
Term Information

Effective Term Autumn 2024

General Information

Course Bulletin Listing/Subject Area Earth Sciences
Fiscal Unit/Academic Org School of Earth Sciences - D0656
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 1051
Course Title Natural Disasters in Movies
Transcript Abbreviation Distaster Movies
Course Description This course provides students with scientific background on earthquakes, volcanic eruptions, tsunami, extraterrestrial impacts and climate change. In this course students will analyze disasters portrayed in popular movies, gain an appreciation of natural disasters beyond movies, understand why natural disasters happen, and explore our ability or inability to control and predict such events.
Semester Credit Hours/Units Fixed: 2

Offering Information

Length Of Course 14 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Lecture
Grade Roster Component Lecture
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites None
Exclusions None
Electronically Enforced Yes

Cross-Listings

Cross-Listings None

Subject/CIP Code

Subject/CIP Code 40.0601
Subsidy Level Baccalaureate Course
Intended Rank Freshman, Sophomore, Junior, Senior

Requirement/Elective Designation

Survey Course

Course Details

Course goals or learning objectives/outcomes

- 1) Understand basic concepts in Earth Sciences, using natural hazards in Movies as examples.
- 2) Develop an understanding of Earth processes, and an appreciation of the rates and scales at which those processes work.
- 3) Examine the details of geologic hazards (earthquakes, volcanic eruptions, landslides, tsunamis, hurricanes, climate change, and meteorite impacts).
- 4) Examine the influences of geologic hazards on humans, and how humans attempt to mitigate those influences.

Content Topic List

- earthquakes
- volcanic eruptions
- tsunamis
- hurricanes
- landslides
- bolide impacts
- climate change

Sought Concurrence

Yes

Attachments

- 1051 Disaster Movies.docx: Syllabus
(Syllabus. Owner: Griffith, William Ashley)
- Re_ concurrence request for EARTHSC 1051_ Disasters in Movies_Film.pdf: Concurrence from Theatre, Film, and M
(Concurrence. Owner: Griffith, William Ashley)
- Re_ concurrence request for EARTHSC 1051_ Disasters in Movies_Geography.pdf: Concurrence from Geography
(Concurrence. Owner: Griffith, William Ashley)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Griffith, William Ashley	01/28/2024 11:56 AM	Submitted for Approval
Approved	Griffith, William Ashley	01/28/2024 11:57 AM	Unit Approval
Approved	Vankeerbergen, Bernadette Chantal	02/08/2024 03:48 PM	College Approval
Pending Approval	Jenkins, Mary Ellen Bigler Hanlin, Deborah Kay Hilty, Michael Neff, Jennifer Vankeerbergen, Bernadette Chantal Steele, Rachel Lea	02/08/2024 03:48 PM	ASCCAO Approval

EARTH SCIENCES 1051: Natural Disasters in Movies

2 hours, Fall 2024

Disaster movies are endlessly fun to watch but notorious for getting the facts wrong. This leads to poor public understanding of 1) how science is done and 2) how the earth works. This course provides students with a general background in Earth Sciences, focused on the science of key disasters including earthquakes, volcanic eruptions, tsunamis, extraterrestrial impacts and climate change. From this course students will gain an appreciation of natural disasters beyond movies and will understand why natural disasters happen and our ability or inability to control and predict such events.

Professor:

Dr. Ann Cook (please call me Dr. Cook or Professor Cook)

317 Mendenhall Lab (Office)

Email: cook.1129@osu.edu

Office Hours: Wednesdays from 4-5 or by appointment

Course Objectives:

- 1) Understand basic concepts in Earth Sciences, using natural hazards in Movies as examples.
- 2) Develop an understanding of Earth processes, and an appreciation of the rates and scales at which those processes work.
- 3) Examine the details of geologic hazards (earthquakes, volcanic eruptions, landslides, tsunamis, hurricanes, climate change, and meteorite impacts).
- 4) Examine the influences of geologic hazards on humans, and how humans attempt to mitigate those influences.

Course Details:

This course meets Mondays from 6:00-7:50 PM in Mendenhall Lab XX. Feel free to bring dinner or snacks and eat in class. Sometimes we will have popcorn!

During class, we will watch movie clips from over 15 movies and discuss what the movies got right and wrong as related to Earth Science. Students will answer in-class questions, which will be related to topics we are learning and discussing in class as well as in the reading.

Carmen

We will use Carmen for course details and readings. For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at <https://ocio.osu.edu/help/hours>, and support for urgent issues is available 24/7.

- Self-Service and Support: <http://ocio.osu.edu/selfservice>
- Phone: 614-688-HELP (4357)
- Email: 8help@osu.edu
- TDD: 614-688-8743

Readings and selected audio:

Reading and audio selections will be posted to Carmen. These will be from online sources are from these 4 different texts:

Abbott, Patrick. *Natural Disasters* 12th Edition, McGraw-Hill.

Marshark, Steven, Rauber, Robert and Johnson, Niel. *Natural Disasters*. W.W. Norton

Jones, Lucy. *The Big Ones: How Natural Disasters Have Shaped Us (and What We Can Do About Them)*, Random House.

Wisner, Ben, Blaikie, Piers and Cannon Terry. *At Risk: Natural Hazards, People's Vulnerability and Disasters* 2nd Edition. Routledge.

Exams:

There will be a Mid Term (100 points) and a Final Exam (120 points) in this course. These will be taken in person. Questions will be focused on the material covered in class and in readings.

In Class Questions:

Every week, there will be in class questions asked on Top Hat, worth 10 points each week.

Questions will focus on the reading and on topics covered in class. Each student must complete these questions in person. The two lowest in class questions scores will be dropped, for a total of 120 points over 14 weeks.

Extra Credit:

Yes! There is already extra credit. These are the two types:

- 1) *News Brief* (worth **up to 10 extra points**, or for the first week submissions (**August 29th**) **you may receive up to 15 extra points!**) A *News Brief* is a mini presentation (3-5 minutes) presented for the class on a current natural disaster. Current is defined here as a natural disaster that has happened or has been happening since the previous class.

You can sign up for the News Brief now on Carmen Calendar (slots appear every Saturday)! **I recommend signing up ASAP before all of the slots are filled.** You don't need to know what you will do your News Brief on when you sign up. You can figure that out when it gets close to your week. There are two slots available for each week, and when they are taken, they are gone.

How to do the *News Brief*:

- a) Find an interesting natural disaster even that happened in the week prior to your *News Brief* date. Some disasters are ongoing for weeks or months, and you can pick one of these too. If someone from a previous week has already reported your *News Brief* topic in class, you should take a different angle when delivering your *Brief*, or update details of a large disaster from a previous *Brief*. For ongoing disasters (like Hurricanes or Floods) updating on the disaster is often a great topic.

There are TONS of great places to look for news brief material. Usually starting with a news article is a great place to start. If you can't think of a particular even that

interests you, go to Google News, and type in a disaster name like 'fire' and see what you find. After you find the disaster you want to talk about, check out government and educational websites for more information about your disaster and details about your event.

Please note: I do not respond to emails asking if a disaster has already been covered.

- b) Use multiple news stories and online resources to describe your disaster event and the science behind it. If we have already covered your type of disaster in class, use the vocabulary we learned to describe the event.
- c) **You must have at least two maps of your disaster area**, one that shows the location on a continent or globe scale, and one that shows a zoomed in version. Make sure your maps are labeled, or label them yourself. It is fine to use Internet sources for these maps, you don't have to make your own maps, though you can!
- d) Tell us: What kind of disaster is it? Where was it located? Is this type of disaster common to the area? Was any infrastructure damaged? Were there any lives lost? Injuries? Is there an estimated economic impact?

2) *Halloween Costume Disaster*

Worth **up to 15 extra points (5 points for participation, and + 5 or +10 points for selected best costumes)**.

Dress up as a natural disaster or a natural disaster victim for Halloween (October 29th class)! You can be a natural disaster victim. In either case, your costume must have a theme associated with your kind of disaster or what kind of disaster you perished in (just looking dead or disheveled doesn't count). Everyone wearing a costume will introduce themselves and explain their costume in class and students will vote for the best costumes. Unlike *News Brief*, you do not have to sign up on Carmen Calendar early for this extra credit.

Additional extra credit may also become available during the semester, but this is not guaranteed.

Grades:

There are ~240 possible points for this course.

120	In class questions
100	Mid term exam
120	Final

This number may change slightly, so check Carmen for updates. You can determine your grade by dividing the (#of points you have)/(#of points for the course). Any extra credit is added straight into the point amount without adjusting the total.

Grading scale: I will follow the Ohio State grading scale:

93–100:	A
90–92.9:	A-
87–89.9:	B+

83–86.9: B
80–82.9: B-
77–79.9: C+
73–76.9: C
70 –72.9: C-
67 –69.9: D+
60 –66.9: D
Below 60: E

Ohio State’s academic integrity policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University’s *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University’s *Code of Student Conduct* and this syllabus may constitute “Academic Misconduct.”

The Ohio State University’s *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: “Any activity that tends to compromise the academic integrity of the University, or subvert the educational process.” Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University’s *Code of Student Conduct* is never considered an “excuse” for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University’s *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- Ten Suggestions for Preserving Academic Integrity ([Ten Suggestions](#))
- Eight Cardinal Rules of Academic Integrity (www.northwestern.edu/uacc/8cards.htm)

Statement on Title IX

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been

sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu

Accessibility Accommodations for Students with Disabilities

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are isolating while waiting for a COVID-19 test result, please let me know immediately. Those testing positive for COVID-19 should refer to the Safe and Healthy Buckeyes site for resources. Beyond five days of the required COVID-19 isolation period, I may rely on Student Life Disability Services to establish further reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Your Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614--292--5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614--292--5766 and 24 hour emergency help is also available 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

Religious Accommodations

It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief.

Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing no later than 14 days after the course begins. The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course requirement. These alternative accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed.

General Questions

Can I make up an Exam? Or the Final?

You must have a legitimate, documented, extenuating circumstance (in hospital, serious medical illness, serious family problem, personal crisis) to take a make-up.

Please contact me as soon as you know that you will not be able to take the exam (an email is perfect, even at 2 AM) and we will work together to find a solution.

Long-term or sudden health, personal or family issue?

If you are having a serious long-term problem, I suggest contacting the OSU Student Advocacy Center (<https://advocacy.osu.edu/>) as well as talking with me about your situation as soon as possible; if it is a sudden diagnosis that changes your ability to complete the coursework a doctor's note will be required. We can work together to find a solution that does not threaten your academic status while you are working through an issue. Accommodations on due dates and exams are available.

Schedule of Topics

Aug 26 Week 1: Intro to Natural Disasters in Movies

Sept 2 No class, Labor Day

9 Week 2: Earthquake Geology and Seismology

16 Week 3: Earthquake Geology and Seismology

23 Week 4: Volcanoes & Volcano Hazards

30 Week 5: Volcanoes & Volcano Hazards

Oct 7 Week 6: Tsunamis

14 Week 7: Big Tsunami

21 Week 8: **Mid Term**

28 Week 9: Tornadoes

Nov 4 Week 10: Hurricanes

11 Week 11: Impacts

18 Week 12: Impacts & Extinctions

25 Week 13: Climate Change

Dec 2 Week 14: Climate Change

Comprehensive Final Examination on XX, from YY AM/PM.

From: [Levin, Erica](#)
To: [Westlake, E.J.](#); [Griffith, W. Ashley](#)
Cc: [Lower, Steven](#); [Cook, Ann](#); [Piper, Paige](#)
Subject: Re: concurrence request for EARTHSC 1051: Disasters in Movies
Date: Wednesday, January 17, 2024 11:34:32 AM

Dear E.J.,

The Department of Theatre, Film, and Media Arts, on behalf of the Film Studies Area, is happy to offer concurrence for this course. We would like to request that the instructor of record include a notation on their syllabus that states something to the effect of: **"This course does not contribute to the Film Studies major or minor,"** to avoid any confusion by students in the major/minor, and clarify that despite the film-related title and content of the course, it does not contribute to FILMSTD-BA or FILMSTD-MIN degree requirements.

Best wishes,
Erica Levin

she/her/hers
Associate Professor
Department of History of Art
Head of Film Studies
levin.1996@osu.edu

From: Westlake, E.J. <westlake.35@osu.edu>
Sent: Tuesday, January 16, 2024 1:27 PM
To: Griffith, W. Ashley <griffith.233@osu.edu>
Cc: Lower, Steven <lower.9@osu.edu>; Cook, Ann <cook.1129@osu.edu>; Piper, Paige <piper.92@osu.edu>; Levin, Erica <levin.1996@osu.edu>
Subject: Re: concurrence request for EARTHSC 1051: Disasters in Movies

reattaching the docs . . .

E.J. Westlake
(she/her or they/them)
Professor and Chair
Department of Theatre, Film, and Media Arts
Theatre and Film Building
1932 College Road
Columbus, OH 43210



From: Westlake, E.J. <westlake.35@osu.edu>
Sent: Tuesday, January 16, 2024 1:26 PM
To: Griffith, W. Ashley <griffith.233@osu.edu>
Cc: Lower, Steven <lower.9@osu.edu>; Cook, Ann <cook.1129@osu.edu>; Piper, Paige <piper.92@osu.edu>; Levin, Erica <levin.1996@osu.edu>
Subject: Re: concurrence request for EARTHSC 1051: Disasters in Movies

Looks great! I'm looping in our program coordinator and the head of Film Studies. I don't see any problems.

E.J. Westlake

(she/her or they/them)

Professor and Chair

Department of Theatre, Film, and Media Arts

Theatre and Film Building

1932 College Road

Columbus, OH 43210



THE OHIO STATE UNIVERSITY

From: Griffith, W. Ashley <griffith.233@osu.edu>
Sent: Tuesday, January 16, 2024 10:40 AM
To: Westlake, E.J. <westlake.35@osu.edu>
Cc: Lower, Steven <lower.9@osu.edu>; Cook, Ann <cook.1129@osu.edu>
Subject: concurrence request for EARTHSC 1051: Disasters in Movies

Dear Dr. Westlake,

The School of Earth Sciences is seeking concurrence with the Department of Theatre, Film, and Media Arts for the proposed course **EARTHSC 1051 Disasters in Movies** (syllabus attached). We are proposing this as a 2-credit course that will not be part of the GE. The theme of the course will be an examination of the science behind natural disasters depicted in popular movies. Dr. Cook has long taught a related course, EARTHSC 1151 Natural Hazards, which is currently approved as a Natural Sciences GE course. I am also attaching the syllabus for that course for reference.

Please email your responses/concurrences to me (griffith.233@osu.edu) and our chair copied to this email, lower.9@osu.edu. Responses are due by the end of business **Tuesday, January 30, 2024**. *Concurrence will be assumed if no response is received within two weeks.* Thank you very much for this help for your help.

Sincerely,
Ashley

W. Ashley Griffith, PhD
Associate Professor
Associate Director for Administration
Field Camp Director
School of Earth Sciences
The Ohio State University
275 Mendenhall Laboratory, 125 South Oval Mall, Columbus, OH 43210-1308
Office Location: ML 381
Cell: 330-285-4650
Webpage: <http://u.osu.edu/griffith.233/>

From: [Houser, Jana](#)
To: [Griffith, W. Ashley](#)
Cc: [Cook, Ann](#); [Lower, Steven](#); [Coleman, Mat](#)
Subject: Re: concurrence request for EARTHSC 1051: Disasters in Movies
Date: Saturday, January 27, 2024 10:27:22 AM

Dear Dr. Griffith,

I have received confirmation from all interested parties that the Department of Geography concurs with this request.

The course sounds very interesting! The only suggestion that we have to offer is that the faculty member teaching the course considers inviting members of the OSU community who have specific areas of expertise in one of the hazards listed to be a guest lecturer for the class period covering that topic. This is done in the spirit of collegiality, of having students gain a broader exposure to faculty who specialize in these hazards, and of ensuring scientific accuracy when explaining these events, which are often very complex.

We look forward to seeing this course on the books!

Have a wonderful weekend!

-Jana



Dr. Jana Houser
Director of Undergraduate Studies
Associate professor of meteorology.
Atmospheric sciences program.
Department of geography.
The Ohio State University
Columbus, OH

From: Griffith, W. Ashley <griffith.233@osu.edu>
Sent: Tuesday, January 16, 2024 10:42 AM
To: Houser, Jana <houser.262@osu.edu>
Cc: Cook, Ann <cook.1129@osu.edu>; Lower, Steven <lower.9@osu.edu>
Subject: concurrence request for EARTHSC 1051: Disasters in Movies

Dear Dr. Houser,

The School of Earth Sciences is seeking concurrence with the Department of Theatre, Film, and

Media Arts for the proposed course **EARTHSC 1051 Disasters in Movies** (syllabus attached). We are proposing this as a 2-credit course that will not be part of the GE. The theme of the course will be an examination of the science behind natural disasters depicted in popular movies. Dr. Cook has long taught a related course, EARTHSC 1151 Natural Hazards, which is currently approved as a Natural Sciences GE course. I am also attaching the syllabus for that course for reference.

Please email your responses/concurrences to me (griffith.233@osu.edu) and our chair copied to this email, lower.9@osu.edu. Responses are due by the end of business **Tuesday, January 30, 2024**. Concurrence will be assumed if no response is received within two weeks. Thank you very much for this help for your help.

Sincerely,
Ashley

W. Ashley Griffith, PhD
Associate Professor
Associate Director for Administration
Field Camp Director
School of Earth Sciences
The Ohio State University
275 Mendenhall Laboratory, 125 South Oval Mall, Columbus, OH 43210-1308
Office Location: ML 381
Cell: 330-285-4650
Webpage: <http://u.osu.edu/griffith.233/>