# Earth 143: Early Life and its Environmental Context

Professor Susannah M. Porter

## Lecture and Exam Schedule

### WEEK 1

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Reading and Reference</th>
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<tbody>
<tr>
<td>Tues (March 29)</td>
<td>Lecture 1: History of Precambrian Paleontology</td>
<td><em>Chapters 1-2 in Schopf (1999); Ch. 1 in Knoll (2003)</em></td>
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<tr>
<td>Section (March 29)</td>
<td>How to read a scientific paper</td>
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<td>Thurs (March 31)</td>
<td>Lecture 2: Hadean and Archean Earth I</td>
<td><em>Valley (2005)</em></td>
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*Paper of the week #1: Maher and Stevenson (1988) due April 5th*

### WEEK 2

<table>
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<tr>
<th>Date</th>
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<tbody>
<tr>
<td>Tues (April 5)</td>
<td>Lecture 3: Hadean and Archean Earth II</td>
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<tr>
<td>Section (April 5)</td>
<td>Phylogenetic Systematics</td>
<td><em>(Due April 12th)</em></td>
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<tr>
<td>Thurs (April 7)</td>
<td>Lecture 4: Origin of Life</td>
<td><em>Hazen (2005); Ch. 5 in Knoll (2003)</em></td>
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*Paper of the Week #2: TBD due April 12th*

### WEEK 3

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<tr>
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<tr>
<td>Tues (April 12)</td>
<td>Lecture 5: The Tree of Life</td>
<td><em>Ch. 2 in Knoll (2003)</em></td>
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<tr>
<td>Section (April 12)</td>
<td>Origin of Life Discussion</td>
<td><em>(Due April 17th)</em></td>
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<tr>
<td>Thurs (April 14)</td>
<td>Lecture 6: Prokaryotic Diversity I</td>
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*Paper of the Week #3: TBD due April 19th*
WEEK 4

Tues (April 19)  Lecture 7: Prokaryotic Diversity II
Refer to Ch. 7 in Knoll (2003)

Section (April 19)  Microbial Diversity Lab (due April 26)

Thurs (April 21)  Lecture 8: Types of Fossils

Paper of the Week #4: TBD due April 26th

WEEK 5

Tues (April 26)  Lecture 9: Earliest Life I
Ch. 3 in Knoll (2003)

Section (April 26)  Lecture 10: Earliest Life II
Ch. 4 in Knoll (2003)

Thurs (April 28)  MIDTERM EXAM

No Paper of the Week. Review for the Midterm Exam instead!

WEEK 6

Tues (May 3)  Lecture 11: The Great Oxidation Event I
Ch. 6 in Knoll (2003)

Section (May 3)  Precambrian Rocks and Fossils (due May 10th)

Thurs (May 5)  Lecture 12: Great Oxidation Event II and Intro to Eukaryotes
Ch. 8 in Knoll (2003)

Paper of the Week #5: TBD due May 10th

WEEK 7

Tues (May 10)  Lecture 13: Origin and Evolution of Eukaryotes
Ch. 8 in Knoll (2003)

Section (May 10)  Eukaryotic Diversity (due May 17th)

Thurs (May 12)  Lecture 14: Early Eukaryote Fossil Record
Ch. 9 in Knoll (2003)

Paper of the Week #6: TBD due May 17th
WEEK 8

Tues (May 17) Lecture 15: Proterozoic Environmental Change I: Strange Oceans and Global Ice  
*Ch. 12 in Knoll (2003)*

Lab (May 17) Eukaryotic Fossils Lab (due May 24th)

Thurs (May 19) Lecture 16: Proterozoic Environmental Change II: Snowball Earth cont. & Oxygenation of Neoproterozoic Oceans

*Paper of the Week #7: TBD due May 24th*

WEEK 9

Tues (May 24) Lecture 17: Animals Take the Stage  
*Ch. 10, 11, and 13 in Knoll (2003);*

Section (May 24) Earliest Animal Fossils Lab (due May 31st)

Thurs (May 26) TBD

*Paper of the Week #8: TBD due May 31st*

WEEK 10 THE MUSEUM OF PRECAMBRIAN LIFE

Tues (May 31) Museum of Precambrian Life: Exhibits I

Section (May 31) Museum of Precambrian Life: Exhibits II

Thurs (June 2) Museum of Precambrian Life: Exhibits III

*No Paper of the Week*

FINAL EXAM: Wednesday June 8th, 12-3pm, Room PSB-S 2725 (same room as lecture).