INVERTEBRATE PALEONTOLOGY
Geol. 3420-001 CRN 27688  Geol. 5315-04 CRN 25168

Lecture: T/TR 12:00 – 12:50 pm; Geological Sciences, Rm. 201
Lab: T 1:00 – 2:50pm Geological Sciences, Rm 404

Instructor: Dr. Giles    Office: Geological Sciences, Rm. 201A
Phone: 747-7075  email: kagiles@utep.edu
Office Hours: Mon-Wed. 9:00-11:00am; or by appointment
TA: Evey Gannaway    email: cegannaway@miners.utep.edu

Text: *Not Required*
ISBN 0-07-366170-8  Readings are from this book which will be available in the
lecture room.


Assignments and Grading
Grades will be based on scores from the following:

Weekly Lab (13 @ 20 pts. each)  260 points
Weekly Lab Quiz (10 @ 10 pts. each)  100 points
Lab Exam I (3/4)  100 points
Lab Exam II (4/15)  100 points
Lab Exam III (5/6)  100 points
Field Trip Reports (2 @ 20 pts. each)  40 points

Total:  700 points

*Labs must be turned in during the lab period the week following the scheduled lab as listed in the
syllabus.  *No labs accepted late!*

*Make up quizzes and exams for excused absences must be completed within a week of the
scheduled quiz or exam date.

Field Trips
Required Trips
All students are required to attend the 2 scheduled one-day fieldtrips and must write a fieldtrip
report on those two field trips.

February 23 *Paleozoic Fauna Fieldtrip –Scenic Drive, Franklin Mountains*
Required fieldtrip and report

March 30 *Paleozoic (Lake Valley) & Mesozoic (Cookes Range) Faunas Fieldtrip*
Required fieldtrip and report

Extra credit
Written Report - 20 points
Topic to be chosen in consultation with Dr. Giles.
Report due in class May 6.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings</th>
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<tbody>
<tr>
<td>1/17</td>
<td>Introduction and overview of class; Fossil occurrence and review depositional environments</td>
<td><strong>Readings:</strong> Ch. 1, p.4-7; Ch. 8 119-129.</td>
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<tr>
<td>1/19</td>
<td>Fossilization, Preservation, Taphonomy</td>
<td><strong>Readings:</strong> Ch. 1, p. 8-18.</td>
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<td><strong>Lab 1:</strong> Fossil preservation</td>
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<td>1/24</td>
<td>Invertebrate Taxonomy, Cladism</td>
<td><strong>Readings:</strong> Ch. 4, p. 47-57.</td>
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<td>1/26</td>
<td>Kingdom Protista (Protozoa)</td>
<td><strong>Readings:</strong> Ch. 11, p. 188-206.</td>
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<td><strong>Lab 2:</strong> Protista</td>
<td><strong>Quiz 1:</strong> Fossil preservation; Fossil preservation lab due</td>
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<td>1/31</td>
<td>Protozoan to Metazoan Evolution; Ediacaran Fauna</td>
<td><strong>Readings:</strong> Handouts</td>
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<td>2/2</td>
<td>Acoelomates - Porifera</td>
<td><strong>Readings:</strong> Ch. 12, p. 215-222.</td>
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<td><strong>Lab 3:</strong> Porifera &amp; Ediacaran fauna</td>
<td><strong>Quiz 2:</strong> Protista; Protista lab due</td>
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<td>2/7</td>
<td>Acoelomates – Cnidaria; Coral &amp; sponge reefs through time</td>
<td><strong>Readings:</strong> Ch. 12, p. 222-229.</td>
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<td>2/9</td>
<td>Acoelomates – Cnidaria</td>
<td><strong>Readings:</strong> Ch. 12, p. 222-229</td>
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<td><strong>Lab 4:</strong> Cnidaria</td>
<td><strong>Quiz 3:</strong> Porifera; Porifera lab due</td>
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<td>2/21</td>
<td>Lab Review</td>
<td><strong>Quiz 5:</strong> Bryozoa</td>
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<td><strong>Paleozoic Fieldtrip I Summary Due</strong></td>
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<td>2/23</td>
<td>*Lab Exam I: Fossil preservation, Protista through Bryozoa</td>
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<td>2/28</td>
<td>Lab 6 Cont.: Brachiopoda</td>
<td><strong>Readings:</strong> Ch. 13, p. 230-244.</td>
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<td>3/2</td>
<td>Mollusca-Introduction, Aplacophora,Monoplacophora, Polyplacophora, Rostroconchia, Scaphopoda, Bivalvia, Gastropoda</td>
<td><strong>Readings:</strong> Ch. 15, p. 280-306</td>
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<td><strong>Lab 7:</strong> Mollusca 1 – Bivalvia &amp; Gastropoda</td>
<td><strong>Quiz 6:</strong> Brachiopoda</td>
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</table>
3/7  Mollusca-Cephalopoda
   **Readings:** Ch. 15, p. 307-317

3/9  Mollusca-Bivalvia, Gastropoda, Cephalopoda
   **Readings:** Ch. 15, p. 307-317
   **Lab 8:** Mollusca 2 – Cephalopoda; *Brachiopoda lab due*

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3/14  **Spring Break - no class**
3/16  **Spring Break - no class**

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3/21  Annelida and Arthropoda
   **Readings:** Ch. 14, p. 252-255, 265-279

3/23  Arthropoda-Trilobites
   **Readings:** Ch. 14, p. 255-265
   **Lab 9:** Arthropoda
   **Quiz 7:** *Bivalvia, Gastropoda, Cephalopoda; Mollusca labs due*

3/25  *Fieldtrip Paleozoic (Lake Valley) and Mesozoic (Cookes Range) faunas*

3/28  Arthropoda-Trilobites
   **Readings:** Ch. 14, p. 255-265
   **Lab 9:** Arthropoda
   **Quiz 7:** *Bivalvia, Gastropoda, Cephalopoda; Mollusca labs due*

3/30  Echinodermata
   **Readings:** Ch. 16, p. 318-341

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4/4  **No class:** AAPG in Houston; Use time to study for Lab exam
4/6  **No class:** AAPG in Houston; Use time to study for Lab exam

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4/11  Echinodermata
   **Readings:** Ch. 16, p. 318-341
   **Lab 10:** Echinodermata
   **Quiz 8:** Arthropoda; Arthropoda lab due

4/13  *Lab Exam II: Brachiopoda through Arthropoda*
4/18 Graptolites and Conodonts
   **Readings:** Ch. 17, p. 346-348, 353-355
   **Lab 11:** Graptolites and Conodonts
   **Quiz 9:** Echinoderm; Echinoderm Lab due

4/20 Trace Fossils
   **Readings:** Ch. 18, p. 418-433
   **Lab 12:** Trace Fossils and Paleoecologic setting
   **Quiz 10:** Echinodermata; Graptolite & Conodont lab due

4/25 Evolution and Speciation
   **Readings:** Chapt. 3, p. 39-45.

4/27 Extinction
   **Readings:** Ch. 6, p. 81-95. Ch. 10, p. 168-185.
   **Lab 13:** Biostratigraphy
   **Trace Fossil lab due**

5/2 Mass Extinctions
   **Readings:** Biostratigraphy lab due

5/4 *Lab Exam III: Echinodermata through Trace Fossils