
Behavioral Endocrinology (PSY 452)

Professor Heide Island, Office: Carnegie 305

Comparative Research And Behavior (C.R.A.B.) Lab, Carnegie 304

Email: island@pacificu.edu; **Website:** www.heideisland.com

Lecture: T/Th 7:55–9:30, Carnegie 306

Office Hours: Wed. 10:00 – 12:00 pm and by appointment



Course Description

Why are PFAS ("forever chemicals") associated with declining fertility in humans and wildlife? Why can hormone replacement therapy transform one person's quality of life while increasing health risks for another? Why did ranchers discover that mares grazing on alfalfa infected with black patch fungus became infertile? Why do anabolic steroids increase muscle mass while also altering mood, aggression, and fertility? Behavioral endocrinology explores how hormones regulate reproduction, metabolism, aggression, learning, memory, biological rhythms, and countless other aspects of behavior, while asking how behavior and the environment alter the endocrine system in return. Throughout the course, we examine contemporary issues including endocrine-disrupting chemicals, infertility, hormone replacement therapy, endocrine disorders, and environmental contaminants. Along the way, we discover how observations in horses, rodents, birds, fish, and other animals have led to some of our most important advances in human medicine and environmental health.

Pre-Requisites

This course is open to students who have successfully completed Introductory Psychology with a C or higher and have junior standing. This is the final course for students completing the Clinical Neuroscience Emphasis (i.e., PSY 252, PSY 352, and PSY 452).

Required Materials

Required Textbooks

1. Nelson, R. (2011). Behavioral Endocrinology, 4th Ed., Sinauer, ISBN: 0-87893-617-3
2. American Psychological Association (2009). *Publication Manual of the American Psychological Association, 6th Edition*, Spiral Binding. Washington, D.C.: APA. ISBN: 1557988102

Required Software

1. Microsoft Word is considered standard professional software and is on all Pacific University computers. Word (not Pages) is required for all your reports.
 - You may elect not to purchase this software but all materials must be written in Word for consideration. Pages and documents submitted through Google Drive are prone to formatting errors, and formatting in this class matters. You will frequently be asked to review your returned materials and that of your peers in Word's Reviewer mode.

Grading Criteria

You are expected to **respectfully** participate in class discussions. Your unique and independent perspectives on the reading, the course, and assignments are valuable and contribute to the class community. Also recognize that your opinions may differ from other students and also from the professor, this makes them no less valuable. It is important given these differences in perspectives, that you discuss them in a professional, non-judgmental way, so that everyone feels the class is a safe place for intellectual engagement and growth. We will discuss and establish shared guidelines for how we can do this at the onset of the semester.

Assignment Breakdown by Points**Grade Breakdown by Percent and Points**

3 Exams (75 pts ea.)	225 pts	A $\geq$ 93.5%	350 – 327.25 pts
Annotated Bibliography	20 pts	A- = 93.4 – 89.5%	327.24 – 313.25 pts
Empirical Review	70 pts	B+ = 89.4 – 86.5%	313.24 – 302.75 pts
“TedTalk” Presentation	25 pts	B = 86.4 – 83.5%	302.74 – 292.25 pts
Research handout	10 pts	B- = 83.4 – 79.5%	292.24 – 278.25
Research Service: Complete/Incomplete	C/I	C+ = 79.4 – 76.5%	278.24 – 267.75 pts
TOTAL POINTS	350	C = 76.4 – 73.5%	267.74 – 257.25 pts
*In order for this course to count toward the elective courses in the major, you must earn a C or better.		*C- = < 73.4%	$\leq$ 257.24

Exams

There are three semester exams total (exam 3 occurs on the scheduled day of the final exam, it is not cumulative and is not optional). There are 77 points possible on each exam but your score is based on 75 points; this provides a point cushion in the event you misinterpret a question. Assuming all questions are clear, you can earn 2 extra points on each exam or flub two questions without harm to your grade (this is the ONLY bonus point opportunities I provide). Each exam covers 3 weeks’ worth of lecture, discussion, film, readings, and in the last two weeks of the semester, presentations. These sources will be represented on exams, so do take good notes and attend class.

Empirical Review

You write a comprehensive APA style empirical review on a topic within the area of behavioral, comparative or clinical endocrinology. The paper should have a minimum of 10 primary source, peer reviewed articles cited and referenced for a comprehensive paper, other secondary sources (i.e., literature reviews or popular sources) may be used; but do not contribute to the minimum reference number. Also be careful, secondary citations (i.e., referring to a paper you did not read but that is cited in another source is unacceptable). If you discuss a study, you must have that article as a primary citation (note that primary sources and citations are different).

Please use the APA style guide for information on how to write an empirical literature review. Here are examples of former students’ successful empirical reviews (remember an empirical review begins with a question): *“HRT and Breast Cancer,” “Tinkering with Testosterone in Professional Sports;” “Vasopressin and Jealousy – Mate Guarding by any Other Name?” “The Relationship between Bipolar Disorder and Thyroid Dysfunction.”*

“Ted Talk” Presentation

You will present your empirical review during the last two weeks of the semester. You will have 15 minutes for the presentation, with 5 minutes for questions. This is not a PowerPoint presentation. This is an engaging 15-minute narrative of your research topic that may be accompanied by PowerPoint (8-slide) slides. See the Presentation sign-up sheet at the back of this syllabus. The date you choose will be the due date for both your presentation and your paper. Please consult with your other course syllabi to establish first and second choice dates, to be decided with the rest of the class the second week of the semester.

Research Service

For professional academics (i.e., professors), promotion and success is contingent upon competencies in: Teaching, Scholarship, and Service to the discipline. As new scholars and academics, you will also be evaluated this way, though the “teaching” portion is in the form of learning competencies. Scholarship is through either 1.) peer research participation; or 2.) academic presentation. Research Service for this course constitutes a one-hour commitment and requires either a research receipt (research participation)

or a paragraph summary (presentation/lecture). This service is not optional, students who do not participate in research **or** support a speaker will receive an incomplete for the course until which time the necessary research receipt or summary is submitted. After one year, without submission of the necessary materials, the incomplete will revert to a lower letter grade.

There are several publicized, free presentations during the fall semester. Faculty Forum talks are appropriate, as are outside research presentations, for example the **Willard Kniep Lecture**, Dr. Edith Sheffer, Professor of History and Senior Fellow at the University of California, Berkeley, will discuss her recent book *Asperger's Children: The Origins of Autism in Nazi Vienna*. **When:** Monday, September 16 at 4:30 pm. **Where:** Room to be determined.

University Policies

Classroom Behavior – Rule 1: Be Courteous and Respectful

From the Pacific University Faculty Handbook (Section 4.1.3)

Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they enroll. Students should have protection through orderly procedures against prejudiced or capricious academic evaluation. At the same time, students are responsible for maintaining standards of academic performance established for each course in which they enroll. Students must also recognize that, as members of a community of learners, they have an obligation to be respectful members of that community.

Academic Misconduct Policy

Pacific University has no tolerance for academic misconduct/cheating. It is university policy that all acts of misconduct and dishonesty be reported to the Associate Dean for Student Academic Affairs. Sanctions that may be imposed for such misconduct range from an “F” for the assignment, an “F” for the course, and suspension or dismissal from the university. Forms of academic misconduct include but are not limited to plagiarism, fabrication, cheating, tampering with grades, forging signatures, and using electronic information resources in violation of acceptable use policies.

Office of Accessibility and Accommodation Services

If you have documented challenges that will impede your learning in any way, please contact our LSS office in Clark Hall (ext.2717; <https://www.pacificu.edu/oaa>). OAA staff will meet with students, review the documentation of their disabilities, and discuss the services that Pacific offers and any appropriate ADA accommodations for specific courses.

Tutoring Services

CLASS (Center for Learning and Student Success) is located on the 2nd-floor of the Tran Library. The center focuses on delivering one-on-one and group tutoring services for foreign languages, math and science courses, and writing skills in all subjects. Students should consult with the center's director and look for campus advertisements regarding tutoring available for other subjects. Day and evening hours.

Unauthorized Recordings

Students are prohibited from making audio and/or visual recordings of lectures or presentations without prior consent of the instructor or presenter.

Cell Phones

Smartphones are disruptive to the professor and your peers. Turn them off at the onset of class. If you have to use the phone, leave the classroom.

Student Learning Outcomes

The learning outcomes of this course relative to the core for the School of Social Sciences, the Department's program goals, and the American Psychological Association's Undergraduate Psychology Guidelines are listed below.

Social Science Core	APA Guidelines	Department Goals	Course Learning Outcomes
Students who complete the Social Sciences Core requirement will be familiar with social science approaches to the explanation of social or psychological phenomena.	1. Knowledge in Psychology	Present a selection of courses that typify the breadth of the discipline and the expertise of departmental faculty	Demonstrate competency in behavioral endocrine history, research, methodology, and treatments
Students who complete the Social Sciences Core requirement will use theory and concepts from social science to understand and/or address social or psychological phenomena, issues, and problems	2. Scientific Inquiry and Critical Thinking	Introduce students to the scientific approach and methods of critical analysis in the interpretation and evaluation of research and theory	Introduce research and methodology involving the structure and function of the central nervous system and the CNS electrochemical communicatory systems Critically evaluate and problem solve endocrine dysfunction through clinical cases.
	3. Ethical and Social Responsibility	Develop cultural humility in understanding, service and research with diverse populations Mentor students' by providing opportunity and instruction in basic and applied psychology through civic and community engagement, as well as allied health and service professions	Develop cultural humility through thorough neurological case descriptions and society's unintended exclusion of those with endocrine disorders.
	4. Communication	Polish student writing so that they communicate clearly, succinctly and with authority both in oral presentation and in essay form.	Demonstrate evidence-based writing skills through an empirical review of the empirical clinical and behavioral endocrine research Polish presentation skills and oral communication of evidence-based writing through narrative story-telling in a Ted-talk style
	5. Professional Development	Instill cooperative learning strategies that enable students to participate effectively in group projects and in circumstances surrounding employment	Instill cooperative learning and constructive critical feedback strategies for effective peer review. Learn how to best use critical feedback through student peer review to revise and evaluate your own writing for revision. Self-assess your learning progress over the course of the semester in depth, critical evaluation, cultural sensitivity, communication and professional development.

Behavioral Endocrinology *Flexible Course Schedule*

DATES	TUESDAY	THURSDAY	OF NOTE	READINGS
WEEK 1 Aug. 27 & 29	Syllabus, Introductions	Endocrine System and Behavior		Nelson, Ch. 1
WEEK 2 Sept. 03 & 05	Endocrine System	Endocrine System		Nelson, Ch. 2
WEEK 3 Sept. 10 & 12	Endocrine System Disruptors	Sexual Determination and Differentiation	Emailed Friday by 5 pm: Research topic	Article: Endocrine disruptors; Nelson, Ch. 3
WEEK 4 Sept. 17 & 19	Sexual Determination and Differentiation	Sex Differences in Animal Behavior	Sept. 16, Dr. Edith Sheffer - Presentation	Nelson, Ch. 4
WEEK 5 Sept. 24 & 26	Exam 1, Ch. 1 - 4	Reproductive Behavior		Nelson, Ch. 5
WEEK 6 Oct. 01 & 03	Reproductive Behavior	Reproductive Behavior	Emailed Friday by 5 pm: Annotated Bibliography	Nelson, Ch. 6
WEEK 7 Oct. 08 & 10	Parental Behavior	Social Behavior		Nelson, Ch. 7
WEEK 8 Oct. 15 & 17	Social Behavior	Homeostasis		Nelson, Ch. 8, 9
WEEK 9 Oct. 22 & 24	Attention and Learning	Attention and Learning		Ch. 12
WEEK 10 Oct. 29 & 31	Exam 2: Ch. 5-9,12	Stress	October 29, Dr. Island River Otter Research Presentation	Ch. 11
WEEK 11 Nov. 05 & 07	Stress	Affective Dx		Ch. 13
WEEK 12 Nov. 12 & 14	Affective Dx	<i>Ted Talks</i>	Due at presentation: Paper, PPT, Handout	Ch. 13
WEEK 13 Nov. 19 & 21	Ted Talks	Ted Talks	Due at presentation: Paper, PPT, Handout	n/a
WEEK 14 Nov. 26	Ted Talks	No Class, TG Break	Due at presentation: Paper, PPT, Handout	n/a
WEEK 15 Tues., Dec. 03	Exam 3: Ch. 11, 13 16 + presentations			
WEEK 16 Wed., Dec. 11				
Final Exam, 12 – 2:30 Carnegie 205				

Behavioral Endocrinology Presentation Schedule

Note: Class will start during Presentations at 7:55 Sharp

DATE	PRESENTER	TOPIC
Thursday, Nov. 14		
1.	7:55 – 8:15	
2.	8:20 – 8:40	
3.	8:45 – 9:05	
4.	9:10 – 9:30	
Tuesday, Nov. 19		
5.	7:55 – 8:15	
6.	8:20 – 8:40	
7.	8:45 – 9:05	
8.	9:10 – 9:30	
Thursday, Nov. 21		
9.	7:55 – 8:15	
10.	8:20 – 8:40	
11.	8:45 – 9:05	
12.	9:10 – 9:30	
Tuesday, Nov. 16		
13.	7:55 – 8:15	
14.	8:20 – 8:40	
15.	8:45 – 9:05	
16.	9:10 – 9:30	

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I, _____ (PRINT YOUR NAME) hereby acknowledge that I have received a copy of the Behavioral Endocrinology (PSY452) syllabus for the fall 2019 semester.

- ☐ I have read the syllabus and understand the course policies and requirements.
- ☐ I recognize it is my responsibility to seek clarification regarding any aspect of the syllabus, the course requirements, or the grading policies if they are unclear to me.
- ☐ I acknowledge and understand that plagiarism is wrong and will not be tolerated.
- ☐ I understand that my written materials must be accurately referenced. I will follow the rules and conventions concerning referencing, citation and the use of quotations as set out in the APA Style Guide.
- ☐ Assignments will reflect my own work, unless otherwise indicated.
- ☐ I acknowledge that copying someone else's assignment, or part of it, is wrong, and that submitting identical work to others constitutes plagiarism.
- ☐ I will not allow anyone to copy my work with the intention of appropriating it as their own.
- ☐ I understand submitting plagiarized work is one of the most egregious violations an academic can perpetrate and is a violation of the Student Conduct Code.

Signed

Date

Please answer the following questions to support the professor in providing personalized instruction.

What's your major?

Minor?

What are your career goals following college?

What area(s) of psychology do you find the most interesting? Why?

What do you expect from this course?

What are your concerns regarding this course?

How can I empower you to overcome these concerns?

Have you recently experienced an injury?

If yes, does the injury affect your attention, learning, comfort? If so, how?

What grade do you expect to earn from this course? A/A- B+/B/B- C+/C/C-

What is your behavioral plan to achieve this grade (if you don't have one, please consider visiting with me during office hours)?