

**GSC 107-G and GSC 107-J, Spring 2021**  
**Natural Disasters: Hollywood vs Reality**  
GSC 107G: M/W 3:30pm – 4:45pm, Perez Arch Center 110  
GSC 107J: M/W 6:00pm – 7:15pm, Cox Science 166

**Instructor:** Adam Holt, Department of Marine Geosciences, RSMAS, [aholt@miami.edu](mailto:aholt@miami.edu)  
RSMAS Office: Grosvenor N202, Office phone: (305) 421-5345

**Office Hours (Zoom):**

Tues/Fri 11:00am – noon

Meeting ID: 991 3884 2177

Password: 958575

**Overview/learning objectives**

This course will explore the geological and geophysical causes and effects of natural hazards and disasters on Earth, and the responses of society to them. Lectures will introduce the underlying geological and geophysical principles, and, in a term paper and class exercises, students will use these principles to assess disaster films and media articles for their scientific accuracy. We will start with background lectures on Earth structure and plate tectonics, and then we will look at a variety of natural hazards and disasters including earthquakes, tsunamis, volcanoes, landslides, storms, climate change, and impacts from extraterrestrial bodies. Grades will be based on two exams that cover the scientific principles, in-class exercises, and a term paper.

**Course Material**

- Textbook (Optional): Natural Hazards and Disasters, 5<sup>th</sup> Edition, Donald Hyndman and David Hyndman, ISBN-10: 1-305-58169-5, ISBN-13: 978-1-305-58169-2
- Students should be prepared to access and work on Blackboard inside and outside the classroom.

**Grading Policy:**

The standard UM grading scale will be used, and the final grade will be based on:

Exams (2)	50%
Class Exercises	30%
Term Paper	20%

**Exams:**

Two exams will be given through the semester, on **March 15<sup>th</sup>** and on **May 5<sup>th</sup>**. PDF versions of lecture notes will be posted on Blackboard under “Course Documents”. Lectures will be the source for exam material, and we will have short review sessions before each exam. Exam questions will mainly be multiple-choice with some additional short answer questions.

**Class Exercises**

Approximately every other week, we will spend a portion of the Wednesday class conducting a short quiz and/or exercise relating to the science behind a particular natural disaster or a snippet from a disaster movie. These exercises are aimed at consolidating the material and, more generally, developing skills in scientific reasoning and inquiry. They will require and be based on pre-class reading or watching (assigned during classes earlier in the week) and will utilize Blackboard. Students should therefore come prepared to work on Blackboard during these sessions (i.e., with laptop/tablet/etc.), having completed the pre-class reading/watching.

### **Papers:**

Each student must write one term paper for the class. This term paper is a scientific evaluation of a Hollywood natural disaster movie. Format requirements and a suggested structure will be provided in class. The paper will be due no later than **April 19th**. Late papers will be marked down 2.5% per day late.

### **Honor Code and Class Policies:**

It is the responsibility of all students to read, understand, and uphold the Honor Code.

[http://www.miami.edu/sa/index.php/dean\\_of\\_students/undergraduate\\_honor\\_council/honor\\_code/](http://www.miami.edu/sa/index.php/dean_of_students/undergraduate_honor_council/honor_code/)

### **Attendance policy**

Attendance in class is required. With proper documentation and prior approval, students can make up exams missed for official university activities, medical conditions, family emergencies, religious observances, or military duty only. Missed exams must be taken during regular office hours within one week of the original exam date.

### **Schedule**

Dates	M	W	Subjects
Jan 25/27	✓	✓	Predictions and Forecasts/Earth Structure A
Feb 1/3	✓	Exercise #1	Earth Structure B/Ex #1
Feb 8/10	✓	✓	Earthquakes A/B
Feb 15/17	✓	Exercise #2	Earthquakes C/Ex #2
Feb 22/24	✓	✓	Tsunamis A/Tsunamis B
Mar 1/3	✓	Wellness Wed	Landslides/Day off
Mar 8/10	✓	✓	Volcanoes A/Volcanoes B (+ review)
Mar 15/17	Exam #1	✓	Exam/Weather A
Mar 22/24	✓	Exercise #3	Weather B/Ex #3
Mar 29/31	✓	✓	Climate A/Climate B
Apr 5/7	✓	Exercise #4	Climate C/Ex #4
Apr 12/14	✓	Wellness Wed	Streams/Flooding
Apr 19/21	Exercise #5	✓	Ex #5/Waves and Erosion
Apr 26/28	✓	✓	Hurricanes/Impacts
May 3/5	✓	Exam #2	Review/Exam

**NOTE:** Schedule is subject to revision (e.g., if a particular disaster requires more or less class time).

### **COVID safety**

All students must wear masks in the classroom at all times. Masks must be worn properly: covering both the nose and the mouth. Please also maintain a 6 ft distance from each other throughout class: when entering, sitting for lecture, and gathering to discuss questions. Please help us all stay safe by gently reminding each other to wear masks properly and maintain distance throughout all of our class interactions. Anyone not wearing a mask can and will be asked to leave the classroom. Scarves and bandanas cannot be used in lieu of masks (masks will be available on campus).

### **Any student with COVID-19 concerns should:**

- For non-urgent issues, contact Student Health at [studenthealth@miami.edu](mailto:studenthealth@miami.edu)
- For urgent assistance, contact Student Health at 305-284-9100 (including after hours)

- For emergencies, students are urged to seek emergency care or dial 911

### **Class Recordings**

Students are expressly prohibited from recording any part of this course. Meetings of this course might be recorded by the University. Any recordings will be available to students registered for this class as they are intended to supplement the classroom experience. Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Recordings may not be reproduced, shared with those not in the class, or uploaded to other online environments. If the instructor or a University of Miami office plans any other uses for the recordings, beyond this class, students identifiable in the recordings will be notified to request consent prior to such use.