

ERTH 2012 – Planet Hollywood Winter 2022

Public perception of Earth Science is heavily influenced by non-documentary Hollywood films. Earth Science concepts and content portrayed in Hollywood films are sometimes accurate but more frequently misrepresented in the search for the next box office hit. This course will examine popular Hollywood films from the last several decades to critically evaluate the Earth Science concepts and content that they present and directly compare them to the actual science. Are there really large caverns of quartz in the Earth's mantle as the movie *The Core* shows? Is it possible to create a 30 m wide and 100 m deep fissure during an earthquake like in the movie *San Andreas*? Should we expect a tsunami to cover much of North America if a meteorite impacts the ocean as in *Deep Impact*? After screening the films students will reflect on how science is communicated to the public through the films. What was accurate? What was not accurate? Are misconceptions being developed by the film? These questions and more will be covered in this blended course that will look at Earth Science concepts and content through a series of online modules followed by bi-weekly screenings of Hollywood films that relate to the concepts and content covered in the online modules.

Learning Outcomes:

By the end of the course, each successful student will acquire the following skills and knowledge sets from the online modules and evaluation of the films:

- Each student will appreciate the role that Earth Science plays in the development of fictional content and how that fictional content can shape the views of the general public.
- Each student will demonstrate the ability to critically evaluate science based content, in film, media and news outlets for accuracy.
- Each student will demonstrate an understanding of the geologic, hydrologic and atmospheric Earth systems.
- Each student will apply scientific concepts and theories to develop scientific explanations of natural phenomena.
- Each student will demonstrate an understanding of the course concepts at local to global scales.

Course Pre-requisites:

This course is for students who are not enrolled in the Faculty of Science. This course cannot be used for credit in an Earth Sciences program.

Textbook:

Earle, S. (2019). *Physical Geology – 2nd Edition*. Victoria, B.C.: BCcampus. Retrieved from <https://opentextbc.ca/physicalgeology2ed/>

Course Delivery Information

This course will be offered in a blended format with online (asynchronous) lecture material and in person film screenings and discussion. Due to the COVID-19 pandemic and Carleton University opting for online only instruction during January 2022, all components of this course will be completed online via Brightspace. Once in person learning has been approved for winter term 2022, all components of the course **EXCEPT** the film screenings will be completed online. The film screenings and discussion are a

mandatory part of the course Additional details regarding the timing/location of film screenings will be posted on Brightspace.

“Full vaccination against COVID-19 is required for all individuals (including, but not limited to, **students**, staff, faculty, contractors, and visitors) prior to participating in any in-person activities on- or off-campus, with the rare exception of those individuals who cannot be vaccinated due to permitted exemptions (medical and other protected grounds under the Ontario Human Rights Code). Individuals are required to submit Proof of Vaccination in a form acceptable to the University. Individuals who request an exemption must complete the applicable form(s) specified by the University and submit them to the University as indicated on those forms.” <https://carleton.ca/covid19/?p=1953>
<https://carleton.ca/secretariat/wp-content/uploads/COVID-19-Mandatory-Vaccination-Policy.pdf>

Course Evaluation:

There are three main components to the course including lecture modules, film screenings/discussion and film reflections. These components are further outlined below with specific details posted on Brightspace and discussed in lecture modules.

Lecture Module Assignments	40%
Lecture Module Quizzes	12%
Film Discussion	18%
Film Reflections	30%

Grading Scale:

A+	90-100%	C	63-66%
A	85-89%	C-	60-62%
A-	80-84%	D+	57-59%
B+	77-79%	D	53-56%
B	73-76%	D-	50-52%
B-	70-72%	F	<50%
C+	67-69%		

Class Schedule

Lecture Time: Asynchronous
Lecture Location: Posted on Brightspace
Film Screenings: Wednesday 6 pm EST
TBD and posted on Brightspace
Office Hours: T 1:00-2:00 pm via Brightspace

Instructor

Geoff Pignotta
Office: N/A Winter 2022
Phone: N/A Winter 2022
Email: geoff.pignotta@carleton.ca

Lecture Modules:

Lecture modules will consist of several videos for a topic. Videos may include lecture style, field based and relevant videos from other sources. I am really trying **NOT** to have one video that consists of hours of me lecturing over PowerPoint slides for each module. Therefore, some lecture modules may have numerous shorter videos while others may have fewer longer videos; this will vary from module to module and is based on the particular topics covered in a module. Lecture modules will have associated lecture quizzes. You will not be able to access the lecture quiz for a lecture module until all of the lecture module videos have been completed. Quizzes will consist of multiple choice and/or true-false questions. These are designed to keep students on track with lecture content prior to film screenings. Lecture

assignments will consist of multiple choice, fill in the blanks, image interpretation and short answer questions that pertain to related lecture content. In some cases this could be additional scientific content to supplement lecture material or in other cases could be additional film content that investigates the communication of the scientific content being examined in the lecture module.

Film Screening and Discussion:

After each film screening there will be a required discussion session. Film screenings will be on Wednesday evenings starting at 6 pm. We will screen the film and then discuss various scientific aspects of the film and how they were communicated. Discussion will not entail topic like whether Dwayne Johnson deserved an Oscar nomination or not for the movie San Andreas. Discussion will examine links/gaps between scientific content in the course modules and the film(s). You may also be required to submit questions for discussion prior to the start of the discussion.

Film Reflections:

Once film screenings occur a reflection that examines how the film communicates Earth Science concepts will be completed. Reflections will consist of brief summaries of the relevant science used in the film. Note that these are not critiques of the quality of the filmmaking or acting in the film unless it pertains to Earth Science content or concepts. These are also not plot summaries, the reflections require you to analyze the film in greater depth. Reflections will include an examination of the Earth Science content and concepts that were effectively communicated as well as those poorly communicated. You will examine whether more accurate science could have been portrayed while still maintaining the “drama” needed in a Hollywood film experience. What impact does the portrayal of the scientific concepts have on the general public? Additional details and guidance will be provided through prompts and film reflection rubrics.

Course Behavior/Expectations:

I expect your behavior to reflect respect for all members of the course at all times. Outside of lecture modules and film screenings, you are expected to spend 5-6 hours per week on this course with lecture readings, assignments, quizzes, studying, etc.

Conflicts with Course Requirements:

Students with conflicts for **ANY** course requirement (quiz, assignment, etc.) due to illness or otherwise **MUST** be reported to the instructor **PRIOR** to the due date when possible. If this is not possible contact regarding a deferral must be made within **24 hours** of the deadline.

Note regarding COVID-19: Carleton University has suspended the need for a doctor’s note or medical certificate until further notice when requesting academic accommodation related to COVID-19. Students should complete the [self-declaration form](#) available on the Registrar’s Office website to request academic accommodation. Note that the timing for self-declaration is the same as outlined in the Conflicts with Course Requirements section above.

Student Accommodation Processes:

Pregnancy obligation:

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more

details, visit the Equity Services website: <http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf>

Religious obligation:

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: <http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf>

Academic Accommodations for Students with Disabilities:

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at <https://carleton.ca/pmc/> or 613-520-6608 or pmc@carleton.ca for a formal evaluation. Contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, contact and/or meet with your instructor directly as soon as possible to ensure accommodation arrangements are made.

Survivors of Sexual Violence:

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and its survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: <http://carleton.ca/sexual-violence-support>

Accommodation for Student Activities:

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

For more information on academic accommodation, please contact the departmental administrator or visit: <https://students.carleton.ca/course-outline/>

Plagiarism:

Plagiarism is presenting, whether intentionally or not, the ideas, expression of ideas, or work of others as one's own. Plagiarism includes reproducing or paraphrasing portions of someone else's published or unpublished material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source. Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include but are not limited to: books, articles, papers, literary compositions and phrases, performance compositions, chemical compounds, art works, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, and material on the internet. This includes copying of material from websites or other publications that is incorporated into **assignments**, reports, or other submissions for grading. Borrowing someone else's answers, unauthorized possession of tests or answers to tests, or possession of material designed in answering exam questions, are all subject to university policy regarding instructional offences.

For this course (and all other courses at Carleton), it is extremely important to understand that you cannot copy and paste material from websites or publications into the assignment answer boxes on cuLearn. This is plagiarism, and it is easy to spot during grading of assignments. When formulating an answer to an assignment question, be sure to reword the material from websites or publications into your own words, then type that into the answer boxes. Identification of plagiarised material in an assignment answer will result in an automatic zero points for that question. Repeated instances of plagiarism will result in harsher consequences that may include zero on entire an entire assignment, reduction of course final grade, withdrawal from course, letter of reprimand from the Dean of the Faculty of Science.

I encourage students to work together and have engaging discussions. **HOWEVER**, each student must submit answers to assignments/reflections in their own words, not the words used by another student that you are working with. If the answers submitted by one student for an assignment are identical to those submitted by another student, *both students will be assigned a grade of zero for the activity*.

Academic dishonesty, in whatever form, is destructive to the values of the university, and risks harming the university's reputation as place of learning and innovation. Furthermore, it is unfair and discouraging to those students who pursue their studies honestly. Additional details regarding the Carleton University Academic Integrity policy: <http://carleton.ca/secretariat/wp-content/uploads/Academic-Integrity-Policy.pdf>