Geology 144: Invertebrate Paleobiology  
Professor Susannah Porter  
Fall 2008

Syllabus

Welcome to invertebrate paleobiology! Our goal is to provide you with a firm foundation in the subject of ancient invertebrate life. Each week we will focus on one important invertebrate group: in lecture we will discuss the group’s phylogeny, biology, ecology, and fossil record, and in lab, you will get hands-on access to representative fossil specimens. Additionally, we will discuss important topics in invertebrate paleobiology, including taphonomy, extinctions, functional morphology, biostratigraphy, paleoecology, and biomineralization.

Throughout the course, I encourage an open atmosphere of enthusiasm and discussion. There is no such thing as a stupid question, and lectures are much more fun when they are interrupted from time to time. These organisms are beautiful and fascinating, there is much to learn from them and there is much we don’t know. So please don’t be shy – ask questions!

Information about your professor:
Name: Susannah M. Porter  
Office: Webb 1117  
Email: porter@geol.ucsb.edu  
Office phone: x8954  
Cell phone: 310-613-3694 (don’t call after 8 pm!)  
Office hours: TBD

Information about your TA:
Name: Leigh Anne Riedman  
Office: Webb 1115  
E-mail: lriedman@umail.ucsb.edu  
Office hours: TBD

Lectures:
T/Th 11:00-12:15 in room PSB 2725.

Labs:
T 12:30-2:20 in room PSB 2725.

Website:
Lecture notes and slides will be posted. More details soon....
Textbook:

Other recommended textbooks, if you are intent on becoming an invertebrate paleontologist, or if you’re just really interested in the subject (note there will be no assigned readings from these books!):


Evaluation:
Your grade will be based on the following:

- Lab grade* = 30%
- Homework assignments & in-class quizzes = 15%
- Term paper = 25%
- Final exam = 30%

*Breakdown of lab grade (also see Lab syllabus)
- Notebooks = 35% → 10.5% of overall grade
- Lab Reports = 35% → 10.5% of overall grade
- Lab practical = 30% → 9% of overall grade

Policies:
Late assignments: Assignments will be accepted up to 5 days late, with a penalty of -10% of grade for every day late (weekend days included); NOTE THAT assignments will NOT be accepted after 5 days past their due date.

Late assignments will be accepted without penalty for medical or family emergency reasons (please bring a doctor’s note for the former). If you will be away the day the assignment is due, you can arrange to turn it in early.

Attendance: I expect you to attend every lecture and lab. Labs cannot be made up; missing lab will directly affect your grade. If you have to miss lecture because you’re sick or have personal problems, please let me know ahead of time – even just a quick email a few minutes before class starts is fine. Note that you will not be graded on your attendance at lecture, but skipping lecture may mean missing an in-class pop quiz.
LECTURE, LAB, & EXAM SCHEDULE

WEEK 1
Th  Sept. 25  NO CLASS (Prof in China)

WEEK 2
Tu  Sept 30  Introduction to Invertebrates
Tu  Sept 30  LAB 1: Field trip to MSI touch tanks
Th  Oct 2  Cladistics and Taphonomy
Reading: Chapters 1-3

WEEK 3
Tu  Oct 7  Porifera
Tu  Oct 7  LAB 2: Porifera
Th  Oct 9  Cambrian explosion
Reading: Chapter 4, 12

WEEK 4
Tu  Oct 14  Cnidaria
Tu  Oct 14  LAB 3: Cnidaria
Th  Oct 16  Reefs through time
Reading: Chapter 5

WEEK 5
Tu  Oct 21  Molluscs I
Tu  Oct 21  Molluscs II & Functional Morphology*
(note the lecture-lab switch—Prof on Geo 18 field trip  Oct 23)
Th  Oct 23  LAB 4: Annelida & Mollusca
Reading: Chapter 8

WEEK 6
Tu  Oct 28  Molluscs III
Tu  Oct 28  LAB 5: Mollusca continued
Tu  Oct 28  TERM PAPER TOPIC DUE
Th  Oct 30  Molluscs IV
Reading: Chapter 8 continued
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<tr>
<th>WEEK 7</th>
<th>Tu</th>
<th>Nov 4</th>
<th>Brachiopods</th>
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<td><strong>Election day! Don’t forget to vote!!</strong></td>
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<td>Tu</td>
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<td>LAB 6: Brachiopoda &amp; Bryozoa</td>
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<td>Th</td>
<td>Nov 6</td>
<td>Bryozoa</td>
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<th>WEEK 8</th>
<th>Tu</th>
<th>Nov 11</th>
<th>NO CLASS: VETERAN’S DAY</th>
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<td>Tu</td>
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<td>Th</td>
<td>Nov 13</td>
<td>Arthropods I</td>
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<td><em>Reading: Chapter 11</em></td>
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<th>WEEK 9</th>
<th>Tu</th>
<th>Nov 18</th>
<th>Arthropods II</th>
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<td>Tu</td>
<td>Nov 18</td>
<td>LAB 7: Arthropods</td>
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<td>Nov 20</td>
<td>Echinoderms I</td>
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<th>WEEK 10</th>
<th>Tu</th>
<th>Nov 25</th>
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<td>Tu</td>
<td>Nov 25</td>
<td>LAB 8: Deuterostomes</td>
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<td>Nov 26</td>
<td><strong>FINAL DRAFT OF TERM PAPER DUE</strong></td>
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<td>Nov 27</td>
<td>NO CLASS: THANKSGIVING HOLIDAY</td>
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<th>WEEK 11</th>
<th>Tu</th>
<th>Dec 2</th>
<th>Echinoderms III and Hemichordates</th>
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<td>Tu</td>
<td>Dec 2</td>
<td>LAB 9: LAB PRACTICAL</td>
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<td>Th</td>
<td>Dec 4</td>
<td>Chengjiang Deuterostomes</td>
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<th>Dec 11</th>
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<td>Sat</td>
<td>Dec 13</td>
<td>TERM PAPER DUE—FINAL VERSION!</td>
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