

ESS 202: Earthquakes

Spring Quarter, 2009

Final Project

Papers: Each group (4-5 students/group) will write a paper that is about 10 pages long (12 point, double spaced) including references. You can use as many additional pages for figures as you like. You should have at least three references per person. Papers are due Monday, June 8.

Good resources are the Expanded Academic Index and Georef
<http://www.lib.washington.edu/types/databases/>

Then click on Expanded Academic ASAP or Web of Science or Georef

This provides indexing and abstracting for approximately 1,500 scholarly and general interest periodicals, covering all major fields of study in the humanities, social sciences, and science and technology. This is restricted for UW, so you can get to it from campus computers – off campus, you will have to log in from the library's main site by clicking "Off-Campus Access" in the upper right corner and entering your UW username and password. Chapters from your textbook can be used. Each chapter of the textbook suggest references for further reading.

Presentations: Each group will give a 20-minute presentation to the class at the last lab (Week of June 1). Each student should speak. You should assign a member of the group to keep track of the time so no one person goes on too long. A good talk starts with a brief statement of what you want the audience to know, follows with the details and ends with a concise statement of what you want the audience to know. In the end everyone in the audience should be able to state the main points of your presentation. You may use whatever format of presentation seems appropriate for your topic. Be creative.

Time Line

Week of May11

Before your lab on the week of May 11 look through the list of topics at the end of this file and talk with others in your lab to decide which topics interest you and divide into groups of students with common interests.

Week of May18

By the time of your lab session during the week of May 18 you should turn in an outline of your whole paper and decide who is responsible for writing each part of the paper. In

addition to your outlines, each one of you should have at least 3 references that will provide the information for your part of the paper, and one sentence per reference stating the main points covered in each. These 3 should be from books or scientific papers or magazine articles, or websites with in depth information, not abstracts or newspaper articles. Additional information can come from other websites and newspapers etc.

Week of June 1

Each group will give a 20-minute presentation in Lab during the week of May 25.

Monday, June 8

Final papers are due on Monday, June 8. You can put them in my mail box (Ken Creager, JHN 070). In addition to the final group paper, send me a paragraph stating your input to the group project. There is no need to be modest here, just honest. If you feel you did most of the work let me know. If you had problems getting together, give me your perspective. If it went great, let me know that too. You may give this to me separately from the project itself. It can be emailed if you like: (kcc@ess.washington.edu).

References should include complete reference so someone could find the paper, book, or web site you read. See your notes for the small area for a complete discussion of how to include references in the text of your writing and what should go into the bibliography.

Books need: title of book, author, publisher, city of publisher, date published, and number of pages.

Journal Articles need: author of paper, title of paper, name of journal, volume number, page numbers, year.

There is a lot of information available on the web, but it can be difficult to sort out how accurate it is, and it may not be there (or might change) the next time you look. It is fine to get some of your information from the web, but you should also get information from other sources such as a books or articles in a journal. When citing a web page in your bibliography, include the complete web page address and the organization that produced the page. For example, there are some very good web pages produced by the US Geological Survey (<http://usgs.gov>)

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Notes on Grading Final Project

Your final project is different in nature from the Small Area paper, so the strict comparison between observation and interpretation will not be so clear, but it may still be worth thinking about this distinction as you write your paper and organize your presentation. We will be looking in particular at "strong" and "weak" statements and the use of figures and references to support your statements. The first paragraph of the paper should make a very clear statement of the main points of the whole paper. The first paragraph of each section of the paper should make a very clear statement of the main point of that section. Make sure you reference all figures in the text. The figures you put in your paper can be used for your presentation. Each of you should write a part of the paper. An introduction should explain how the parts of the paper fit together. An important part of the grade for the final paper is on the content of the papers. Is it packed with information (with references where appropriate), does it present a clear message, and does it flow?

Presentations will be graded in a similar way to the written reports. Are they full of information, and is the message clear? Let your creative juices flow.

In the papers, please note who wrote each section.

Suggested topics:

You do not need to use this list. Innovative suggestions for other topics are encouraged.

1. University of Washington earthquake preparedness.
2. State, County or City earthquake emergency plans.
3. How dangerous is the Alaska Way viaduct?
4. How much hazard do fuel pipelines present and what is done about the problem?
5. Earthquake damage protection in the design of the Trans-Alaska pipeline: How well did it do during the Denali earthquake?
6. Is Interstate 5 ready for the next big one? If not, what is being done about it?
7. Lessons learned by state or local government from the Nisqually Earthquake.
8. What effect did the Nisqually Earthquake have on the policies of local and/or national insurance companies such as SAFECO.
9. Earthquake preparedness at one of the area's major industries such as:
 - (a) Boeing
 - (b) Bonneville Power Administration
 - (c) Burlington-Santa Fe Railroad
10. How likely is it that an earthquake in the western US could cause the collapse of a major dam?
11. Prepare a specific earthquake preparation/retro-fitting plan for one of:
 - (a) The home of a group member's parents.
 - (b) An off-campus residence such as apartment building, sorority or fraternity.
 - (c) A business in the "U" district.
12. How has the perception of earthquake risk in the Puget Sound region evolved from 1980 to the present?
13. Earthquake risk management away from plate boundaries: Is the central Mississippi River Valley adequately prepared?
14. Role of earthquakes in the collapse of ancient civilizations such as the Maya.
15. Earthquakes in the oral traditions of native populations in the Pacific Northwest.
16. The volcano-earthquake connection: prediction of eruptions.
17. A critique of the science in a Hollywood fantasy such as the "10.5" miniseries or the movie "Earthquake".