

**COMPARATIVE ANIMAL PHYSIOLOGY (BY 410/610)**  
**Fall Semester, 2007 (Tu & Th, 3:30PM-4:45PM, EB145)**  
**R.D. Watson (CH271, 934-2031)**

**Course Description:**

The central theme of this course is how animals function. We examine differences and similarities in physiological processes, and consider the functional strategies employed by animals in their environments. Examples are selected from both vertebrate and invertebrate systems. Although the general approach is comparative, common principles, rather than exceptions, are emphasized. The objective is to enhance student understanding of basic concepts and mechanisms of physiology.  
 Prerequisite: BY 256 or permission of instructor.

**Lecture Schedule:**

<b>Date</b>	<b>Topic</b>	<b>Chapter</b>
23-Aug-07	Organization of Nervous Systems	10
28-Aug-07	Neurons	11
30-Aug-07	Neurons	11
4-Sep-07	Neurons	11
6-Sep-07	Synapses	12
11-Sep-07	Synapses	12
13-Sep-07	Sensory Processes	13
18-Sep-07	Sensory Processes	13
20-Sep-07	<b>Exam 1</b>	--
25-Sep-07	Endocrine Physiology	14
27-Sep-07	Endocrine Physiology	14
2-Oct-07	Endocrine Physiology	14
4-Oct-07	Endocrine Physiology	14
9-Oct-07	Reproduction	15
11-Oct-07	Muscle	17
16-Oct-07	Muscle	17
18-Oct-07	Circulation	23
23-Oct-07	Circulation	23
25-Oct-07	Circulation	23
30-Oct-07	<b>Exam 2</b>	--
1-Nov-07	Respiration	21,22
6-Nov-07	Respiration	21,22
8-Nov-07	Osmoregulation	25,26
13-Nov-07	Osmoregulation	25,26
15-Nov-07	Kidney and Excretion	27
20-Nov-07	Kidney and Excretion	27
27-Nov-07	Nutrition, Feeding, and Digestion	4
29-Nov-07	Nutrition, Feeding, and Digestion	4
4-Dec-07	Thermal Relations	8
6-Dec-07	Thermal Relations	8
13-Dec-07	<b>Final Exam (4:15PM – 5:45PM)</b>	--

**Text:**

Hill, R.W., Wyse, G.A., and Anderson, M. (2004) Animal Physiology, Sinauer Associates, Sunderland, MA.

**Requirements and grading:** Exam 1 = 100 points

Exam 2 = 100 points

Final exam = 125 points (100 points on material since Exam 2 + 25 points comprehensive)

In general, grades will be assigned according to the following percentages:

percent    grade

90-100    A

80-89    B

70-79    C

60-69    D

<60    F

In addition to the above exams, students registered for BY 610 will be required to complete a term paper on a topic relevant to *Comparative Animal Physiology*. The paper is due 4 December 2007 and is worth 10% of the final grade.

**Office Hours:** M 1-3 PM, W 9-11 AM, or by appointment (934-2031, CH271)