Meeting times: Monday 9:00-10:50 a.m., Room 232 SB2
              Wednesday 9:00-10:50 a.m., Room 232 SB2
              Friday 8:00-10:50 a.m., Room 403 SB1

Field trips:
   20 April,  7:45 – 11:00 a.m. Field trip to Columbia River Gorge/Sandy River
   4 May,  8:00 a.m. – 3:00 p.m. Field trip to Catherine Creek, WA
   18 May,  7:00 a.m. – 4:00 p.m. Field trip to Oregon coast


Instructor:  Dr. Susan Masta, email smasta@pdx.edu
Teaching Assistant:  Bret Cline, email bcline@pdx.edu

Office hours:  Wednesday 12:00–2:00, Room 515 SB1, 725-8505

Course Description:  In this course you will become familiar with some of the tremendous
diversity present in invertebrates. In addition to taxonomic diversity, we will explore the vast
differences among invertebrate anatomies, feeding and reproductive behaviors, lifestyles, sexual
systems, and physiologies. Throughout the course, we will use an evolutionary perspective to
examine traits as varied as parasitic lifestyles, venoms, silk production, dispersal ability, and
eyes. The Friday labs and field trips are integral components of the course, where you will have
the opportunity to observe both living and preserved specimens. WebCT will be used for posting
some assignments and readings, so you must have an active Odin account at PSU to access this.

Grading:  4 quizzes (24%); final quiz (15%); lab assignments and notebooks (20%); class
assignments and presentations (20%); term project report (15%); term project presentation (6%).

Tentative Schedule:

2 April  What is an Invertebrate?: Diversity, Evolution, and Phylogenetics (Ch. 2, pp. 14-29)
4 April  Evolution of Flight / Arthropods: Hexapods part I (Ch. 14)
6 April  LAB: Hexapod Diversity
9 April  Arthropods: Hexapods part II (Ch. 14)
11 April  Silk / Venoms / Arthropods: Arachnids (Ch. 14)
13 April  LAB: Arachnid Diversity
16 April  Student Presentations: Focal taxa/venom / Arthropods: Myriapods (Ch. 14)
18 April QUIZ 1: Hexapods and Arachnids. / Arthropods: Crustaceans (Ch. 14)
20 April (7:45-11) FIELD TRIP to Columbia River Gorge Scenic area.
23 April Pycnogonids and Merostomata (Ch. 14) / Tardigrades and Onycophorans (Ch.15)
25 April On Being Small / Rotifers (Ch. 10) / Gastrotrichs (pp. 447-449)
27 April LAB: Crustaceans, Myriapods, Rotifers, and Gastrotrichs
30 April Evolution of Eyes / Molluscs (Ch. 12)
2 May Molluscs (Ch. 12). / Student Presentations: eyes.
4 May (8 am – 3 pm) FIELD TRIP to Catherine Creek.
7 May QUIZ 2: Crustaceans through Molluscs. / Developmental Patterns (Ch. 2, pp. 5-15) / Porifera and Placozoa (Ch. 4)
9 May Cnidarians (Ch. 6). Ctenophores (Ch. 7)
11 May LAB: Molluscs, Poriferans, and Cnidarians
14 May Getting Around / Echinoderms part I (Ch. 20)
16 May Student Presentations: getting around. / Echinoderms part II (Ch. 20)
18 May (7:00 am – 4 pm) FIELD TRIP to Oregon coast.
21 May QUIZ 3: Cnidarians through Echinoderms. / Sexual Systems / Annelids part I (Ch. 13)
23 May Annelids part II / Nemerteans (Ch. 11)
25 May LAB: Annelids and Tardigrades
28 May [PSU closed – Memorial Day]
30 May Student Presentations: sexual systems & finding a mate. / Parasitic Lifestyles / Platyhelminthes (Ch. 8)
1 June LAB: Echinoderms and Parasites
4 June Term project due. / Live Fast, Die Young / Nematodes (Ch. 16)
6 June Overview: Putting it all together
8 June FINAL QUIZ (lab and lecture). Diversity LAB. Lab Notebooks due.
12 June (8:00-9:50 am) Poster presentations of term projects.