

# Mammalian Endocrinology

## Animal Science 4260 and 5260

### Spring Semester 2014

**Location:** Animal Science Molecular Biology Building Room 103

**Time:** 2:45 pm to 4:00 pm

#### Instructor

Brenda Alexander, Ph.D.

Office Room 405

Phone 766-6278

Email [balex@uwyo.edu](mailto:balex@uwyo.edu)

Office hours by appointment (or drop in)

**Course Description:** Introduces principles of endocrinology and the role of endocrine systems in regulating metabolism, growth, reproduction and lactation in mammals. *Prerequisites: ANSC 3010, ZOO 2110 or 4220.*

**Course Objective:** Students will gain knowledge of hormone synthesis, secretion, and action of all the endocrine glands while gaining an appreciation for the complex endocrine systems. Incorporation of this knowledge into student's lives will be demonstrated through investigations of clinical case studies, in depth investigations of disorders, and timely information on how the endocrine system is involved in societal health problems such as diabetes, obesity, and reproductive failure.

**Disability Statement:** If you have a physical, learning, or psychological disability and require accommodations, please let the instructor know as soon as possible. You must register with, and provide documentation of your disability to University Disability Support Services (UDSS) in SEO, room 330 Knight Hall.

#### Textbook (*Recommended*):

Endocrine Physiology, 3<sup>rd</sup> Edition. Porterfield and White. Mosby, 2007.

Basic Medical Endocrinology, Maurice Goodman, Academic Press, 2009.

Endotext.org, The Endocrine Society Online text. <http://www.endotext.org/>

The Endocrine System, Colorado State University online text

<http://www.vivo.colostate.edu/hbooks/pathphys/endocrine/index.html>

#### Testing and Grading:

Two One Hour Exams (essay and short answer)	100 pts each	33%
Endocrinology Disorder Write-up	60 pts	10%
Disorder Presentations and Discussion Participation	60 pts	10%
Investigating the literature – Unusual hormone story	30 pts	5%
Participation	10 pts	2%
Quiz – six quizzes	120 pts	20%
Final Exam	120 pts	20%
<hr/>		
Total	600 pts	100%

#### 5160 Students- State of the Art

Presentation and Written Summary 100 pts

---

700 pts

**Extra Credit Points:**

Extra credit points will be given for students attending relevant seminars and writing up a one page synopsis of the seminar. Each student can obtain 1% extra credit per seminar which will be added to the final grade percentage. A total of three seminars will be allowed. I will make you aware of seminars that are available during the term.

**Final Exam:** The final exam will consist of approximately 50% new material and 50% from previously covered material. This course builds on previous material so you will use previously tested material to answer questions.

**Academic Honesty:** Students are responsible for their own work and anyone who practices academic dishonesty will be dealt with according to current University of Wyoming regulations. Any written work containing plagiarized material will receive a zero—no exceptions.

**Attendance:** Students are expected to participate in class and complete assignments on time. Points will be deducted from any late assignments unless due to extenuating circumstances covered by an excused absence. Please let me know when you will be missing an assignment or exam so arrangements can be made. Participation activities will occur at random, and points will only be awarded to students participating and in attendance.

**Cell phone and texting:** Out of respect for your fellow students, please turn off your cell phones while you are attending class. If you must send or receive messages or have a phone conversation, please leave the classroom.

**Spring 2014- Lecture Topics- Animal Science 4260 and 5260  
Mammalian Endocrinology**

**Section 1 – Exam February 14, 2013**

Introduction to Endocrinology  
Mechanisms of Hormone Action  
Hypothalamic-Pituitary Systems  
Posterior Pituitary  
Growth and Manipulation of Growth

**Section 2 – Exam April 2, 2013**

Thyroid and Metabolism  
Gut Hormones and Regulation of Digestion  
Appetite Regulation  
Adipose tissue as an Endocrine Gland  
Pancreas and Diabetes  
Adrenal cortex and medulla  
Stress

**Section 3 –Final Exam May 9, 2013 (3:30 – 5:30 pm)**

Reproduction (Development, Puberty, Behavior, Disorders)  
Aging