Overview
Geology 151 is a 1-credit course on the Geology of Mount St. Helens. We will meet once on campus and once for a field trip to Mount St. Helens. This course has no prerequisites.

Goal
Upon completing this course, you should be able to demonstrate your understanding of the events that lead up to the explosive eruption of 1980 and the dome-building eruptions of 2004-2008, and some of the consequences (past and future) of volcanic eruptions in the Pacific Northwest. You will also improve your ability to interpret the Earth by making observations of geologic features at Mount St. Helens National Volcanic Monument.

Requirements/Grading
To pass this course you must satisfactorily complete these tasks:

1. Attend and engage in classroom and field trip activities
2. Make an informal presentation during the trip (topic selection to be made on May 8th)
3. Completion of question set/trip summary

Please note: In order to meet the contact hours to receive a 1 credit hour, students must attend both the classroom session and field-trip session of the class. Missing either one will result in a failing grade.

A 2.0 will be assigned for those who complete task (1). A 3.0 will be assigned for those who complete (1) and (2) or (3). A 4.0 will be assigned for those who complete all tasks successfully.
**Reading Materials**
These handouts will be distributed in class. Please read them in preparation for our trip.

“Lavas, Deposits, and Geologic History of Mount St. Helens”

“Mount St. Helens – From the 1980 Eruption to 2000”
USGS Fact Sheet 036-00, March 2000

“Geology of Mount St. Helens Field Guide and Questions”
prepared by instructor.

**Trip Gear**
Please bring/wear these items:
- Warm clothes
- Rain gear
- Sturdy walking shoes
- 1 liter of water (or more)
- **Sack lunch and snack (or enough food to sustain you for 12+ hours)**
- Notebook and pencils
- Camera (optional)
- Reading materials (provided today)
Field Trip Presentations

On Saturday, May 22nd, each student will be asked to select a topic from the following list. (We will draw numbers for you to choose). Students will then prepare a 3-5 minute presentation on a topic they’ve been assigned. The presentations will be outside, often while we are standing by an outcrop or overlook, so are meant to be informal. Even so, please be prepared to share what you have learned on the topic.

1. Cause of volcanic activity of Mount St. Helens
2. Statovolcanoes
3. Breadcrust bombs
4. Coal Banks Bridge (history)
5. Lahar deposits (what they look like, what they are made of)
6. Debris Avalanche deposits (what they look like, what they are made of)
7. Pyroclastic Flow deposits (what they look like, what they are made of)
8. Effect of 1980 eruption on the Columbia River & the Sediment Retention Structure (history)
9. Volcanic Alert System (What it is/how it work.
10. Ash eruption and fallout from the 1980 eruption
11. Lakes affected by 1980 eruption
12. Crater Glacier -- history
13. Seismic monitoring of Mount St Helens
14. Economic impact of 1980 eruption
15. Volcanic Ash and Ash Hazards (what is it/what impact does it have)
16. Spirit Lake (history)
17. Post-eruption forest recovery
18. Post-eruption animal recovery
19. Pumice and the Pumice Plain at Mount St. Helen’s
20. Other potentially active volcanoes in Washington

You can use school or local libraries or the World Wide Web. Here are some websites you might find useful:

http://pubs.usgs.gov/publications/msh/
http://www.geophys.washington.edu/SEIS/PNSN/HELENS/
http://volcanoworld.org/
http://volcanoworld.org/vwdocs/site_index.html

or do a Google Search
<table>
<thead>
<tr>
<th>Time</th>
<th>Description</th>
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<tbody>
<tr>
<td>7:00</td>
<td><strong>Please meet in the Upper part of the South Lot in front of Building 29. Depart Highline Community College</strong></td>
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<tr>
<td>9:00</td>
<td>Silver Lake Visitor Center</td>
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<tr>
<td>10:30</td>
<td>Coal Banks Bridge</td>
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<td>11:30</td>
<td>Sediment Rentention Structure (optional)</td>
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<td>12:20</td>
<td>Hoffstadt viewpoint (lunch stop)</td>
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<td>2:00</td>
<td>Coldwater Viewpoint</td>
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<td>2:20</td>
<td>Hummocks Trail</td>
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<tr>
<td>4:00</td>
<td>Johnston Ridge</td>
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<tr>
<td>6:00</td>
<td>Silver Lake (restroom stop, if open)</td>
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<tr>
<td>7:30</td>
<td>Arrive Highline Community College</td>
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