

3140 Waialae Avenue - Honolulu, HI 96816 www.chaminade.edu

Course Number: DMFT 8012 **Course Title: Quantitative Research Methods & Statistical Analyses** Term: Spring 2024 Credits: Hybrid, 3 credits

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| WEEK |
|------|------|------|------|------|------|------|------|------|------|
| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   |
|      |      |      |      |      |      |      |      |      |      |
| Wed  |      | Wed  |      | Wed  |      | Wed  |      |      | Wed  |
| 4/10 |      | 4/24 |      | 5/8  |      | 5/22 |      |      | 6/12 |
| 8am- |      | 8am- |      | 8am- |      | 8am- |      |      | 8am- |
| 10am |      | 10am |      | 10am |      | 10am |      |      | 10am |
| HST  |      | HST  |      | HST  |      | HST  |      |      | HST  |

Class meeting dates and time: https://meet.google.com/myh-eein-pmp

### **University Course Catalog Description**

This course identifies various strategies for utilizing quantitative research methodology in family studies, including difference in research design, sampling, instruments, and data collection. Focuses on survey research design and data analysis. Includes research idea development, relational hypotheses formation, survey planning and management, questionnaire and item design, sampling, systemic clinical data measurement, logic of analysis, and problems of statistical interpretation and threats to internal and external validity.

### Mission Statement for Doctorate of Marriage and Family Therapy: for Adaptation and Change

The program's mission is based on Marianist values and focused on developing strong leaders within the burgeoning field of Marriage and Family Therapy, who value diversity, promote justice and peace, and embody adaptation 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 promotes continuous selfreflection and personal growth for the clinical student in their development as Clinical Practitioners in their roles as scholars, therapists, supervisors, and leaders.

### **Marianist Values**

- 1. Educate 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 (PLO)**

Upon completion of the Doctorate degree in Marriage and Family Therapy, students will be able to:

PLO1: develop a doctoral-level professional identity as marriage and family therapists and a specialized clinical area that is grounded in research and is at an advanced level of intervention and understanding (Addresses ACA 2 COAMFTE)

PLO2: synthesize contemporary family and couple therapy models and be responsive to the societal, cultural and spiritual contexts of practice (Addresses ACA 3 COAMFTE)

PLO3: synthesize the ethics and competency in peace, health, and justice approaches to MFT research, supervision, and practice, demonstrating attention to multiple domains of diversity

(Addresses ACA 2&3 COAMFTE)

PLO4: use and evaluate quantitative and qualitative MFT clinical to improve clinical process and outcomes (Addresses ACA 1 COAMFTE)

PLO5: cultivate a coherent and competent program of MFT supervision (Addresses ACA 4 COAMFTE) PLO6: utilize systemic leadership, demonstrating sophistication in program building, leadership, and/or consultation (Addresses ACA 4 COAMFTE)

<b>Competency Area</b>	Program Learning Outcome
Advanced Relational/Systemic Clinical Theory	PLO1: Students will develop a doctoral-level professional identity as marriage and family therapists and a specialized clinical area that is grounded in research and is at an advanced level of intervention and understanding (Addresses ACA 2 COAMFTE)
Advanced Relational/Systemic Applications to Contemporary Challenges	PLO2: Students will synthesize contemporary family and couple therapy models and be responsive to the societal, cultural and spiritual contexts of practice (Addresses ACA 3 COAMFTE)
Diversity, Service, Justice, Wellness, and Peace	PLO3: Students will synthesize the ethics and competency in peace, health, and justice approaches to MFT research, supervision, and practice, demonstrating attention to multiple domains of diversity (Addresses ACA 2&3 COAMFTE)
Introductory Research Methods Quantitative and Qualitative	PLO4: Students will use and evaluate quantitative and qualitative MFT clinical to improve clinical process and outcomes (Addresses ACA 1 COAMFTE)
Couple and Family Therapy Supervision	PLO5: Students will cultivate a coherent and competent program of MFT supervision (Addresses ACA 4 COAMFTE)
Leadership/Consultation in Marriage/Couple and Family Therapy	PLO6: Students will utilize systemic leadership, demonstrating sophistication in program building, leadership, and/or consultation (Addresses ACA 4 COAMFTE)

### **Course Learning Outcomes (CLO)**

At the completion of this course, MFT Doctoral students will be able to:

- 1. Utilize quantitative research techniques, methods, tools, and procedures for investigating clinical research questions (PLO1; PLO4)
- 2. Recognize and assess validity, reliability and generalizability in evaluating quantitative research studies in addition to (PLO4)
- 3. Describe a variety of research methods including questionnaires and survey research, secondary data analyses, meta-analysis and more (PLO4)
- 4. Analyze ethical issues that arise in quantitative research approaches (PLO3; PLO4)

### **Learning Materials**

#### Required readings

### **Recommended readings**

Course text: Salkind, Statistics for People Who (Think They) Hate Statistics 7e ISBN-13: 978-1544381855 ISBN-10: 1544381859

### Assessment

Course Learning Outcomes (CLO)		Assessment & Description	Contribution to final grade
1.	Utilize quantitative research techniques, methods, tools, and procedures for investigating clinical research questions (PLO1; PLO4	Chapter assessments	375 pts
2.	Recognize and assess validity, reliability and generalizability in evaluating quantitative research studies in addition to (PLO4)	Research Proposal Statistical Analysis	100 pts
3.	Describe a variety of research methods including questionnaires and survey research, secondary data analyses, meta-analysis and more (PLO4)	Interpreting Statistical Results Article Discussions	90 pts
4.	Analyze ethical issues that arise in quantitative research approaches (PLO3; PLO4)	Chapter SPSS Exercises	70 Pts

#### **Points Breakdown**

Assignments	Max Points
Weekly Chapter Assessment	375
Chapter SPSS Exercises	70
Interpreting Statistical Results Article Discussions	90
Research Proposal Statistical Analysis	100
Total	100%

Late policy- All assignments need to be submitted online on Canvas by the due date (before 11:59pm on the day it is due) unless specified as an in-class submission. Late assignments will be accepted up to 7 days after the due date with a 50% late deduction.

In cases of emergent or unanticipated events, I will give an extension only if a) the request is received 24 hours prior to the due date and b) you provide documentation. There will not be any extensions for the final week assignments.

### Grading scale

100-90%	А
89-80%	В
79-70%	C- Fail, retake

## Writing Standards

All work submitted by Chaminade University students within the DMFT program must meet the following writing standards. Written assignments should:

- 1. Use correctly the grammar, spelling, punctuation, and sentence structure of Standard Written English.
- 2. Develop ideas, themes, and main points coherently and with clarity.
- 3. Adopt modes and styles appropriate to their purpose and audience (i.e. academic style, research style, and clinical style).
- 4. Utilize APA style formatting for all papers unless specified otherwise. APA format includes 12-pt serif font (Times New Roman preferred), one inch margins, double spaces, in-text citation, correct level heading, title page (abstract not always necessary).
- 5. Carefully analyze and synthesize material and ideas borrowed from sources. In addition, the sources must be correctly cited both in the body of the paper and the Reference page to avoid plagiarism (see Plagiarism).

# Assignments

All assignments need to be submitted online on Canvas by the due date (before 11:59pm on the day it is due). No assignments will be accepted late unless you have contacted the instructor 48 hours prior to the due date and have been granted an extension.

# **Academic Honesty**

Violations of the Honor Code are serious. They harm other students, your professor, and the integrity of the University. Alleged violations will be referred to the Office of Judicial Affairs. If found guilty of plagiarism, a student might receive a range of penalties, including failure of an assignment, failure of an assignment and withholding of the final course grade until a paper is turned in on the topic of plagiarism, failure of the course, or suspension from the University.

Violations of Academic Integrity: Violations of the principle include, but are not limited to:

- Cheating: Intentionally using or attempting to use unauthorized materials, information, notes, study aids, or other devices in any academic exercise.
- Fabrication and Falsification: Intentional and unauthorized alteration or invention of any information or citation in an academic exercise. Falsification is a matter of inventing or counterfeiting information for use in any academic exercise.
- Multiple Submissions: The submission of substantial portions of the same academic work for credit (including oral reports) more than once without authorization.

- Plagiarism: Intentionally or knowingly presenting the work of another as one's own (i.e., without proper acknowledgment of the source).
- Abuse of Academic Materials: Intentionally or knowingly destroying, stealing, or making inaccessible library or other academic resource materials.
- Complicity in Academic Dishonesty: Intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty.

Plagiarism includes, but is not limited to:

- Copying or borrowing liberally from someone else's work without his/her knowledge or permission; or with his/her knowledge or permission and turning it in as your own work.
- Copying of someone else's exam or paper.
- Allowing someone to turn in your work as his or her own.
- Not providing adequate references for cited work.
- Copying and pasting large quotes or passages without properly citing them.

### **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. Should you want to speak to a confidential source you may contact the following:

• Chaminade Counseling Center 808-735-4845.

• Any priest serving as a sacramental confessor or any ordained religious leader serving in the sacred confidence role.

### **Disability Access**

The University is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students who need accommodations must be registered with Student Disability Services. 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 the Counseling Center by the end of week three of the class, in order for the instructor to plan accordingly. Failure to provide written documentation will prevent your instructor from making the necessary accommodates. Please refer any questions to the Dean of Students.

### **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 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

Phone: 808-739-8305

### **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.

Criteria	Emerging 1pt	Approaching 3 pts	Mastery 5 pts
Abstract	Abstract is present,	Abstract provides a	Abstract clearly and concisely
	but not clearly	summary of the	summarizes the research report,
	posed or does not	research report, but	including the hypothesis,
	include all	may be unclear or	procedure, and projected results
	necessary	incomplete	in 120 words or less.
	information		
Introduction	Introduction is	Introduction provides	Introduction clearly and
	present, but lacks	some background	effectively presents the research
	clarity or	information, but may	topic, providing relevant
	organization	be missing key	background information and
		elements	identifying the purpose and scope
			of the study.
Literature	Literature review is	Literature review	Literature review is well-
Review	present, but lacks	provides some	organized and effectively
	organization or	relevant research, but	synthesizes existing research to
	analysis	may be incomplete or	support the study's purpose and
		lacking in analysis	hypothesis.
Statement of the	Statement of the	Statement of the	Statement of the problem is clear,
Problem	problem is present,	problem effectively	concise, and effectively justifies
	but may be unclear	identifies the research	the research gap and the need for
	or incomplete	gap and justifies the	the study.
		need for the study	
Guiding Theory	Guiding theory is	Guiding theory	Guiding theory is well-developed
	present, but may be	effectively supports	and effectively supports the
	unclear or not well-	the research question	research question and hypothesis
	supported	and hypothesis, but	with relevant detail and analysis.
		may be lacking in	
		detail	
Research	Research question,	Research question,	Research question, hypothesis,
Question,	hypothesis, and	hypothesis, and	and prediction statement are
Hypothesis, and	prediction	prediction statement	clear, concise, and effectively
Prediction	statement are	effectively guide the	guide the study with relevant
Statement	present, but may be		detail and analysis.

#### Signature Assignment Rubric:

	incomplete or	study, but may lack	
	unclear	detail or analysis	
Methodology	Methodology is	Methodology	Methodology is detailed, clear,
	present, but lacks	effectively outlines	and effectively outlines the
	detail or may be	the research design	research design and methods,
	incomplete	and methods, but may	including operational definitions
		lack clarity or detail	and subject description.
Procedures	Procedures are	Procedures effectively	Procedures are detailed, clear,
	present, but may be	outline the research	and effectively outline the
	unclear or	process, but may lack	research process, including
	incomplete	detail or clarity	testing materials/assessments,
			statistical tests, and visual
			diagram.
Study Survey	Study survey	Study survey	Study survey instrument is
Instrument	instrument is	instrument effectively	detailed, clear, and effectively
	present, but may	outlines the data	outlines the data collection
	lack detail or	collection process and	process and reliability and
	clarity	reliability and validity	validity testing, including a copy
		testing, but may lack	of the instrument in the appendix.
		detail or clarity	
Results	Results are present,	Results are effectively	Results are clear, concise, and
	but may be	presented with formal	effectively presented with formal
	incomplete or lack	APA formatted	APA formatted figures and
	formal presentation	figures and narrative,	narrative, including relevant
		but may lack detail or	detail and analysis.
		analysis	
Discussion	Discussion is	Discussion effectively	Discussion is detailed, clear, and
	present, but lacks	discusses the literature	effectively discusses the
	analysis or may be	review, research	literature review, research
	incomplete	question, and results,	question, results, and limitations
		but may lack detail or	of the study, including relevant
		analysis	detail and analysis.

Week	Торіс	Readings &	Due to Canvas
		Assignments Due	By 11:59pm
April 8	Welcome	Chapters 1 & 2	April 14
	Syllabus	Exercises 1 & 2	
	Presentation: Introduction to Statistics		
	Chapter 1 Introduction to Statistics Chapter 2 Means to an End: Computing and Understanding Averages		
	<b>Exercise 1</b> : Introduction to Statistics <b>Exercise 2</b> : Measures of Central Tendency		
April 15	Presentation: Variability & Graph Creation	Chapters 3 & 4	April 21
	Chapter 3 Understanding Variability Chapter 4 A Picture is worth a Thousand Words	Exercises 3 & 4	
	Exercise 3 Variability Exercise 4 Graph Creation		
April 22	Presentation: Correlations, Reliability & Validity	Chapters 5 & 6	April 28
	<b>Chapter 5</b> Ice Cream and Crime: Computing Correlation Coefficients <b>Chapter 6</b> Just the Truth: An Introduction to Understanding Reliability and Validity	Exercises 5 & 6	
	Exercise 5 Correlations Exercise 6 Reliability & Validity		
April 29	Presentation: Hypotheticals & Probability	Chapters 7 & 8	May 5
	Chapter 7 Hypotheticals and You: Testing your Questions Chapter 8 Are your Curves Normal: Probability and Why it Counts.	Exercises 7 & 8	
	Exercise 7 Hypotheticals Exercise 8 Probability		
May 6	Presentation: Significance Testing & Z-Scores	Chapters 9 & 10	May 12
	Chapter 9 Significantly Significant Chapter 10 Only the Lonely; One-Sample Z-Test	Exercises 9 & 10	
	Exercise 9 Significance Testing Exercise 10 Z-Scores		
May 13	Presentation: Means of Different & Related Groups	Chapters 11 & 12	May 19
	Chapter 11 T(ea) for two: Tests Between the Means of Different Groups	Exercises 11 & 12	
	Chapter 12 T(ea) for two: Tests Between the Means of Related Groups		
	Exercise 11 Means of Different Groups Exercise 12 Means of Related Groups		

# Course Schedule : <u>https://meet.google.com/mvh-eejn-pmp</u>

May 20	Presentation: Analysis of Variance & Factor Analysis	Chapters 13 & 14	May 26
	Chapter 13 Two Groups too Many? Analysis of Variance Chapter 14 Two Too Many Factors: Factorial Analysis	Exercises 13 & 14	
	Exercise 13 Analysis of Variance Exercise 14 Factorial Analysis		
May 27	Presentation: Correlation Coefficients & Linear Regression	Chapters 15 & 16	June 2
	Chapter 15 Testing Relationships Using the Correlation Coefficient Chapter 16 Predicating Who'll Win the Super Bowl: Using Linear Regression Exercise 15 Correlation Exercise 16 Linear Regression	Exercises 15 & 16	
June 3	Chapter 17 Chi-Square & Other Nonparametric tests Chapter 18 Other Statistical Proceedings	Chapters 17 & 18	June 9
	Exercise 17 Nonparametric Tests Communities of Practice Posting	Exercise 17	
	0	Final Research Proposal	
June 12	Final Research Proposal Presentation – In-class		