

# California State University | Stanislaus

## ZOOL 4250, VERTEBRATE ENDOCRINOLOGY

FALL 2018

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Instructor:	Mark A. Grobner	Office Hours:	MW 9:00-10:00 & R 2:00-3:00
Office:	N268		Or by appointment
Phone:	(209) 667-3268	Lecture Meeting Times:	TR 8:00-9:15
E-Mail:	<a href="mailto:mgrobner@csustan.edu">mgrobner@csustan.edu</a>	Lecture location:	Drama 027
Website:	<a href="http://www.csustan.edu/grobner">Http://www.csustan.edu/grobner</a>		

### COURSE INFORMATION

#### University Course Catalog Description

Study of the role of chemical messengers, or hormones, whether they are of endocrine or neural origin, in the control of physiological processes in vertebrates. Hormone source, synthesis, secretion, physiological roles, and pathophysiology will be stressed.

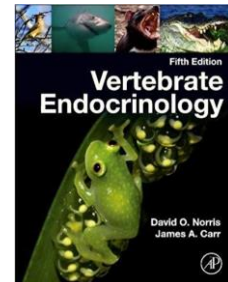
#### Course Prerequisites/Requirements

Students must have completed BIOL 3310 and CHEM 3010/3012 with grades of C- or higher.

#### Required Texts and Materials

The primary text for this class will be *Vertebrate Endocrinology, 5th Edition* by D.O. Norris and J.A. Carr, published by Elsevier, ISBN 978-0-12-394815-1.

*iClicker* class response system  
ISBN: 9781464120152



**Course Learning Objectives:** Upon successful completion of the course students will be able to

1. Describe the physiological mechanisms of hormone secretions and their actions.
2. Describe the results of hyper and hypo secretions of the hormones as they relate to homeostasis.
3. Describe the role of hormones in regulating metabolism.
4. Compare endocrine control with nerve control of physiologic functions
5. Understand hormone based effects of stress on homeostatic systems.

## COURSE ASSIGNMENTS AND GRADING

This course will be graded on four exams a critique of a journal article review.

**Exams:** Exams will be in-class, consisting of a variety of question types (e.g., multiple choice, matching, short answer, interpretative), and will be designed to assess your understanding of the material covered in lecture. Each test is worth 75 points.

**Critical review:** The review will be a **critique of a journal article** relevant and recent to endocrinology (25 points). In this assignment, you shall be given a choice of recent journal articles and shall select one to evaluate. The critique will examine both the science and the presentation of data used by the author(s). The critique should be no more than two pages, double spaced in a 12 font, in length. This review will be submitted online to Turnitin, the link to be found in Blackboard. You will also prepare a short (5 minute) PowerPoint presentation (25 points) of your review to be presented in class. You should submit your PowerPoint to me no later than 24 hours before you signed up to present it to your classmates.

**Criteria for Critiques:** Please include a copy of the journal article along with your critique. The following criteria will be used as the basis for evaluating professional education journal critiques and critiques from any of your professional readings:

1. All work must be electronically submitted, double-spaced, clearly organized, and proofed.
2. The critique is worth 25 points (writing mechanics count 20% of the grade).
3. Use a narrative format/2 page max.: Provide the following information and address the following four criteria:
  - I. Provide a brief overview of the article; its purpose, focus and audience (don't just copy the abstract).
  - II. Identify the hypothesis, is it clearly stated in the paper?
  - III. Summarize key results (e.g., statistically significant comparisons)
  - IV. Summarize key conclusions – is support adequate? Are conclusions biologically significant as opposed to statistically significant?

**Grading:** Grades will be based on 350 total points to be assigned as listed in the table that follows.

Grade	Points
Exam #1	75
Exam #2	75
Exam #3	75
Exam #4	75
Critical review	25
Review ppt	25
Total points	350

I will use plus/minus grading.

Grading Scale (%)	
94-100	A
90-93	A-
87-89	B+
84-86	B
80-83	B-
77-79	C+
74-76	C
70-73	C-
67-69	D+
64-66	D
60-63	D-
0 - 59	F

### **Academic Dishonesty and Misconduct**

Exams, reports, and presentations are indicators of individual performance. Copying off another student's exam, plagiarized reports, presentations or papers constitutes cheating. There is zero tolerance for cheating. Cheating in any capacity in this class will result in penalties ranging from a minimum of a zero on the assignment or exam to a maximum of expulsion from California State University, Stanislaus as indicated by the official University Policy regarding dishonesty and misconduct.

### **Class attendance is highly recommended**

Missing classes may result in poor performance in the course. You are responsible for any information or assignments you missed in your absence.

### **Grades of "Incomplete"**

*From The University Catalog –*

An Incomplete signifies (1) that a portion of required coursework has not been completed and evaluated in the prescribed time period due to unforeseen but fully justified reasons beyond the student's control, and (2) that there is still a possibility of earning credit. It is the responsibility of the student to bring pertinent information to the attention of the instructor and to determine from the instructor the remaining course requirements which must be satisfied to remove the Incomplete. The conditions for removal of the Incomplete shall be put in writing by the instructor and given to the student, with a copy placed on file with the department chair. A final grade will be assigned when the work agreed upon has been completed and evaluated.

Any Incomplete must be made up within the time limit set by the instructor; in any case, no more than one calendar year following the end of the term in which the Incomplete was assigned. An Incomplete should never be used to (1) give a failing student an opportunity to redo unsatisfactory work or complete additional work; or (2) give a student more time to complete his/her work when the reasons for the delay have been within his/her control. This limitation prevails whether or not the student maintains continuous enrollment. Failure to complete the assigned work will result in an incomplete reverting to a grade of NC for grading options 1 and 2, and to a grade of IC for grading option 3. (See the Academic Standards section of this catalog and the Schedule of Classes Informational Guide for grading options.)

In cases of prolonged illness or any emergency which necessitates an extension of time to complete the course, the student may petition through the academic department where the course was offered. Students may not be permitted to graduate until all Incompletes are removed or evaluated as "IC" grades. Students are not to reregister in courses in which they have an Incomplete.

[http://catalog.csustan.edu/content.php?catoid=12&navoid=541&returnto=search#indi\\_stud\\_cour](http://catalog.csustan.edu/content.php?catoid=12&navoid=541&returnto=search#indi_stud_cour)

## **COURSE POLICIES: TECHNOLOGY AND MEDIA**

### **Email**

Questions regarding course materials should be directed to me at [mgrobner@csustan.edu](mailto:mgrobner@csustan.edu). Please be sure to put ZOO 4250 in the subject line as I get a lot of emails everyday and I want to be sure to respond to yours quickly. For issues with BlackBoard, please contact the helpdesk, linked from the BlackBoard login page.

### **Cell Phones**

Cell phones should not be out or used during class. During exams, cell phones must be turned off and placed upside down on your desk in front of you. Any cell phone found not in this manner during a test will result in an automatic F for the exam.

### **University Academic Conduct Policy**

There will be zero-tolerance for plagiarism/cheating. Plagiarism and/or cheating will result in a 0.0 for the class. For further information, please see the CSU Stanislaus catalog for Student Code of Conduct [http://catalog.csustan.edu/content.php?catoid=3&navoid=115#stud\\_cond](http://catalog.csustan.edu/content.php?catoid=3&navoid=115#stud_cond)

## **RESOURCES**

### **Disability Resource Services**

CSU Stanislaus respects all forms of diversity. By university commitment and by law, students with disabilities are entitled to participate in academic activities and to be tested in a manner that accurately assesses their knowledge and skills. They also may qualify for reasonable accommodations that ensure equal access to lectures, labs, films, and other class-related activities. Please see the instructor if you need accommodations for a registered disability. Students can contact the Disability Resource Services office for additional information. The Disability Resource Services website can be accessed at

<http://www.csustan.edu/DRS/>

Phone: (209) 667-3159

### **Recording Policy:**

Audio or video recording of classes (tape and digital format) or use of cameras/phones to photograph or record lectures is not permitted. An exception is made for students registered with Disability Resource Services, who are approved for this accommodation. In such exceptions, DRS students will be asked to sign a "Recording Agreement" which disallows them from sharing recordings with other individuals unless approved by the DRS program.

**COURSE SCHEDULE**  
**Tentative Lecture Schedule**

Date	Topic	Reading
8/23	Introduction to Endocrinology	1-15
8/28	Overview of Hormones	
8/30	Methods to Study Bioregulation	23-39
9/4	General Principles - Peptide Hormones	43-61
9/6	General Principles - Steroids, catecholamines and prostaglandins	61-67
9/11	Hypothalamic-Pituitary System I Anatomy, Tropic Hormones	93-109; 151-166
9/13	Hypothalamic-Pituitary System II Tropic Hormone Regulation	109-133; 167-192
9/18	Hypothalamic-Pituitary Vasopressin, Oxytocin, and Melatonin	133-145; 192-202
9/20	Exam #1	
9/25	Thyroid Hormones: Biochemistry and Mechanisms of Action	207-217
9/27	Thyroid Hormones: Biological Functions	217-228; 237-252
10/2	Adrenal Glands - Adrenal Anatomy, Biosynthesis	261-267; 291-292
10/4	Adrenal Glands - Glucocorticoids	267-272, 299-306
10/9	Adrenal Glands – Aldosterone	272-279;306-310
10/11	Adrenal Gland and Clinical Aspects	280-283; 311
10/16	Adrenal Medulla	283-287
10/18	Test #2	
10/23	General Mammalian Reproduction	317-333
10/25	Male Reproduction	333-339
10/30	Female Reproduction	329-333; 339-357
11/1	Comparative Reproduction	375-424

11/6	Comparative Reproduction	375-424
11/8	Endocrine Disruptors and Disorders	363-370; 434
11/13	Test #3	
11/15	Feeding	443-449; 483
11/20	Digestion	449-463; 484-489
11/27	Pancreas	463-471; 474-477; 489-499
11/29	Pancreas	463-471; 474-477; 489-499
12/4	Metabolism	471-474; 563-570
12/6	Calcium and Phosphate Homeostasis	501-525
12/13	Exam #4, 8:30-10:30 am	