



(ZOO 612) - COMPARATIVE & EVOLUTIONARY PHYSIOLOGY LAB

Credits: 2

Course URL: <https://canvas.wisc.edu/courses/188011>

Course Designations and Attributes

Biological Science. Counts toward the Natural Science requirement.
Counts as Liberal Arts and Science credit in L&S. Advanced.

Meeting Time and Location:

Lecture: Monday 1:20-5:20 in Noland Hall 355

Instructional Mode

Face to face instruction in a laboratory setting.

45 Hours Per Credit – One credit is the learning that takes place in at least 45 hours of learning activities, which include time in lectures or class meetings, in person or online, discussion, exams, presentations, tutorials, reading, writing, studying, preparation for any of these activities, and any other learning activities.

INSTRUCTORS

Instructor: Scott Hartman (sahartman@wisc.edu)

Availability

Office hours TBD, 507 Noland Hall (and by appointment).

Teaching Assistant:

Jacki Whisenant (whisenant@wisc.edu) - Availability TBD and by appointment

OFFICIAL COURSE DESCRIPTION

Course Description

Investigating physiological adaptations in different animals. Students design and execute experiments. Only invertebrate animals are used.

Course Requisites

Previous or concurrent enrollment in zoology 611.

LEARNING OUTCOMES

- Demonstrate research mastery and evaluate prior research in a chosen topic, summarizing current research trends.
- Provide and accept constructive criticism.
- Practice developing and executing experiments in physiological processes.
- Work collaboratively in groups.
- Design a professional presentation to communicate results.

GRADING

Course Grading Scale	90-100 = A	78-79.99 = BC
	88-89.99 = AB	70-77.99 = C
	80-87.99 = B	60-69.99 = D

Grades are not based on a curve. There are 100 possible points, divided as follows:

- First paper: 15 points
- Final research paper: 60 points
- Oral presentation of final paper: 15 points
- Attendance/participation: 10 points

REQUIRED COURSE MATERIALS

- Lab coat and eye protection are mandatory while doing experiments
- Laptop computer
- Statistics software you are familiar with, or the installation of R studio (which is free)

LAB SCHEDULE

Week	Date	Topic
1	NA	No lab (the semester starts on a Tuesday)
2	M 1/27	Introduction to the course
3	M 2/3	Statistics & experimental design I: <i>Lumbriculus variegatus</i> escape response, students design experiment, brainstorm research topics

4	M 2/10	Carry out experiments, begin data analysis, initial research for independent topics
5	M 2/17	Statistics & experimental design II: Round-robin critiques and feedback on first experiment, experimental design redo (<i>Artemia</i> and <i>Daphnia</i> available for experiments as well)
6	M 2/24	First paper due. Independent project development: initial research summary and peer feedback
7	M 3/2	Continue research & feedback, readiness check. <i>Potentially</i> begin experiments
8	M 3/9	Begin (or continue) experiments
9	M 3/16	Spring Break
10	M 3/23	Continue experiments, presentation example
11	M 3/30	Continue experiments
12	M 4/6	Continue experiments/finish projects
13	M 4/13	Statistical analysis of data from independent projects
14	M 4/20	Peer review of research paper drafts, hand in draft paper, work on presentations
15	M 4/27	In-class presentations. Final papers due 5/2

RULES, RIGHTS & RESPONSIBILITIES

See the Guide's to [Rules, Rights and Responsibilities](#)

ACADEMIC INTEGRITY

By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison's community of scholars in which everyone's academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be

forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to studentconduct.wiscweb.wisc.edu/academic-integrity/.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

McBurney Disability Resource Center syllabus statement: The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA. <http://mcburney.wisc.edu/facstaffother/faculty/syllabus.php>

DIVERSITY & INCLUSION

Institutional statement on diversity: Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world. <https://diversity.wisc.edu/>

FINAL THOUGHTS

If you encounter problems not outlined in the syllabus, or you need any clarification don't hesitate to contact the instructor or teaching assistant. When possible bring up scheduling conflicts proactively - we want you to succeed, and will meet you halfway whenever possible, but that requires open lines of communication.