Case Studies on Natural Disasters

Course Basics

Fall 2017
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Faculty Sponsor: Kurt Spreyer  Units: 1
Meeting Time: 3-4PM Mondays  Location: Evans Hall 35

Course Description

This Decal shall be on the effects of natural disasters on a community in a political, socioeconomic, and environmental lens. This shall be accomplished through the investigation of various natural disasters like Hurricane Katrina, Sandy, the 1906 San Francisco Earthquake, and the recent tsunami that struck Fukushima. The course shall use news articles as the main material to be examined (as well as videos) and media coverage from various outlets to be compared. The style of the course will mainly be lecture with discussions. Key learning objectives of the course will be to understand the perception various people have on certain natural disasters and to be able to identify trends and differences between those disasters.
Course Learning Objectives

1. Demonstrate a sense of the historical scale of natural disasters and an appreciation of their significance.
2. Compare and contrast the causes and impacts of major categories of natural disasters (e.g. tsunamis, hurricanes, floods, earthquakes, volcanos, and mudslides).
3. Analyze given examples of natural disasters from scientific, historical, social, political, and economic perspective.
4. Articulate key considerations in planning and decision making related to managing the impacts of natural disasters.

Evaluation Procedures

Attendance:
Attendance is mandatory in that it is graded, although, one unexcused absence is allowed. If you are absent more than once, attendance credit will reflect this. Unless absences are excused due to medical reasons (being sick), family emergencies, or assessments in another class. Students must notify me at least 24 hours before a class. Attendance is worth a total of 100 points. For every unexcused absence past the allotted one, 30 points will be deducted from your total attendance grade.

Homework:
Throughout the twelve weeks, all students must submit at least 4 reading responses worth 25 points each. These reading responses must be at least 400 words (passing the word limit is always encouraged) and must touch on topics discussed in class. The responses may be towards any of the listed weeks and their assigned readings. Successfully pulling together from content found in both the readings and lectures will ensure an awarding of full points. A reading response will be due at the end (Sunday) of Week 4, 7, 10, and 12. See Reading Response Assignment file on bCourses.

Final Project:
During Week 8 of instruction, students will be sectioned off into groups to create a theoretical natural disaster and a brief explanation of how it was formed and a comprehensive analysis of how it impacted your real community. Use creativity and plausibility, while considering disaster prevention infrastructure, in addition to mentioning what could be changed to mitigate damage in the future. The project consists of your group delivering a 10-minute presentation on a natural disaster of your choosing. You will likely use many of the ideas discussed during this semester to help you in this project. Students will be graded on the execution, explanation, and connection to ideas we have discussed in the class for a total of 150 points.
Class Procedure:

All classes will begin with a brief scientific crash course of the titular natural disaster of the week to get a better understanding of its presence. Going over the reading will follow in the form of lecture. And following that will be a discussion on how to apply the presented concepts and class themes to the case study. General class participation will be worth 50 points, but does not mandate participation in every discussion. These points can be ensured by listening to lecture and being engaged in class.

Grading:

This class is under a Pass/ No Pass grading policy. Your final grade is on a 400-point system. A minimum of 70% of points possible (or 280 points) must be accumulated to pass. While the goal of this class is not to bring unwarranted stress (if any) on top of your already rigorous courses, reasonable effort and participation is expected.

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<thead>
<tr>
<th>Requirement</th>
<th>Points</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>50</td>
</tr>
<tr>
<td>Attendance</td>
<td>100</td>
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<tr>
<td>Reading Responses</td>
<td>100</td>
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<tr>
<td>Final Project</td>
<td>150</td>
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<tr>
<td>Extra Credit (TBD)</td>
<td>up to 25</td>
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Required Texts & Other Material

There are no required texts or other materials. Any relevant information will be distributed via bCourses, if not present below. For the majority of the course, all of your assignments are listed below in their corresponding week in the form of video and news articles.

Week 1: Introduction and Overview

We will go over the scope of the course and discuss the overarching themes that we will be used to examine each natural disaster case study. scientific, historical, social, political, and economic perspective.
Week 2: Macro Look at Natural disasters
We will examine the psychological, economic, and political impact that natural disasters can have on the world and people.

Required Readings:
- https://www.youtube.com/watch?v=fb10DyRKzT8

Week 3: 1906 and 1989 San Francisco Earthquake
We will compare two earthquakes that hit San Francisco and the change in how severely the city was impacted.

Required Readings:
- https://www.youtube.com/watch?v=p4LFu91Xrw0
- http://www.newyorker.com/magazine/2015/07/20/the-really-big-one
Optional:

Week 4: 2011 Tōhoku earthquake and tsunami
We will analyze the Tōhoku earthquake that produced a massive tsunami that devastated the Fukushima nuclear power plant.

Required Readings:
- https://www.youtube.com/watch?v=7oaGUG7ik_c
- https://www.youtube.com/watch?v=poPLSgbSO6k

Week 5: 2003 European Heat Wave
We will analyze the 2003 European Heat Wave and how it showcases the silent nature of natural disasters.

Required Readings:
- https://www.youtube.com/watch?v=Qk3EiM93xZ8

Week 6: Wildfires
We will examine various wildfires that have caused severe damage in North America.

Required Readings:
Week 7: Disaster Infrastructure

We will look at various strategies developed to combat natural disasters.

Required Readings:


Week 8: Final Project Discussion

For this class period, there will be no readings. We will simply run through a few content clippings and open their interpretation to a discussion. You will be divided into the groups you will stick with for your final project (so, sit strategically). Now it is your opportunity to brainstorm ideas for a theoretical natural disaster and the dynamics of the location it strikes.

Week 9: Hurricane Katrina

We will analyze the impact of Hurricane Katrina on the state of Louisiana.

Required Readings:


Week 10: Hurricane Sandy

We will analyze the effects of Hurricane Sandy on the state of New York.

Required Readings:

- https://www.youtube.com/watch?v=b1xkgQk4ck

Week 11: Mt. Vesuvius Eruption in Italy

We will explore how the ancient city of Pompeii met its demise and their perspective on the disaster at the time of the event.

Required Readings:

- http://www.history.com/topics/ancient-history/pompeii
- http://www.eyewitnessstohistory.com/pompeii.htm

Weeks 12 & 13: Student Presentations:

These weeks we will have groups present to the class. Details on this assignment can be found above in the “Evaluation Procedures” section. Remember the purpose of this project is to show understanding of the societal impacts of natural disasters.