# REVISED Fall 2009 Laboratory Section Syllabus
## Evolution of the Earth (EART-110A)

### Labs meet in EMS D226

<table>
<thead>
<tr>
<th>Days</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesdays</td>
<td>6 - 9 pm</td>
</tr>
<tr>
<td>Thursdays</td>
<td>6 - 9 pm</td>
</tr>
<tr>
<td>Fridays</td>
<td>9 am - 12 pm</td>
</tr>
</tbody>
</table>

### TA Office Hours (or by appointment)

<table>
<thead>
<tr>
<th>Days</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mondays</td>
<td>4 - 6 pm</td>
<td>EMS D236</td>
</tr>
<tr>
<td>Wednesdays</td>
<td>12 - 2 pm</td>
<td>EMS D236</td>
</tr>
</tbody>
</table>

### Tutoring Office Hours

<table>
<thead>
<tr>
<th>Days</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesdays</td>
<td>2 - 3:30 pm</td>
<td>EMS D236</td>
</tr>
<tr>
<td>Thursdays</td>
<td>4 - 5:30 pm</td>
<td>EMS D250</td>
</tr>
</tbody>
</table>

### Sora Kim’s Mailbox – EMS Bld, Room A232
(A232 is locked from 12 to 1pm and after 5pm)

### Week 6

- **NO LAB**
  - Oct 28, 29, 30

### Week 7

- **NO LAB**
  - Nov 11, 12, 13

### Week 8

- **NO LAB**
  - Nov 4, 5, 6

### Week 9

- **NO LAB**
  - Nov 18, 19, 20

### Week 10

- **NO LAB**
  - Nov 25, 26, 27

### Week 11

- **NO LAB**
  - Dec 2, 3, 4

### Class Midterm 10/29; NO LAB

### Isostasy Lab

- Introduce Snowball Earth Lab (Part I)
- Assign Reading
- Discuss Presentation Topics
- Select Presentation Groups

### DUE: *Fri, Nov 13th at 2pm in Sora Kim’s mailbox*

- (1) Isostasy Lab
- (2) Snowball Earth Part (I) Article Review

### Plate Tectonics Lab

- DUE: List of references from each group
- Snowball Earth Lab (Part II)
  - Sign-up for 30 minute TA meeting (all group members **must** attend)

### DUE: *Mon, Nov 30th at 2pm in Sora Kim’s mailbox* (**10 pts extra credit if you turn it in by Wed, Nov 25th at 2pm!!*)

- (1) Plate Tectonics Lab

Groups must also attend their TA meeting to review presentation outline and PowerPoint slides

### Sora & Priya

### Priya

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*See back for details on Snowball Earth Lab and Group Presentations*
Snowball Earth Part (I)

Required Reading:

A PDF of this article is available for download from the class website: [http://es.ucsc.edu/~pkoch/EART_110A/](http://es.ucsc.edu/~pkoch/EART_110A/)

A one page review of this article is due Fri Nov. 13 at 2pm in Sora Kim’s mailbox.

Snowball Earth Part (II)

Group Presentation Topics:
- **Arguments Supporting Snowball Earth**
  1. Glacial to Greenhouse
  2. Banded Iron Formation Deposits
  3. Evidence for Life Response
  4. Global Synchronicity

- **Arguments Refuting Snowball Earth**: students who select this topic may find some evidence by researching topics 3 & 4 above....
  5. Evidence Against Snowball Earth

<table>
<thead>
<tr>
<th>Expectations for Presentation</th>
<th>Things to consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>-PowerPoint format</td>
<td>-Is the font size large enough (clearly visible from back of room)?</td>
</tr>
<tr>
<td>-Include background/context slides</td>
<td>-Are all figures clearly reproduced (e.g., axis labels, title, etc. visible from back of room)?</td>
</tr>
<tr>
<td>-Present sound scientific evidence</td>
<td>-Are all figures referenced (e.g., citations)</td>
</tr>
<tr>
<td>-Include conclusion/summary slide(s)</td>
<td>-Is the talk well organized; does the order of slides make sense?</td>
</tr>
<tr>
<td>-Each group member participates equally (preparation &amp; presentation)</td>
<td>-Are your slides concise? (too many words = cluttered!)</td>
</tr>
<tr>
<td>-Presentation meets 15 minute time limit</td>
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<tr>
<td>-All members prepared for audience questions</td>
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Snowball Earth Lab (200 pts total)
- **35 pts** for article review
- **15 pts** for scientific references
- **50 pts** for meeting with TA
  (demonstrate group preparation & individual contribution)
- **100 pts** for group presentation

Extra Credit (max 9 pts)
- 3 pts for each HIGH QUALITY scientific question you ask during the QA periods