

University of Victoria
Fall 2022

BIOLOGY 321
SURVEY OF INVERTEBRATES

Instructor:

Dr. Benjamin Neal
Email

Course Content: The 'invertebrates' represent 90% or more of all species of multicellular animals. The organisms belonging to this informal grouping are not defined by the possession of any unique characteristic, but only by what they lack – an internal skeleton (cartilage or bone) protecting a brain and dorsal nerve cord. Biology 321 will primarily focus at the level of the whole organism and will be organized by phyla. It will deal with major elements of body plans,

Assessment of Laboratory Learning:

1) Midterm and Final Lab Exams: The midterm lab exam will be held during the week of Oct 10, 2022 and is worth 10% of your final grade. It will cover material in Labs #1 – 4. The final lab exam will be held during the week of Nov 28, 2022 and will be worth 15% of your final grade. It will cover material in Labs #5 – 9.

2) Animal Profile: This lab assignment will provide students with the opportunity for personal discovery about an invertebrate. Each student will study the anatomy and behaviour of a chosen invertebrate living in the ocean, freshwater, or terrestrial habitat. The profile will be based mostly on personal observations. Observations should be documented by images recorded by camera (e.g. smart phone camera or camera mounted on a dissecting or compound light microscope in the lab) or by drawings from observations of the chosen animal. The observational data will be incorporated into a report on the biology of the animal. You may also choose to include a short video (optional) as a component of your Animal Profile. Although personal observations should form the major part of the project report, it is expected that information from the literature will also be included in the report. You should try to identify the specimen to the level of genus and possibly even species. If this is not possible, don't get too stressed and don't let it get in the way of your enjoyment of the project. Talk to your TA about difficulties with genus/species identification; it may be sufficient to identify just the family placement. Submitted "Animal Profiles" will be made available to other students in each lab section to disseminate the acquired knowledge about diverse invertebrates! For more information about the Animal Profile see the "Lab Assignments" module on the BIOL 321 Brightspace page. Due date for submission of your Animal Profile is October 31, 2022 at 9:00 AM.

3) Research essay: The second major assignment within the lab of BIOL 321 will be an essay on a topic relating to invertebrate biology. You will select a topic from three that will be provided by the Senior Lab Instructor. This assignment will require you to read scientific literature relating to the topic, write an essay outlining important information and major issues relating to the topic, and provide a critical assessment of controversies or a prospectus of possible future directions for research. For more information about the Essay Assignment please see the "Lab Assignments" module on the BIOL 321 Brightspace page. Due date for submission of your Essay will be November 14, 2022 at 9:00 AM.

4) Late lab assignments: Late submission of the "Animal Profile" and the "Essay" -2 (a) 0 (") 4 (A) 2 (Tm /TT1

Assessment of Learning for overall course: Distribution of final grades will be based on the following rubric:

Lecture Midterm Exam	20%
Laboratory Midterm Exam	10%
Final Laboratory Exam	15%
Animal Profile	10%
Research Essay	10%
Lecture Final Exam	35%

PLEASE NOTE THAT THE FACULTY OF SCIENCE REQUIRES THAT STUDENTS RECEIVE A PASSING GRADE (50%) IN THE LABORATORY SECTION OF A SCIENCE COURSE FOR PERMISSION TO WRITE THE FINAL LECTURE EXAM.

Policy on Missed Exams: The University of Victoria has waived the requirement for a note from a medical professional in the event that illness or mental health issues prevent writing an exam.

Grade assessment when one or more assignments or exams are missed:

If a student is waived for the lecture midterm exam, the lab midterm exam, or the lab final exam, the student's final grade will be calculated on the basis of all course work that was completed, without penalty. If a student misses two or more of the above listed items, an alternative one or two exams will need to be completed at a later date, as per the discretion of the instructor.

Incompletions: If a student is approved to miss the final lecture exam and cannot achieve the reschedule date to write it before final grades are submitted for the course, they must submit a formal request for concession using a Request for Academic Concession form (<https://www.uvic.ca/registrar/assets/docs/record-forms/rac.pdf>). If the concession is granted, arrangements will be made to write a final lecture exam at a later time. A grade of N (incomplete) will be assigned until the final lecture exam is completed and the final grade calculated, at which time the N grade will be changed to the calculated grade.

Final exam period: