



HAWAI'I SCHOOL OF PROFESSIONAL PSYCHOLOGY
AT CHAMINADE UNIVERSITY OF HONOLULU

Course Syllabus

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

3140 Wai'ālae Avenue - Honolulu, HI 96816

www.chaminade.edu

Course Number: PP-7051-02

Course Title: Biological Bases of Behavior

Department Name: Hawai'i School of Professional Psychology

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

Term: Fall 2025

Course Credits: 03

Class Meeting Days: Mondays

Class Meeting Hours: 2:30PM – 5:30 PM

Class Location: Behavioral Sciences 101

Instructor Name: Dennis P. Itoga, Psy.D., M.Ed.

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Office Location: Brogan Hall 116

Office Hours: Tuesdays and Thursdays – 9:00AM – 11:00AM

University Course Catalog Description and Overview

This course introduces students to the gross anatomy and the neurophysiology of the nervous system. Students are presented with updated data and findings regarding neurological functions as the foundations of human behavior. It presents an overview of endocrinological processes, adding more breadth to the purpose of this course, introducing students to the fundamentals of physiological behavior correlates. In addition, this course introduces students to the clinical ramifications of primitive reflexes and developmental undertones.

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 typically 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:

- Education for formation in faith
- Provide an integral, quality education
- Educate in family spirit
- Educate for service, justice, and peace
- 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 (Hawai'ian 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

Program Learning Outcomes: HSPP Aims and Competencies

The Hawai'i School of Professional Psychology at Chaminade University of Honolulu'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 the Hawai'i School of Professional Psychology 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 American Psychological Association (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. Upon completion of the PSYD degree in clinical psychology, students will be able to:

Apply ethical and legal standards relevant to the practice of clinical psychology, including professional ethics that guide professional behavior.

1. Apply professional communication and interpersonal skills, to include the utilization of clear, informed, and well-integrated communication, as well as effective interpersonal skills across settings.
2. Apply professional values and attitudes across settings, including self-reflective practice and openness to supervision and feedback.
3. Apply awareness of individual and cultural diversity, including knowledge of theoretical models and diversity research that serve to guide the application of diversity competence.
4. Articulate and integrate 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.
5. Conduct science in psychology, applying psychometrics, statistical analyses, and quantitative and qualitative research methods.
6. Competently perform psychological assessments, including the ability to administer, interpret, integrate, and convey results of psychological tests.
7. Competently perform clinical interventions, including case formulation, theoretical conceptualization, developing and applying evidence-based treatment plans, and evaluating treatment effectiveness in work with clients.
8. Apply knowledge of consultation models and practices, including interprofessional and interdisciplinary skills in consultative services.
9. Articulate supervision models and practices, including areas of ethics and potential conflicts.
10. Apply the Marianist values, through acts of community service, justice, and peace.

Course Learning Outcomes

1. Students will analyze and contrast the nervous system cells, brain anatomy, neurotransmitter systems, methods of brain research, neurophysiology of sense perception, neural movement, control, neurophysiology of sleep and reproductive behavior, neural bases of emotion, digestive behavior, learning, memory, and communication, relation of psychopathology to brain function, relation of cultural and gender differences to brain function. (Competency 5)
2. Students will investigate brain-behavior relationships, in order to articulate how current advances in physiological psychology contributes to improved services, treatment, and/or understanding of individuals with neurophysiological disorders. (Competency 2, 3, 4, 5, 7)
3. Students will critically review selected professional, theoretical, and research literature related to prevalent issues in biological bases of behavior, and examine their implications for practice, as measured in their supervision models presentation. (Competency 6)

4. Students will present empirically-research in a professional manner on brain function and neurological disorders. (Competency 2, 5, 6)
5. Students will apply the APA Code of Ethics to supervision and identify and sensitively address ethical issues that arise in supervision systems. This is scored in the grading rubric of the final packet. (Competency 1, 10)

Required Learning Materials

Required Textbooks

Kolb, B., & Whishaw, I. Q. (2020). *Fundamentals of human neuropsychology* (8th ed.). New York: Macmillan Higher Education.

Course Requirements

Attendance and Participation. Students are expected to attend all classes and to be prepared and situated before each class begins. Attendance is worth 10% of the total grade; however, students may not accrue more than two unexcused absences to earn course credit. Moreover, it is important to consider that excusals are at the instructor's discretion. Additional work may be assigned for excused absences, but quizzes may not be made up. Tardies and absences must be communicated via email before each respective class. All scheduled weekly readings and assignments must be completed before each class to facilitate active participation and discussions. Professional and ethical behavior is required always. Failure to meet these expectations will result in an individual meeting with the instructor and potentially the student's academic advisor for remediation. If attendance and participation problems remain unresolved over the course of the semester, loss of credit for the course will result. Students who foresee attendance issues must arrange a meeting with the instructor at the beginning of the semester.

Quizzes. Four scheduled multiple choice quizzes will be based on the cumulative readings and lectures assigned throughout the course and be worth 10% of the total grade.

Mid-term and Final Exam. A three-hour in-class mid-term exam will be worth 20% of the total grade. The test may consist of multiple choice, true false, and short-answer/essay format. Likewise, a three-hour in-class final exam worth 20% of the total grade will be assigned utilizing a similar test format.

Literature Review Paper. Students must present an original literature review paper of a theoretical research project highlighting a biologically-based perspective of behavior, complete with a minimum six page and maximum eight page paper (not including works cited). A research draft will be due (see schedule) and be worth 20% of the total grade. The paper is not a collaborative assignment and must be in APA style: graded on content, grammar, style, empiricism, and organization. Late papers are not encouraged, but may be accepted for a maximum of 10%, if turned in within two weeks of the due date and communication with the instructor.

Literature Review Presentation. Students will create a three-panel board (digital presentation) of their literature review paper worth 20% of the total grade. The instructor will provide a PDF template of the presentation to submit work on. Examples of prior student work will be shown early in the

course to facilitate ideas and guide scholarly work. Students may schedule meetings with the instructor at any time for support.

Grading

Project/Assignment	Point Value (out of 100 pts)
Attendance and Participation	10 points
Quizzes	10 points
Mid-Term Exam	20 points
Literature Review Paper	20 points
Literature Review Paper Presentation	20 points
Final Exam (Summative)	20 points

Grading Scale

Grade point equivalents (and grading scale values) are presented below. Final scores > .5 will be rounded up.

A = 4.00 (93-100) A- = 3.67 (90-92) B+ = 3.33 (88-89) B = 3.00 (83-87) B- = 2.67 (80-82) C = 2.00 (70-79); Failed - No credit given F = 0.00 ($\leq$ 69); Failed - No credit given

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 is 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, 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).

Failure to provide written documentation through the Counseling Center will prevent your instructor from making the necessary accommodations, instructors cannot provide accommodations unless they have been prescribed by the Counseling Center. Once you have received an official notice of accommodations from the Counseling Center, it is also very important

to discuss these accommodations directly with your instructor so that they can better support your needs. If you have specific questions regarding your individualized accommodations, you may speak directly with your instructor and/or you may contact the Counseling Center.

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, you are encouraged to report this matter promptly. Faculty members promote safe and healthy environments, and any sexual, physical, and/or psychological misconduct or abuse will be reported 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 regularly attend all courses for which they are registered. Student should notify their instructors when illness or other extenuating circumstances prevents them from attending class, and they should decide to obtain missed information and 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.

Students may be automatically withdrawn from the class or receive a failing grade if there are three or more absences in a 16-week term or two absences in a row in a 16-week term. With the condensed nature of the 8- week terms, missing class one day (e.g., 6-hours of class) would be equivalent to two absences in a row in a 16- week term.

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 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 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 HSPP Program Catalog, 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 Program Catalog 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 and HSPP Program Catalog for more details. A copy of the Student Handbook is available on the Chaminade website.

Unless expressed in writing via a university accommodation, all course information, content, and materials in any medium (including but not limited to notes, slides, recordings, electronic files, and verbal discussions and presentations) are prohibited from being intentionally or unintentionally shared (or allowed to be accessed), distributed, published, uploaded, or reproduced in any form, as they are reserved for the private use by the student registered for the course. Any audio and/or visual recordings (including pictures) are prohibited unless prior written permission from the instructor is granted, and permission is limited to individual and temporary use (i.e., recordings are not to be shared/reproduced, recordings must be deleted at the end of the term).

Unless otherwise instructed, all course submissions should follow the formatting of the *Publication Manual of the American Psychological Association, 7th Edition* format. 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 an online authenticity resource (e.g., Turnitin), which helps students and instructors detect potential cases of academic dishonesty.

Technology: A laptop with the following technology may be required to complete courses in the Clinical Psychology program: at least Windows 10 (for PCs), at least Mac OS X 10.5.8 (for Macs); a current antivirus program; the current Microsoft Office (PowerPoint and Word) and Adobe Acrobat; a standard web browser; and an internet or broadband connection with speed and connectivity to support internet searches and video conferencing.

Schedule

Week	Date	Topics	Readings Due (to be completed before attending next class)	Assignments Due
1	08/25	<i>Overview of Biological Bases of Behavior: Review Syllabus</i> <i>Structural and Electrical Activity of Neurons: Part I Video:</i> https://www.youtube.com/watch?v=24uCCr3KjCI	Kolb & Whishaw CH – 4 pp 80 -107: The Structure and Electrical Activity of Neurons <i>Consider Special Interest Topics for Literature Review</i>	

2	09/01	<i>Labor Day (No Class)</i>	Kolb & Whishaw CH – 5 pp 108 – 129: Communication Between Neurons	
3	09/08	<i>Structural and Electrical Activity of Neurons: Part II</i> <i>Communication Between Neurons</i> <i>Discuss Special Interest Topics</i>	Kolb & Whishaw CH – 3 pp 50 - 79: Nervous System Organization Kolb & Whishaw CH – 10.1 – pp 238 – 242: Hierarchy of Function from Spinal Cord to Cortex Kolb & Whishaw 10.3 Functional Organization of the Cortex pp 253 – 257	Quiz # 1 – CH 4 & 5 readings and lectures
4	09/15	<i>Nervous System Organization</i> <i>Principles of Neocortical Function</i>	Kolb & Whishaw CH – 6 pp 130 – 159 The Influence of Drugs and Hormones on Behavior	
5	09/22	<i>The Influence of Drugs and Hormones on Behavior</i>	CH – 8.2 pp 196 – 211: Organization of the Sensory System	Quiz # 2 – CH 3, 6, 10 readings and lectures

6	09/29	<i>Organization of the Sensory System</i>	Kolb & Whishaw CH – 9.1 - 9.3 pp 217 – 235: Organization of the Motor System	
7	10/06	<i>Organization of the Motor System</i>		Quiz # 3 – CH 8.2, 9.1 - 9.3

8	10/13	Mid-Term Exam	Kolb & Whishaw CH – 11 Cerebral Asymmetry Kolb & Whishaw CH – 12 Individual Differences in Cerebral Organization (pp TBD)	Mid-Term Exam
9	10/20	<i>Cerebral Asymmetry & Individual Differences in Cerebral Organization</i>	Kolb & Whishaw CH – 20 pp 503 – 527: Emotion and the Social Brain	
10	10/27	<i>Emotion and the Social Brain</i>	Kolb & Whishaw CH – 13 The Occipital Lobes and Networks Kolb & Whishaw CH – 14 The Parietal Lobes and Networks	
11	11/03	<i>The Occipital and Parietal Lobes and Networks</i>	Kolb & Whishaw CH – 15 The Temporal Lobes and Networks Kolb & Whishaw CH – 16 The Frontal Lobes and Networks	
12	11/10	<i>The Temporal and Frontal Lobes and Networks</i>	Kolb & Whishaw CH – 24 Neurodevelopmental Disorder	Quiz # 4: CH 11, 12, 13, 14, 20

			Kolb & Whishaw CH – 26 Neurological Disorders	
13	11/17	<i>Neurodevelopmental Disorders, Neurological Disorders</i>	Kolb & Whishaw CH – 27 Psychiatric and Related Disorders	Literature Review Paper
14	11/24	<i>Psychiatric and Related Disorders</i>	Finalize Literature Research Project Study for Final Exam	
15	12/01	<i>Digital Presentations</i>		Final Research Presentation
16	12/08	Final Exam		Final Examination