

INVERTEBRATE ZOOLOGY BI 451-551 8 credits
Oregon Institute of Marine Biology, University of Oregon

Invertebrates comprise roughly 97% of animal species on the planet. The Invertebrate Zoology course at OIMB is a study this fantastic diversity of life as illustrated by marine invertebrates in one of the most ideal places in the world for such a study, the Pacific Northwest - or more precisely, the edge of the Eastern Pacific. Invertebrates are beautiful. You will see over 500 different kinds on invertebrates this summer. Invertebrates also serve as excellent models to understand general biological processes as well as to appreciate the unifying features and the unique morphological, physiological and ecological diversity of organisms. This course will provide you with a comprehensive introduction to the major invertebrate phyla through a combination of lectures, laboratories, and field trips. The course focuses on the relationships between structure and functions such as locomotion, feeding, respiration, excretion and reproduction. Embryology and larval biology will be included, as well as some discussion of taxonomy, phylogeny, behavior, and life history.

You will have access to the laboratory day and night, 7 days a week. The class meets all day Monday, Wednesday, and Friday and has a number of field trips to local environments, mostly during class time, but occasionally earlier or later, depending on the tides. You are encouraged to go to the intertidal on your own whenever you find the time and tides. You will be most comfortable with a good pair of rubber boots (knee-high boots or hip-waders; chest-waders are not recommended), a waterproof windbreaker, hat, and maybe rain pants or sunscreen, depending on the weather.

Required materials:- all available for purchase at OIMB

- Text book
- A lab notebook - a loose-leaf notebook with unlined paper (separate from lecture notebook)
- Small size Rite n Rain booklet
- Basic dissecting tools: forceps, medium tipped; scissors, scalpel, disposable blades, probe, and a plastic ruler

SAMPLE COURSE SCHEDULE

Actual schedule will depend on instructor and time of low tides.

	Monday	Wednesday	Friday
Week 1	Course Introduction Library Tour Trip to the docks Lab Introduction, Microscopy	Levels of Organization Porifera - sponges	Field Trip – sheltered rocky shore Cnidaria
Week 2	Cnidaria Ctenophora Night Lighting	Field Trip Echinodermata	Echinodermata Hemichordata
Week 3	Field Trip - exposed rock shore Urochordata	Field Trip - estuary Platyhelminthes Nemertea	Annelida

Week 4	Field Trip - mudflat Annelida Sipuncula	Examination I	Boat Trip (dredging, plankton) Mollusca
Week 5	Field Trip – rocky shore Mollusca	Field trip – estuary sand flats Mollusca	Mollusca
Week 6	Bryozoa Brachiopoda	Field Trip – Docks Phoronida	Nematoda Kinorhychna Gastrotricha
Week 7	Field Trip rock/sand Rotifera Arthropoda	Field Trip Sandy beach Arthropoda	Arthropoda
Week 8	Chaetognatha Night Light	Final Examination	Lab Cleanup