

**Hormones & Behavior PSY 450**  
**University of Oregon**  
**Summer 2014**

**Location: Pacific 11**  
**Time: Monday-Thursday, 2:00 – 4:00 PM**

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**Course Overview:**

Welcome to Hormones and Behavior! This upper division course will provide an overview of behavioral endocrinology, the study of the reciprocal relationship between hormones and behavior, with an emphasis on the study of humans. Basic concepts in endocrinology will be discussed in the context of understanding how the brain, endocrine systems, and behavior interact at different levels of analysis/complexity. Empirical evidence for the major concepts discussed will be emphasized throughout the course, and students will be expected to engage with empirical articles and think critically about how the concepts discussed have, have not, or have yet to be supported by empirical evidence. Students are expected to have completed coursework in statistics and research methods (i.e., Psy 302 & 303); this knowledge will be necessary to fully understand some of the course content.

**Course Goals:**

1. To provide an overview of basic endocrinology as related to the study of behavior
  - Learning objective: identify major hormones and endocrine systems
  - Learning objective: distinguish between different models of these systems (i.e., animals vs. humans)
2. To think critically about hormones and behavior and representations thereof
  - Learning objective: understand the nuanced relationship between hormones and behavior
  - Learning objective: apply this understanding to critically appraise both peer-reviewed research and popular media portrayals of these studies
3. To practice academic research writing at an advanced collegiate level

**Expectations:**

Students are expected to attend and actively participate in each class period. This is an upper-division course and the material covered within it is likely new to many psychology majors. Active engagement with the course material during lecture is necessary for good performance in this course. Some material covered in lecture will not be covered elsewhere (i.e., in the readings), making lecture attendance critical for obtaining all necessary information from the course. In addition, assigned readings are expected to be completed *prior* to the lecture for which they are assigned. Initial exposure to the material through the readings will make lecture more interesting and helpful for you. Assignments are to be turned in at the beginning of class or submitted electronically on the day they are due. Late assignments will receive a grade deduction concomitant with the degree to which the assignment is late.

A large amount of material will be covered in this course over a short period of time. For a four week, four credit course, students are expected to work 25-30 hours per week. As such, the workload for this class may seem daunting at times. If you feel like you are having trouble keeping up, 1) hang in there and 2) please come talk to the instructors.

### **Required Text:**

*An Introduction to Behavioral Endocrinology, 4<sup>th</sup> edition* by Randy Nelson  
The book is available at the Duck Store, and one copy is on reserve at the Knight Library.

### **Additional Readings:**

Readings not found in the textbook will be posted on Blackboard. These additional readings will consist of scientific articles to be read outside of class and then discussed during the class for which the reading is listed.

### **Blackboard:**

There is a Blackboard site for the class, which will host the syllabus, lectures, and most of the assignments for this class. Contact the instructors if you do not have access. Lecture powerpoints will be posted to Blackboard after class.

### **Absences:**

Given the short nature of this course, attendance is required. If you have planned absences (i.e., significant family events), let the instructor know by the end of week 1. Absences after this point will be considered unexcused unless accompanied by a doctor's note (Please see "Midterm" and "Final" below for exceptions to these rules.)

### **Requirements:**

Writing Assignment: The basic concept of the writing assignment is to allow you to demonstrate expertise in the broad field of behavioral endocrinology while practicing research writing at an advanced, collegiate level. The goal of your research paper will be to make conceptual links between human and animal research. In order to accomplish this, the paper will consist of the following tasks:

1. Choose a hormone or hormone system (e.g., cortisol or the HPA-axis);
2. Describe a behavior that influences and/or is influenced by this hormone;
3. Provide evidence of the similarities and differences between human and animal models of this hormone-behavior relationship, citing sufficient peer-reviewed sources.

A rough draft, to be completed on Blackboard and consisting of a brief description of your ideas for your research paper, is due July 7<sup>th</sup> at 11:59 pm. If you have any writing done by this point, you will have the option of including this to receive feedback from the

instructor. Points for completing your rough draft will be added to the final score for your research paper. Late assignments will receive 0 (zero) points, but feedback will still be provided.

The final draft of your research paper must be submitted on Blackboard by July 14<sup>th</sup> at 11:59 PM and will consist of 3-4 double spaced pages in APA format. Provide a minimum of 6 citations (again, in APA format) of peer-reviewed, reputable research publications (i.e., absolutely NOT Wikipedia or dictionaries). Your writing is expected to be representative of an upper-level college student: Grammar and style count!

Finally, science is inherently collaborative. Your writing should be your own but proofreading each other's papers is strongly encouraged. If you have questions about what a research paper is and is not, APA format, GOOD writing, peer-reviewed, reputable publications, or anything else, please come to office hours. We enjoy answering these questions.

Quizzes: Two quizzes will be presented on Blackboard (under the "Assignments + Tests" heading) at the end of weeks 1 and 3. They will consist of several questions representative of content found on the midterm and final. The quizzes will be available starting at the end of class on Thursday and due the next day (Friday) at 11:59 PM.

Midterm: The midterm will be presented in class on July 3<sup>rd</sup> and will consist of 30-50 multiple choice, fill-in-the-blank, and short answer responses. Absences will not be tolerated for the midterm or final. In the extremely rare instance of an excused absence on exam day, a make-up, consisting of 10 long form essay questions, will be offered in office hours the following week or at a time of the instructors' choosing.

Final: The final exam will be a comprehensive test consisting of 40-60 questions of the same types found on the midterm and quizzes. It will be held in this classroom (Pacific 11) on Thursday, July 17<sup>th</sup> during our class time. See above for rules on make-up exams.

Participation: Attending class, asking questions, completing Minute Papers (details provided in class), and participating in discussions and in-class activities will allow you to earn full credit for participation.

### **Grading:**

Item:	Percent of Final Grade:
Final Exam	35%
Midterm	25%
Research Paper and Rough Draft	20%
Quizzes	15% (total for both quizzes)
Participation/Attendance	5%

## **Academic Dishonesty:**

This class will follow the definitions and rules put forth in the Student Conduct Code (<http://tinyurl.com/3t76cbq>). It can be summarized as “Don’t cheat.” This includes using answers that aren’t your own on tests and quizzes and/or plagiarizing on essays. All assignments will be submitted to Safe Assign to check for plagiarism. As instructors, we are mandated to report any academic misconduct to the Office of Student Conduct and Community Standards. If you have questions about the fine line between paraphrasing/quoting/citing and plagiarizing, please talk to the instructors.

## **Accessible Education:**

If you have a documented disability and anticipate needing accommodations in this course, please make arrangements to meet with the instructors as soon as possible. The University of Oregon is working to create inclusive learning environments. Please notify the instructor if there are aspects of the instruction or design of this course that result in disability related barriers to your participation. You are also encouraged to contact the Accessible Education Center (formerly Disability Services) in 164 Oregon Hall at 346-1155 or [uoaec@uoregon.edu](mailto:uoaec@uoregon.edu). Also, please request that an AEC adviser to send a letter verifying your disability and accommodation needs. For a list of resources provided by the Accessible Education Center, please see <http://aec.uoregon.edu/about/index.html>

## **Additional Readings List:**

### **Week 1:**

Berenbaum, S. A., & Beltz, A. M. (2011). Sexual differentiation of human behavior: effects of prenatal and pubertal organizational hormones. *Frontiers in Neuroendocrinology*, 32(2), 183-200.

### **Week 2:**

van der Meij, L., Almela, M., Buunk, A. P., Fawcett, T. W., & Salvador, A. (2012). Men with elevated testosterone levels show more affiliative behaviours during interactions with women. *Proceedings of the Royal Society: Biological Sciences*, 279(1726), 202-208.

### **Week 3:**

Boksem, M. A., Mehta, P. H., Van den Bergh, B., van Son, V., Trautmann, S. T., Roelofs, K., ... & Sanfey, A. G. (2013). Testosterone Inhibits Trust but Promotes Reciprocity. *Psychological Science*, 24(11), 2306-2314.

### **Week 4:**

Fisher, P. A., Van Ryzin, M. J., & Gunnar, M. R. (2011). Mitigating HPA axis dysregulation associated with placement changes in foster care. *Psychoneuroendocrinology*, 36(4), 531-539.

### Course Schedule:

DATE	DAY	TOPIC	READINGS
6/23/14	M	Course Overview and Study of Behavioral Endocrinology	Nelson Ch 1
6/24/14	T	Techniques	Nelson Ch 1 & 2
		Field Trip: Social Psychoneuroendocrinology Lab	
6/25/14	W	Endocrine Systems & Sex Determination/Differentiation	Nelson Ch 2 & 3
6/26/14	R	Sex Determination/Differentiation	Nelson Ch 3 Wk 1 Article
		Quiz #1	
6/30/14	M	Sex Differences	Nelson Ch 4
7/1/14	T	Male Reproductive Behavior	Nelson Ch 6 Wk 2 Article
7/2/14	W	Female Reproductive Behavior	Nelson Ch 5
7/3/14	R	MIDTERM	
7/7/14	M	Social Behavior	Nelson Ch 8
			Knight & Mehta, <i>in press</i>
		Research Paper: <i>Rough Draft due on Blackboard by 11:59 PM</i>	
7/8/14	T	Parental Behavior	Nelson Ch 7
7/9/14	W	Aggression	Nelson Ch 10
7/10/14	R	Learning and Memory	Nelson Ch 11 Wk 3 Article
		Quiz #2	
7/14/14	M	Stress	Nelson Ch 9
		Research Paper: <i>Final Draft due on Blackboard by 11:59 PM</i>	
7/15/14	T	Affective Disorders	Nelson Ch 12
7/16/14	W	Circadian Rhythms	Nelson Ch 13 Wk 4 Article
7/17/14	R	FINAL	