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*
WEEK 7
Tu Nov 4      Brachiopods
**Election day! Don’t forget to vote!!**
Tu Nov 4      LAB 6: Brachiopoda & Bryozoa
Th Nov 6      Bryozoa
Reading: Chapter 6-7

WEEK 8
Tu Nov 11     NO CLASS: VETERAN’S DAY
Tu Nov 11     NO LAB: VETERAN’s DAY
Th Nov 13     Arthropods I
Reading: Chapter 11

WEEK 9
Tu Nov 18     Arthropods II
Tu Nov 18     LAB 7: Arthropods
Th Nov 20     Echinoderms I
Reading: Chapter 9

WEEK 10
Tu Nov 25     Echinodermata II
Tu Nov 25     LAB 8: Deuterostomes
W Nov 26      FINAL DRAFT OF TERM PAPER DUE
Th Nov 27     NO CLASS: THANKSGIVING HOLIDAY
Reading: Chapter 9

WEEK 11
Tu Dec 2      Echinoderms III and Hemichordates
Tu Dec 2      LAB 9: LAB PRACTICAL
Th Dec 4      Chengjiang Deuterostomes
Reading: Chapter 10

WEEK 12
Th Dec 11     FINAL EXAM (12-3PM)
Sat Dec 13     TERM PAPER DUE—FINAL VERSION!