Class information posted at Learn@UW.

Times: Lectures T/Th: 12:30-1:45 p.m.
Optional Discussions: Wednesday 3:30-4:20 p.m., Friday 2:30-3:20 p.m.

Instructors: Stephen C. Gammie, Ph.D.
Office: Room 213 Zoology Research Building (need to call to be let in building)
Office hours: By appointment; after lecture; Monday 9:00-10:00 a.m.
E-mail: scgammie@wisc.edu
Phone: 262-3457 (office)

Sarah J. Alger, Ph.D.
Office: Room 619 Brogden Psychology Building
Office hours: By appointment; after lecture; Monday 10:30-11:30 a.m.
E-mail:sjalger@wisc.edu
Phone: 263-5072 (office)

Teaching Assistant: Marijan Posavi
E-mail: posavi@wisc.edu
Phone: 262-9225
Office hours: To be announced.

Text: Animal Physiology
Hill, Wise, and Anderson (2008)
Sinauer Publishers

Course Requirements and Grading:
Exams: Exams will cover lectures and reading assignments. The exam format will be multiple choice.

Discussions are available to help the student understand lecture and reading material and preceding each exam the Discussion should be viewed as a review session.

Point Distribution:
Exam I 100 points
Exam II 100 points
Exam III 100 points
Exam IV 100 points

---------------------------------------------
Total 400 points

Letter Grades:
92-100% = A; 88-91% = AB; 82-87% = B; 78-81% = BC; 70-77% = C; 60-69% = D; 0-59% = F
Lecture Topics and Key Dates:

Key Dates:  
Exam 1 = **February 16** (will include material presented prior to 1\textsuperscript{st} exam)  
Exam 2 = **March 13** (will only include material presented between 1\textsuperscript{st} and 2\textsuperscript{nd} exams)  
Exam 3 = **April 17** (will only include material presented between 2\textsuperscript{nd} and 3\textsuperscript{rd} exams)  
Exam 4 = **May 10** (will only include material presented between 3\textsuperscript{rd} and 4\textsuperscript{th} exams)

1.24  **Introduction: Begin pheromone perception:** 56-61; 322-25; 335-38; 348-55; 417-19  
1.26  **Pheromone and olfactory perception and behavioral consequences:** 271-301; 303-322; + pdfs  
1.31  **Spatial perception: magnetic and electric fields:** 326-27; 371-78; 453-466; 502; + pdfs  
2.2  **Comparative mechanisms of vision:** 355-63; 368-9  
2.7  **Internal & external environmental perception:** 338-41; 564-567  
2.9  **Conserved hormonal principles:** 391-404; 415-17  
2.14  **Continuation of material**  
2.16  **TEST**  
2.21  **Ecdysis behavior in insects: a model system of hormones, CNS, & behavior:** 419-23 + pdfs  
2.23  **Food intake, diet, digestion, obesity, & peptides:** 409-12; + pdfs  
2.28  **Comparative stress responses: an integration of physiological responses including changes in brain activity, hormones, blood flow, digestion, and immune responses:** 381-83; 404-09; 412-13; + pdfs  
3.1  **Stress continued**  
3.6  **Conserved mechanisms of addictive behaviors; Affiliative & reproductive physiology and behavior: comparative species studies:** 415; 449-50; + pdfs  
3.8  **Continuation of material and review**  
3.13  **TEST**  
3.15  **Respiration:** 547-579 + pdfs; additional background: 533-545  
3.20  **Respiration continued**  
3.22  **Circulation:** 611-640 + pdfs; additional background: 581-608  
3.27  **Circulation continued**  
3.29  **Aerobic and anaerobic metabolism:** 167-188 + pdfs  
4.10  **The mammalian diving reflex:** 643-660 + pdfs  
4.12  **Continuation of material and review**  
4.17  **TEST**  
4.19  **Adaptation:** 23-27; 10-23 + pdfs  
4.24  **Thermoregulation:** 205-251 + pdfs  
4.26  **Osmoregulation:** 681-713; 715-747 + pdfs; additional background: 663-678; 749-761  
5.1  **Control of movement:** 469-488; 489-511 + pdfs  
5.3  **Control of movement continued**  
5.8  **Continuation of material and review**  
5.10  **TEST**
Suggestions on Readings

Textbook readings are suggested to provide additional background to concepts presented in lecture. They will likely deepen and clarify your understanding of the material, but ultimately the exam questions will focus on the lecture material.

PDF readings are a different story: They are assigned reading. The intention is that you will read the PDF article prior to class and be prepared to discuss it. The discussions will be class discussions, and I will only play a moderator’s role in them. That is to say, we will discuss only the aspects of the articles that you bring up and I will not review material in the articles in class or highlight what details will be on the exam. There will be exam questions on each assigned PDF article and those questions will be on particular themes regardless of whether the class discussed them or not. Here are the themes:

1) What was/were the authors’ hypothesis/hypotheses?
2) Briefly, what were the methods?
3) What were the major results and how did they relate to the hypothesis/hypotheses?
4) What were the authors’ conclusions and do you believe them? Why or why not? What additional evidence would strengthen your belief?