**Review Questions: “Climate Change Overview” chapter by Bierman and Montgomery, 2015**

**For the reading, visit the ES202 class web site at the following URL:**

<https://people.wou.edu/~taylors/g202/Climate_Change_overview.pdf>

1. Explain how climate differs from weather.
2. Provide two examples of how geologists create records of ancient storms.
3. Give two examples of how ocean circulation affects continental climate and explain how each works.
4. Predict and explain the effect that tectonic uplift of a mountain range will have on the distribution of precipitation across and downwind of mountains (e.g. like the Cascades in Oregon compared to eastern Oregon terrain). Draw a sketch map showing the climate relations.
5. Give an example of how lake sediments are used to document climate change over time.
6. Define “ice rafted debris” and explain its origin.
7. What is the relationship in ice cores between the concentration of carbon dioxide and paleotemperature?
8. Define loess and explain where you are likely to find it.
9. Explain how volcanic eruptions can influence climate. Draw a sketch to illustrate your answer.
10. What are the three primary Milankovitch cycles and how are they thought to control climate change over time? Draw a sketch showing the three mechanisms.
11. Explain how glacial-interglacial cycles affect sea level. Draw a sketch showing the relationships.
12. Define “eustatic sea level” and explain how and why it changes over time.
13. What is “El Nino” and what are its effects on continental processes. Provide examples.