will specify and enforce expectations for online participation and receipt of assignments appropriate to the design of the course.

Excused Absences: Since it is expected that students will participate in all class sessions, excused absences are only granted in exceptional situations where evidence is provided by the student to the instructor. Students should notify their instructors when a situation prevents them from attending class and make arrangements to complete missed assignments. While notification of the instructor by a student that he/she will be absent is courteous, it does not necessarily mean the absence will be excused.

Unexcused Absences: Chaminade University student policy states that in cases where unexcused absences are equivalent to more than a week of classes, the instructor has the option of lowering the grade.

Academic Conduct Policy:

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, which is linked annually on the following webpage: <https://chaminade.edu/current-students/>

How This Course Meets the Credit Hour Policy

The paragraph below outlines how students will meet the required hours of engagement in the course through regular instruction and academic engagement. There are two components to the amount of time students will spend in a course:

1. [Time spent on key assessments](#), including study time (e.g., projects, essays, assessments)
2. Additional time each week (e.g., reading, studying, researching)

This is a three-credit hour course requiring 135 clock hours of student engagement, per the official CUH Credit Hour Policy. Students enrolled in this course are anticipated to spend 20 hours completing key assessments. There will be an additional 77.5 hours of work required beyond what is listed here (video lectures, guided notes, check for understanding), averaging 5.2 hours each week.

Below is how the 135 hours are calculated in more detail:

- Time Spent on Key Assessments:
 - Harkiolakis Reflections & Discussions = 15 hours reading & reflecting
 - Check for Understanding = 15 hours completing
 - Research Article Critiques = 20 hours reading & reflecting
 - Quantitative Research Proposal = 25 hours creating
- Sub-Total = 75 hours (key assessments)
- Total required engagement 135 hours – 75 hours = 60 hours remaining
- 60 hours divided by 10 weeks = 6 additional hours each week

Course Schedule

Module # Dates	Module Content	Assignments
Module 1 October 2 nd – 8 th	Harkiolakis Textbook Preface [Pages iii – iv] Chapter 1: Philosophical Foundations [Pages 8 – 27]	<ul style="list-style-type: none"> ○ GroupMe Registration ○ HD (Chap. 1)
Module 2 October 9 th -15 th	Harkiolakis Textbook Chapter 2: The Quantitative Research Process [Pages 28 – 67] Statistical Concepts Sampling & Variables	<ul style="list-style-type: none"> ○ HR (Chap. 2) ○ QRP Information & Understanding ● Zoom Meeting (October 15th @ 1pm HST)
Module 3 October 16 th – 22 nd	Harkiolakis Textbook Chapter 3: Populations [Pages 68 - 86] Statistical Concepts Central Tendency, Standard Deviation, & Probability	<ul style="list-style-type: none"> ○ Check for Understanding (Chap. 3 Part 1)
Module 4 October 23 rd -29 th	Harkiolakis Textbook Chapter 3: Populations [Pages 86 – 95 & 97 – 98] Statistical Concepts Normal Distribution, Binomial Distribution & z-Scores	<ul style="list-style-type: none"> ○ Check for Understanding (Chap. 3 Part 2)
Module 5 Oct 30 th – Nov 5 th	Work Week Quantitative Research Proposal (QRP)	<ul style="list-style-type: none"> ○ QRP (First Submission) ● Zoom Meeting (November 6th @ 1pm HST)
Module 6 November 6 th – 12 th	Harkiolakis Textbook Chapter 4: Samples [Pages 108 - 135] Statistical Concepts Correlation	<ul style="list-style-type: none"> ○ Check for Understanding (Chap. 4 #1-4) ○ Research Article Critique #1
Module 7 November 13 th -19 th	Harkiolakis Textbook Chapter 5: Hypothesis Testing [Pages 166 – 179] Statistical Concepts Hypothesis Testing & Significance Testing	<ul style="list-style-type: none"> ○ Check for Understanding (Chap. 5) ○ Research Article Critique #2
Module 8 November 20 th – 26 th	Harkiolakis Textbook Chapter 4: Samples [Pages 135 - 139] Statistical Concepts ANOVA & t-Tests	<ul style="list-style-type: none"> ○ Check for Understanding (Chap. 4 #5) ○ Research Article Critique #3 ○ Research Article Critique #4
Module 9 Nov 27 th – Dec 3 rd	Harkiolakis Textbook Chapter 7: Publishing Research [Pages 237 – 249] Statistical Concepts Chi-Square Test & Effect Size	<ul style="list-style-type: none"> ○ Research Article Critique #5
Module 10 December 4 th – 10 th	Work Week Quantitative Research Proposal (QRP)	<ul style="list-style-type: none"> ○ QRP (Final Submission)