

Biology 3408 – Invertebrate Zoology - Fall 2019
Lecture MWF 10:00-10:50 WSB 101
Syllabus

Instructor: Dr. Chris M. Ritzi

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Office hours: MWF 11:00-12:00 PM

R 2:00 – 5:00 PM

or by appt.

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Class Website: [http:// sulross.blackboard.edu/](http://sulross.blackboard.edu/) & <http://faculty.sulross.edu/critzi/>

Text: Biology of the Invertebrates. Seventh Edition. J. A. Pechenik

Course Description: It is the goal of this class to focus on three aspects of invertebrate zoology. The first of these is to understand functional morphology, in terms of its effect on invertebrate life. The second major focus is to examine life from the view of ontogeny, so to understand the importance of development. The final focus of this course is to examine the phylogeny of the invertebrates, so to see how they are related to one another.

Student Learning Outcomes

The biology student graduating with a BS in Biology should be able to:

SLO1 - The student will be able to demonstrate an understanding of basic biological concepts, including but not limited to evolution via natural selection, cell theory, and the role and function of DNA.

SLO2 - The student will be able to demonstrate utilization of various field techniques toward addressing scientific questions in the specific discipline. These field techniques can include, but are not limited to, plant collection and processing, various animal collection techniques, ecological surveying and sampling, and biodiversity indexing.

SLO3 - The student will be able to use biological instrumentation to solve biological problems using standard observational strategies.

SLO4 - The student will develop writing skills by summarizing and critiquing recent relevant biological literature.

Student Learning Objectives for this Course: The following 4 objectives will be covered over the course of the term. The first is to introduce how invertebrates are organized, how they work, & how they reproduce. Secondly, students should come away from this class with an understanding of the biodiversity inherent in the animal groups not including the vertebrates. Next, this course should promote an appreciation of invertebrates and their many innovations. Finally, this course should provide a foundation to the field of invertebrate zoology and any of its daughter disciplines.

Grading: Your grade will be assigned based on the percentage of points you get out of a total possible 600 points. (100pt exams (3), 100 pt quizzes (5), 200pts from lab).

Tests: There will be a total of 3 exams, each worth 100 points. Quizzes will be given throughout the semester to assess material between exams. If you miss an exam or quiz and have a legitimate excuse, contact me within 24 hours of the test and we will arrange a make-up test. If you do not contact me within 24 hours, you will receive a zero on that exam.

Attendance: Students missing 20% of lectures (6 lectures) OR labs (3 labs) shall be dropped from the class per the SRSU catalog. Any student dropped for excessive absences will receive an F for the course grade. Please notify your instructor BEFORE missing class for authorized activities, death in the family, or illness. Exams missed for any reason must be made up within one week of the originally scheduled date. REGARDLESS OF WHY AN ABSENCE OCCURS, YOU MAY BE GIVEN AN F FOR THE COURSE GRADE IF YOU ACCUMULATE SIX ABSENCES.

Lecture courtesy: The general rules of classroom etiquette are below.

- 1) Please do not talk to others in class while the instructor is lecturing. If you have a question, ASK THE INSTRUCTOR! That's what I'm here for.
- 2) No eating, chewing, dipping, etc.
- 3) If you are going to attend class, please do so. Leaving and returning to class repeatedly is disruptive, as well as showing up after half the period is over.
- 4) Please turn cell phones off or to silent while in class. They are disruptive to the entire class, and distract others as well.

Students with disabilities will be provided reasonable accommodations. If you would like to request such accommodations because of physical, mental, or learning disability, please contact the ADA Coordinator for Program Accessibility at 837-8203, FH 112.

Tentative Lecture Outline

Date	Lecture topic	Chapter
Aug 26	Introduction	1
Aug 28	Architecture	2
Aug 30	Phylogeny	2
Sept 2	Labor Day – No Class	
Sept 4	Development	2
Sept 6	Choanoflagellata	3
Sept 9	Porifera	4
Sept 11	Placozoa	4
Sept 13	Cnidaria	6
Sept 16	Cnidaria	6
Sept 18	Cnidaria	6
Sept 20	Ctenophora	7
Sept 23	Exam I	
Sept 25	Platyhelminthes	8

Sept 27	Platyhelminthes	8
Sept 30	Mesozoa	9
Oct 2	Nemertines	11
Oct 4	Gnathifera	10
Oct 7	Annelida	13
Oct 9	Annelida	13
Oct 11	Sipuncula	13
Oct 14	Mollusca	12
Oct 16	Mollusca	12
Oct 18	Mollusca	12
Oct 21	Lophophorates	19
Oct 23	Lophophorates	19
Oct 25	Exam II	
Oct 28	Onychophora & Tardigrades	15
Oct 30	Origin of Arthropods	15
Nov 1	Arthropods	14
Nov 4	Arthropoda	14
Nov 6	Nematoda	16
Nov 8	Nematoda	16
Nov 11	Veterans Day Holiday – No Class	
Nov 13	Cycloneuralia	17
Nov 15	Unknown Phyla	18
Nov 18	Echinodermata	20
Nov 20	Echinodermata	20
Nov 22	Echinodermata	20
Nov 25	Hemichordata	21
Nov 27	Thanksgiving Holidays – No Class	
Nov 29	Thanksgiving Holidays – No Class	
Dec 2	Chordates	22
Dec 4	Chordates	23
Dec 5	Dead Day	
Dec 6	10:15am - Final Exam for MWF 10:00	

Note – This outline is subject to change for reasons of course interest, time constraint, or instructor whim. The exams will be administered on the dates given, unless material relevant for a given exam has not been covered. Under such cases, an exam may be moved a class period or two to aid in the clarity and understanding of the material.