

Biology 3HD3 Human Disasters Winter 2021 Course Outline

Course Details

INSTRUCTOR: Dr. Colin Seymour
Office hours TBD

email: seymouc@mcmaster.ca

TA: TBD

Lectures: Tuesday 7 – 10pm, Location To Be Determined

Course Learning Objectives

The overall objective of the course is to demonstrate that the underlying cause of most disasters is an inadequate understanding of complex systems. The inherent nature of complex systems is unpredictability, leading often to a misunderstanding of the cause of the disaster and the appropriate response. This makes the course appropriate both for science and humanities/social science students. Although there will be a biological component, the basic biological components will be covered such that students with or without a background in biology will succeed in the course. The development of critical thinking skills will be important through written and group analysis of human disasters.

This course is designed to examine in detail a number of disasters that impacted on humans, concentrating on the biological aspects of the disaster whilst providing adequate context. During the lectures, common threads may emerge that provide an analytic background for your course work. (As an example, does the adage “Those that don’t learn from history are condemned to repeat it” apply to disasters?)

Ten topics will be studied. These MAY include :

- Great sparrow massacre (China)
- Irish potato famine
- Use of DDT
- Agent Orange
- Antibiotic resistance and the anti-vax movement
- Bhopal and Dhaka factory collapse
- Grassy Narrows
- Native American Epidemics
- Great pacific Garbage Patch and the Marshall islands
- Deepwater Horizon

If any of these are unfamiliar, now is a good time to do a little research. The essential point is usually that a simplistic solution to a complex problem creates a larger problem.

Prerequisites

Successful completion of any level two (Honors) program.

Course Evaluation

Class participation (20%). There will be written activities at the end of class relating to the material covered in the lectures and videos presented in class. Grading will be based on the quality of your submissions. These assignments are completed and submitted during class time so attendance is required.

Discussion forum on A2L (10%). Links to items in the news will be posted in the discussion forum for you to comment on. Grading will be based on the quality of your contribution to each topic posted.

The mid-term assessment will be an essay, worth 30%, in which you will describe a human disaster not covered on the definitive list provided at the start of term, for which you will have to do your own research for. Details will be posted separately.

There will be a final PBL-type group project worth 40% of the marks. In it you will discuss another disaster, not covered in class and not a topic from your essays. The project will include making a short YouTube video, providing an annotated bibliography and peer evaluation. Details will be provided later.

Changes to the course outline:

At certain points in the course it may make good sense to modify the schedule outlined below. The instructor reserves the right to modify elements of the course and will notify students accordingly (in class and post any changes onto Avenue to Learn). Posted changes take precedence over this course outline.

Authenticity/Plagiarism Detection

This course may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. Students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. Avenue to Learn, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software. **All submitted work is subject to normal verification that standards of academic integrity have been upheld** (e.g., on-line search, other software, etc.). For more details about McMaster's use of Turnitin.com please go to www.mcmaster.ca/academicintegrity.

Courses with an On-line Element

This course uses on-line elements (e.g. e-mail, Avenue to Learn, LearnLink, web pages, capa, Moodle, Echo360, Microsoft Teams, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure, please discuss this with the course instructor.

Online Proctoring

This course will use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

Conduct Expectations

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the [Code of Student Rights & Responsibilities](#) (the “Code”). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online.**

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx, Echo360, Microsoft Teams or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students’ access to these platforms.

Academic Accommodation of Students with Disabilities

Students with disabilities who require academic accommodation must contact [Student Accessibility Services](#) (SAS) at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University's [Academic Accommodation of Students with Disabilities](#) policy.

Academic Accommodation for Religious, Indigenous or Spiritual Observances (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the [RISO](#) policy. Students should submit their request to their Faculty Office **normally within 10 working days** of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

Copyright and Recording

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

Extreme Circumstances

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, Avenue to Learn and/or McMaster email.