

Hormones and Behavior (Psych C116/Bio C143B)

Instructor:

TBD
Office Hours: TBD
Office: TBD

Graduate Student Instructors:

TBD
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Textbook: *An Introduction to Behavioral Endocrinology, 4th Edition*, by Randy J. Nelson, Sinauer, Sunderland, MA.

Readings: Additional readings from the primary literature will be distributed to be critically reviewed during Discussion Sections. These readings will complement material during course lectures.

Course Description: This course will provide a comprehensive overview of behavioral endocrinology beginning with hormone production and actions on target tissues and continuing with an exploration of a variety of behaviors and their hormonal regulation/consequences. We will use a comparative approach to examine the reciprocal interactions between the neuroendocrine system and behavior, considering the effects of hormones on development and adult behavior in addition to how behavior regulates endocrine physiology. While much of the course will focus on non-human vertebrate species, the relevance to humans will be explored where appropriate. Topics include: sexual differentiation and sex differences in behavior, reproductive, parental, and aggressive behaviors, and hormonal and behavioral homeostatic regulation.

Grades: Two mid-semester examinations (30% for first exam, 35% for second exam), one final examination (35%). **** There will be NO makeup exams, so please do not miss exams ****

| <u>Class</u> | <u>Date(s)</u> | <u>Topic</u> | <u>Book Chapter</u> |
|--------------|----------------|--|----------------------------------|
| Week 1 | | Class Introduction, Intro to Behavioral Endocrinology | Chapter 1 |
| Week 2 | | Endocrine techniques/measures Intro to Endocrine System | Chapter 1 Chapter 1 |
| Week 3 | | Intro to Endocrine System Glands, axes, and regulation | Chapter 2 Chapter 2 |
| Week 4 | | Glands, axes, and regulation Sex Differentiation (history) | Chapter 2 Chapter 3 |
| Week 5 | | Sex Differentiation (mechanism) Sex Differentiation (mechanism) | Chapter 4 Chapter 4 |
| Week 6 | | ** FIRST EXAM** Male Reproduction | Chapters 1-4 Chapter 5 |
| Week 7 | | Male Reproduction Female Reproduction | Chapter 5 Chapter 6 |
| Week 8 | | Female Reproduction Female Reproduction | Chapter 6 Chapter 6 |
| Week 9 | | Parental Behavior Parental Behavior | Chapter 7 Chapter 7 |
| Week 10 | | NO CLASS – Spring Break NO CLASS – Spring Break | |
| Week 11 | | Hormones and Homeostasis ** SECOND EXAM ** | Chapter 9 Chapters 5-7 |
| Week 12 | | Hormones and Homeostasis Hormones and Rhythms | Chapter 9 Chapter 10 |
| Week 13 | | Hormones and Rhythms Endocrine control of Stress | Chapter 10 Chapter 11 |
| Week 14 | | Endocrine control of Stress Hormones and Aggression | Chapter 11 Chapter 8 |
| Week 15 | | Hormones and Aggression Loose Ends and Exam Review | Chapter 8 |