

<u>Dates</u>		<u>Topic</u>
Jan. 15-17	<u>Lab 1</u>	Diversity – Print your own copies of exercise and worksheet from Moodle and bring to lab
Jan. 22-24	<u>Lab 2</u>	Fetal pigs- the mammalian model for Diversity and Adaptation (bring text to lab) <u>Diversity Worksheet due at beginning of lab</u>
Jan. 29-31		Fetal Pigs Continued <u>Diversity Lab Practical Quiz</u>
Feb. 5-7	<u>Lab 3</u>	Animal Embryology (bring text to lab) <u>Lab practical quiz on pig material</u>
Feb. 12-14		Animal embryology data analysis and presentation <u>Lab practical quiz on Animal Embryology</u>
Feb. 19-21	<u>Lab 4</u>	Introduction to Plant Biology – Flowers Pollen tube formation Lab – Testing the Central Dogma <u>Flower Worksheet due at end of lab</u>
Feb. 26-28	<u>Lab 5</u>	Frog Heart Physiology lab <u>Pollen tube worksheet due at beginning of lab</u>
Mar. 11-13	<u>Lab 6</u>	Crayfish Behavior lab <u>Frog heart write-up due at beginning of lab</u> <u>Brief behavior write-up due at end of lab</u>
Mar. 25-27	<u>Lab 7</u>	Mesocosm Lab Tree carbon assignment <u>Student groups get instructor approval for independent experiments</u> Begin work on behavior experiments
Apr. 1-3		Work on behavior experiments <u>Meocosm worksheet due</u> All experiments must be done by 10 PM on Sunday, April 1
Apr. 8-10		Work on posters
Apr. 15-17	<u>Lab 8</u>	<u>Behavior posters due.</u> Ecology lab or print posters (depending on weather) <u>Ecology worksheet due by end of lab</u>
Apr. 22-24	<u>Lab 9</u>	Ecology lab or print posters (depending on weather); <u>Tree carbon assignment due at the beginning of lab</u> <u>Ecology worksheet due by end of lab</u>
Apr. 25		<u>Research Symposium: poster presentations of behavior experiments</u> Attendance is required

GOALS

After successfully completing this laboratory course, the student should be able to

- 1) recognize and understand some of the diversity of adaptations among living organisms
- 2) describe the basic processes and stages of vertebrate development
- 3) apply the scientific method to the study of animal development, plant growth, physiology, behavior, and ecology, and
- 4) appropriately use references and statistical analyses.

GRADING

Diversity Worksheet	20
Diversity Quiz	10
Pig Quiz	15
Embryology Quiz	10
Embryology Data & Presentation	20
Flower worksheet	10
Pollen tube worksheet	10
Physiology Lab Write-up	20
Behavior Write-up	10
Mesocosm worksheet	10
Ecology Worksheet	20
Tree Carbon assignment	10
Poster Presentation and attendance	<u>50</u>
Total	215

Grades will be assigned according to the following scheme:

100-90% = A to A-	where	80-82% = B-
90-80% = B+ to B-		83-86% = B
80-70% = C+ to C-		87-89% = B+, etc.

All assignments are due on the dates given on the syllabus. Others assignments and due dates may be given in class. Late assignments will be accepted (resulting in mandatory point deductions) only at the discretion of the professor.

ATTENDANCE

Attendance is required. Missed work cannot be made up; a grade of zero will be recorded for missed work. If there are extenuating circumstances, students may be able to attend a different laboratory section **only with advance permission** from **both** the regular professor and the professor whose section the student wishes to attend.