



Chaminade
University
OF HONOLULU

HAWAII SCHOOL OF PROFESSIONAL PSYCHOLOGY
AT CHAMINADE UNIVERSITY OF HONOLULU

Course Syllabus

[Chaminade University Honolulu](http://www.chaminade.edu)

3140 Wai'ala'e Avenue - Honolulu, HI 96816

www.chaminade.edu

Course Number: PP7041– Sections A and B

Course Title: Quantitative Inquiry

Department Name: Hawai'i School of Professional Psychology

College/School/Division Name: College of Education and Behavioral Sciences

Term: Spring 2020

Course Credits: 3

Class Meeting Days: Tuesdays or Thursdays

Class Meeting Hours: 1:00 pm – 4:00 pm

Class Location: Brogan 103

Instructor Name: Jeffrey D. Stern, Ph.D.

Email: jeffrey.stern@chaminade.edu

Phone: 808.739-7427

Office Location: Behavioral Sciences 115

Office Hours: Mondays 9:00am-12:00pm, Tuesdays 9:00am-11:30am, Thursdays 9:00am-11:30am, or by appt.

University Course Catalog Description

This course surveys the major methodologies for completing psychological research, with an emphasis on the design of quantitative strategies for answering clinical questions. Students develop critical thinking skills to evaluate and review published research. Diversity issues in measurement are explored.

Course Overview

This course surveys the major methodologies for completing psychological research, with an emphasis on the design of quantitative strategies for answering clinical questions in a variety of research contexts (e.g., group, single subject, survey, observational). Students develop critical thinking skills to evaluate and review published research. Diversity issues in measurement are explored as are psychometric properties of various methods of measurement.

Instructional Contact and Credit Hours

Students can expect 15 hours of instructional engagement for every 1 semester credit hour of a course.

Instructional engagement activities include lectures, presentations, discussions, group-work, and other activities that would normally occur during class time. Instructional engagement activities may occur in a face-to-face meeting, or in the classroom.

In addition to instructional engagement, students can expect to complete 30 hours of outside work for every 1 semester credit hour of a course. Outside work includes preparing for and completing readings and assignments. Such outside work includes, but is not limited to, all research associated with completing assignments, work with others to complete a group project, participation in tutorials, labs, simulations and other electronic activities that are not a part of the instructional engagement, as well as any activities related to preparation for instructional engagement.

At least an equivalent amount of work specified in the paragraph above shall be applied for other academic activities as established by the institution, including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

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 'Ōlelo No'eau (Hawaiian proverbs) and Marianist core beliefs:

1. Educate for Formation in Faith (Mana) E ola au i ke akua ('Ōlelo 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 ('Ōlelo 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

HSPB Aims and Competencies

The Hawai'i School of Professional Psychology at Chaminade University's clinical psychology doctoral program's aim is to educate and train students employing a practitioner-scholar model so that they will be able to function effectively as clinical psychologists. To ensure that students are adequately prepared, the curriculum is designed to provide for the meaningful integration of psychological science, theory, and clinical practice. The clinical psychology program at HSPB is designed to emphasize the development of knowledge, skills, and attitudes essential in the training of health service psychologists who are committed to the ethical provision of quality, evidence based services to diverse populations and who are able to apply multiple theoretical perspectives to clinical issues.

The Hawai'i School of Professional Psychology at Chaminade University of Honolulu's clinical psychology doctoral program subscribes to the APA Standards of Accreditation. As such, students are expected to establish an identity in and orientation to health service psychology by acquiring the necessary discipline-specific knowledge and profession-wide competencies as follows:

1. Students will demonstrate knowledge of ethical and legal standards relevant to the practice of clinical psychology, including professional ethics that guide professional behavior.
2. Students will develop both communication and interpersonal skills, to include utilization of clear, informative, well-integrated communication, critical thinking, and effective interpersonal skills in professional interactions.
3. Students will demonstrate knowledge of professional values and attitudes as well as self-reflective practice and openness to supervision and feedback.
4. Students will demonstrate competency in individual and cultural diversity, including knowledge of theoretical models and diversity research that serve to guide the application of diversity competence.

5. Students will have knowledge of the history and systems of psychology as well as the basic areas in scientific psychology, including affective, biological, cognitive, developmental, psychopharmacological, and sociocultural aspects of behavior.
6. Students will demonstrate competency in the science of psychology, including knowledge and application of psychometrics, statistical analyses, and quantitative and qualitative research methods.
7. Students will demonstrate competency in psychological assessment, including the ability to administer, interpret, and integrate psychological test results and apply knowledge of strengths and psychopathology to the assessment process.
8. Students will demonstrate competency in clinical intervention, including case formulation, theoretical conceptualization, developing and applying evidence based treatment plans, and evaluating treatment effectiveness in work with clients.
9. Students will evidence knowledge of consultation models and practices, and demonstrate inter-professional and interdisciplinary skills in consultative services.
10. Students will evidence knowledge of supervision models and practices.
11. Students will understand and apply the Marianist values in their professional practice.

Learning Outcomes

- Students will become critical consumers of the research literature in clinical psychology as evidenced by their critical analyses of journal articles (critiques). (Competency 6)
- Students will be able to identify, analyze, and evaluate quantitative research methods and constructs through course assignments (e.g., single-subject design presentations, research proposals and critiques) and the final examination. (Competency 6)
- Students will understand the ethical principles that are designed to ensure the protection of participants in human research as demonstrated by their completion of the CITI online ethics training and research proposals. (Competency 1)
- Students will demonstrate their understanding of fundamental statistical strategies that are used to analyze data gathered in psychology research as evidenced by their single subject design presentations, class discussions, and research proposals. (Competency 6)
- Students will learn single subject research design methodology and how to apply it to their clinical work as evidenced by their single subject design presentations. (Competency 6, 8)

Required Readings

Required Textbook:

Bordens, K.S., & Abbott, B.B. (2018). *Research design and methods: A process Approach* (10th ed.). New York: McGraw Hill. **(B&A)**

Kazdin, A. E. (2018). *Research design in clinical psychology* (5th ed.). Boston:Pearson. **(K)**

Additional Required Readings:

American Psychological Association. (2010). *Ethical principles of psychologists and code of conduct*. Washington, DC: Author.

American Psychological Association (2019). *Publication manual of the American Psychological Association, 7th edition*, Washington DC: Author.

Applebaum, M., Cooper, H., Kline, R. B., Mayo-Wilson, E., Nezu, A. M., and Rao, S. M. (2018). Journal article reporting standards for quantitative research in psychology: The APA publications and communications board task force report. *American Psychologist, 73*(1), 3-25.

Eigsti, I., Zayas, V., Mischel, W., Shoda, Y., Ayduk, O., Dadlani, M. B., Davidson, M. C., Aber, J. L., and Casey, B. J. (2006). Predicting cognitive control from preschool to late adolescence and young adulthood. *Psychological Science, 17*(6), 478-484.

Lilienfeld, S. O., Ritschel, L. A., Lynn, S. J., Rautin, R. L., and Latzman, R. D. (2014). Why ineffective psychotherapies appear to work: A taxonomy of causes of spurious therapeutic effectiveness. *Perspectives on Psychological Science, 9*(4), 355-387.

- Tate, R. L., McDonald, S., Perdices, M., Togher, L., Schultz, R., and Savage, S. (2008). Rating the methodological quality of the single-subject designs and n-of-1 trials: Introducing the single-case experimental design (SCED) scale. *Neuropsychological Rehabilitation, 18*(4), 385-401.
- Tate, R. L., Perdices, M., Rosenkoetter, U., Shadish, W., Vohra, S., Barlow, D. H., Horner, R., Kazdin, A., Kratochwill, T., McDonald, S., Sampson, M., Shamseer, L., Togher, L., Albin, R., Backman, C., Douglas, J., Evans, J. J., Gast, D., Manolov, R., Mitchell, G., Nickels, L. Nikles, J., Ownsworth, T., Rose, M., Schmid, C. H., and Wilson, B. (2017). The Single-Case Reporting guideline In behavioural interventions (SCRIBE) 2016 statement. *Neuropsychological Rehabilitation, 27*(1), 1-15.
- Tate, R. L., Perdices, M., Rosenkoetter, U., Wakim, D., Godbee, K., Togher, L., and McDonald, S. (2013). Revision of a method quality rating scale for single-case experimental designs and n-of-1 trials: The 15-item Risk of Bias in N-of-1 Trials (RoBiNT) scale. *Neuropsychological Rehabilitation, 23*(5), 619-638.
- Torquati, L., Mielke, G. I., Brown, W. J., Burton, N. W., and Kolbe-Alexander, T. L. (2019). Shift work and poor mental health: A meta-analysis of longitudinal studies. *American Journal of Public Health, 109*(11), e13-e20.
- Watts, T. W., Duncan, G. J., & Quan, H. (2018). Revisiting the marshmallow test: A conceptual replication investigating links between early delay of gratification and later outcomes. *Psychological Science, 29*(7), 1159-1177.

Grading

1. **Attendance and Participation:** Students are expected to attend every class, arrive on time, complete all assigned readings, actively participate in class discussions, and behave appropriately and professionally at all times. More than two unexcused absences will result in being withdrawn from the class or a failing grade. Student attendance and participation will be one measure of students' understanding of the theoretical, empirical, and applied foundations within the clinical practice of psychology. **(20 points)**
2. **Article Critiques:** Students are to critique two articles with each worth **15** points each. Each critique will include a summary, critical analysis, and conclusion (three paragraphs). Critiques are not to be longer than 1 page, double-spaced, with 1-inch margins, and no less than 10-point font. One point will be deducted for every line over one page on the critique. This will be difficult for all of you and very difficult for some-however, it is an important exercise in organization and parsimony. Articles to be critiqued will be provided. **(30 points total)**.
3. **Operational Definition:** You (and a partner) will be assigned a "construct" or "behavior" for which you will be required to create an operational definition. You will also be required to give a hypothetical example of its use in a research study. In so doing, you will describe how your construct will be measured, very specifically! For example, if your construct is "road rage," you will have to define this term, operationally (i.e., measurable, observable; i.e., what are and what are not Road Rage behaviors?), and give an example of how you would measure it in a study designed to, for example, reduce road rage behaviors. This will be done *in-class*, the first week with the assignment due by the end of the class period **(10 points)**.
4. **Single-subject research study and poster presentation.** A detailed description of the specifics of this assignment is forthcoming and should be referred to, often, during the completion of this assignment. It consists of sub-assignments including selection of the behavior (and operational definition); baseline monitoring of the behavior; development of a single subject design methodology; review of relevant literature to complete the design; implementation of the design and gathering of data; and presentation, including graph(s). APA formatting and style are required. **(40 points)**
5. **Research Proposal Presentation:** Students are expected to present a 30 minute presentation using the projector and providing handouts for students. Presentations should include a detailed description of a quantitative research proposal. The presentation should include a brief background of the research, the purpose and significance of the proposed research, the research question, the hypotheses, the design, the method (sample, instrumentation, procedures), and statistical tests proposed. **(20 points)**

6. **Research Proposal:** Students are to submit a quantitative research proposal between 10-15 pages that demonstrates understanding of the concepts covered in class. No fewer than 8 peer-reviewed journal articles are to be included in the proposal, which could be used as the basis for the CRP. (60 points)
7. **Final Exam:** This will be an in-class, closed book final exam. Content will be based upon readings, lecture material, class discussions and activities. (50 points)
8. **CITI online ethics in research with human participants:** This training is accessible for free through Chaminade IRB (20 points) Access the online ethics CITI training <https://chaminade.edu/irb/irb-training/>. Then follow the instructions for "2.1 Registering and Enrolling for CITI." When you have completed the required courses:
 1. Social and Behavioral Research – Basic/Refresher (10 modules)
 2. Researchers (4 modules)
 3. Social and Behavioral Responsible Conduct of Research (8 modules)

Print up the certificate of completion and deliver it to me, or email it to me at jeffrey.stern@chaminade.edu by 11:59pm on Friday night, 4/24/20.

Grading Scale

Project/Assignment/points	% of Grade
Attendance&Participation/20	8%
Operational Definition/10	4%
Article Critiques/30	12%
Single Subject study & poster/40	16%
Research Proposal Presentation/20	8%
Research Proposal/60	24%
CITI research ethics online training/20	8%
Final Exam/50	20%
Total/250	100%

Grading Scale (final scores > .5 will be rounded up)

A = 90 – 100

B = 80 – 89

C = 70 – 79

F = 69 and below

Course Policies

Instructor and Student Communication

Questions for this course can be emailed to the instructor. Online, in-person, and phone conferences can be arranged. Response time will take place up to 2 days.

Cell phones, tablets, and laptops

Out of consideration for your classmates, please set your cell phone to silent mode during class. Students are encouraged to bring laptops or tablets to class as the instructor will assign online activities and readings that will require the use of a laptop or tablet. Laptops and tablets should not be misused, such as checking distracting websites. Use your best judgment and respect your classmates and instructor.

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 the Counseling Center 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 Counseling Center at (808) 735-4845 for further information.

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

Students are expected to attend regularly all courses for which they are registered. Student should notify their instructors when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assignments. Notification may be done by emailing the instructor's Chaminade email address, calling the instructor's campus extension, or by leaving a message with the instructor's division office. It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course without officially withdrawing may receive a failing grade.

Unexcused absences equivalent to more than a week of classes may lead to a grade reduction for the course. Any unexcused absence of two consecutive weeks or more may result in being withdrawn from the course by the instructor, although the instructor is not required to withdraw students in that scenario. Repeated absences put students at risk of failing grades.

Students with disabilities who have obtained accommodations from the Chaminade University of Honolulu ADA Coordinator may be considered for an exception when the accommodation does not materially alter the attainment of the learning outcomes. Federal regulations require continued attendance for continuing payment of financial aid. When illness or personal reasons necessitate continued absence, the student should communicate first with the instructor to review the options. Anyone who stops attending a course without official withdrawal may receive a failing grade or be withdrawn by the instructor at the instructor's discretion.

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 at <https://studentaffairs.chaminade.edu/>

All sources must be documented through normal scholarly references/citations and all work must be submitted using the *Publication Manual of the American Psychological Association, 7th Edition* (2019). Washington DC: American Psychological Association (APA) format. Please refer to Appendix A in the *Publication Manual of the American Psychological Association, 7th Edition* for thesis and paper format.

Scholarly writing: The faculty at the Hawai'i School of Professional Psychology at Chaminade University of Honolulu is dedicated to providing a learning environment that supports scholarly and ethical writing, free from academic dishonesty and plagiarism. This includes the proper and appropriate referencing of all sources. You may be asked to submit your course assignments through "Turnitin," (www.turnitin.com), an online resource established to help educators develop writing/research skills and detect potential cases of academic dishonesty. Turnitin compares submitted papers to billions of pages of content and provides a comparison report to your instructor. This comparison detects papers that share common information and duplicative language.

Technology

The following technology may be required in order to complete courses in the Clinical Psychology program: For PCs: at least an Intel® or AMD x86 processor running at 1.3 GHz or faster; 4GB of RAM, 10 GB hard drive space, 1024x576 display, and a DVD-ROM drive (video hardware acceleration is optimal); one of the following operating systems: Windows 7, Windows Server 2003 with Service Pack 2 and MSXML 6.0 (32-bit Office only), or Windows Server 2008 or later 32 or 64-bit OS. For Macs: at least an Intel processor, Mac OS X 10.5.8 or later; 1 GB of RAM, 10 GB free hard drive space, 1280x800 display, and a DVD-ROM drive. Current Norton Antivirus (Version 10.2 or higher); Microsoft Office Professional (Version 2010 for PC and 2011 for Mac) containing Powerpoint and Word; Acrobat (full version). 56K or faster Internet or broadband connection; web browser: Microsoft Internet Explorer, Mozilla Firefox, or Google Chrome for PC users, Apple Safari, Mozilla Firefox, or Google Chrome for Mac users.

Course Schedule w/ due dates

Week	Topic	Required Readings	Required Assignments
1 1/7&9	Syllabus; Scientific method; Developing a research design; Operationalization	Syllabus; APA Pub Manual, K week 1	Operationalization
2 1/14-16	Operationalization presentations; Theories, Hypotheses, models; SS design	B&A Ch. 1, 2 & 3; Tate et al., 2008	Select SS design behavior to measure
3 1/21-23	Single Subject Design cont'd – present proposal; Peer/Lit Review; Causal Inference; Experimental vs. correlational Research; Validity & reliability I	B&A Ch. 12 & 4 Tate et al., 2013	
4 1/28-30	Validity & reliability II; Bias, science, and pseudoscience, critiquing research	B&A Ch. 5 Tate et al., 2017	Read article TBA for In-class critique
5 2/4-6	Scientific Method II; validity and reliability III,	B&A Ch. 6 Eigsti et al, 2006 Watts et al 2018	Critique #1
6 2/11-13	Present SS posters, recruitment, assignment, intro. to group designs,	Tate et al., 2017 APA Ethics in Research Guidelines	SS Research Paper and Poster due
7 2/18-20	Ethics; Observational Research; validity of non-experimental research methods	B&A Ch. 7 & 8	

8 2/25-27	Survey and Questionnaire Research; validity and reliability of survey research	B&A Ch. 9	
9 3/3-5	Between and Within Subjects Experimental Designs	B&A Ch. 10 Watts et al., 20	
10 3/10-12	Mixed Designs; covariation and Interaction, Descriptive Stats, measures of association	B&A Ch. 11, 13	First draft RP
11 3/17-19 Home	Inferential statistics, statistical power, parametric and non-parametric statistics	B&A Ch. 14	Don't forget CITI training!!
12 3/19-24 Away	Make Edits to Proposal as suggested, work on ppt, read/write 2nd critique	B&A Ch. 15	Critique #2 – due at midnight on day of class, by email.
13 3/31, 4/2	Meta-analysis; Reporting Research Results	B&A Ch. 16 Torquati et al., 2019	Don't forget CITI training!
14 4/7-9	Research Proposal Presentations		Final Res Proposal
15 4/14-16	<i>Catching up – review for final exam</i>	<i>Voluntary class</i>	<i>Voluntary class</i> Don't forget CITI training!
16 4/21-23	Final Exam		Ethics CITI training Certificate Final Exam

* Note: Additional and/or alternate readings/chapters may be assigned and will be provided prior to the date the material is covered. Additionally, this course syllabus and schedule are subject to change based upon the needs of students, progress, availability of resources, and the capricious whim of the professor.