GG420 - Beaches, Reefs, and Climate Change: Coastal Geology
POST 708 - T, Th 1:30 ~ 2:45 pm
Dr. Chip Fletcher, POST 802a, 956-2582, fletcher@soest.hawaii.edu
Office hrs: MWF 2-3pm set up a meeting by email or just walk in and try any time

<table>
<thead>
<tr>
<th>Week</th>
<th>Weekly Topic</th>
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<tbody>
<tr>
<td>Jan 12</td>
<td>What do we study in this course? Ice Ages and Interglacials</td>
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<tr>
<td>Jan 19</td>
<td>Last interglacial</td>
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<td>Jan 24</td>
<td><strong>Kaena Point Field Trip</strong></td>
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<td>Jan 26</td>
<td>Modern climate change</td>
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<td>Feb 2</td>
<td>Recent sea level change</td>
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<td>Feb 9</td>
<td>Hawaii climate issues</td>
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<td>Feb 16</td>
<td>Reefs</td>
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<td>Feb 21</td>
<td><strong>Goat Island Field Trip</strong></td>
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<td>Feb 23</td>
<td>Reefs</td>
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<td>Mar 1</td>
<td>Dating Quaternary materials</td>
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<td><strong>Mar 8</strong></td>
<td><strong>Mid-Term Exam</strong></td>
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<td>Mar 10</td>
<td>Group Presentation on Goat Island 2/18/16</td>
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<td>Mar 13</td>
<td><strong>Kailua Bay Field Trip</strong></td>
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<td>Mar 15</td>
<td>Coastal Hazards</td>
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<td>Mar 22</td>
<td>Spring Break</td>
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<td>Mar 29</td>
<td>Coastal Hazards</td>
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<td>Apr 5</td>
<td>Beaches</td>
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<td>Apr 12</td>
<td>Paper presentations</td>
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<td>Apr 19</td>
<td>Paper presentations</td>
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<td>Apr 26</td>
<td>Paper presentation</td>
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<td><strong>Mar 15</strong></td>
<td><strong>Group Presentation on Kailua Bay 3/10/16</strong></td>
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<td><strong>Final Exam May 3</strong></td>
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This course requires physically demanding field trips, if you are not comfortable in the ocean or hiking, this may not be the right course for you.

**Field Trips:** Kaena Pt., Goat Island, Kailua Bay: you are asked to submit field trip reports to me the first day of class after each field trip.


**Grading:** 2 exams 40% each, 20% field trip notes + class participation + paper presentations

Your grade is also dependent on attendance, enthusiasm, and class participation.

**Learning Objective:** To interpret processes operating in coastal geologic systems in order to effectively manage coastal resources in a time of rising sea level and growing human population.

The Department of Geology and Geophysics has established the following undergraduate student learning objectives.

1. Students can explain the relevance of geology and geophysics to human needs, including those appropriate to Hawaii, and be able to discuss issues related to geology and its impact on society and planet Earth.
2. Students can apply technical knowledge of relevant computer applications, laboratory methods, and field methods to solve real-world problems in geology and geophysics.
3. Students use the scientific method to define, critically analyze, and solve a problem in earth science.
4. Students can reconstruct, clearly and ethically, geological knowledge in both oral presentations and written reports.
5. Students can evaluate, interpret, and summarize the basic principles of geology and geophysics, including the fundamental tenets of the sub-disciplines, and their context in relationship to other core sciences, to explain complex phenomena in geology and geophysics.


