

BIOLOGY 3HD3 HUMAN DISASTERS

INSTRUCTOR: Dr. Colin Seymour
Office hours TBD

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Lectures: Tuesday 7 – 10pm, HSC 1A6.

Course 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.

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 :

1. Great sparrow massacre (China)
2. Nuclear disasters
3. Irish potato famine
4. Use of DDT
5. Agent Orange
6. Antibiotic resistance
7. Bhopal
8. Thalidomide
9. Grassy Narrows
10. Kansas Dustbowl

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.

Assessment.

There will be a PBL-type group project worth 50% of the marks. In it you will discuss a disaster not covered on the definitive list provided at the start of term. The project will include making a video, writing a summary, an annotated bibliography and peer evaluation. Details will be provided later.

The final assessment will be an essay, worth 50%, in which you will compare and contrast two disasters, one covered in class and one for which you will have to do your own research for.

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.

Prerequisites

Successful completion of any level two (Honors) program.

Requests for Relief for Missed Academic Term Work

If you are absent from the university for a minor medical reason, lasting fewer than 3 days, you may report your absence, **once per term**, without documentation, using the McMaster Student Absence Form. Absences for a longer duration or for other reasons must be reported to your Faculty/Program office, with documentation, and relief from term work may not necessarily be granted. Please note that the MSAF may not be used for term work worth more than 30%, nor can it be used for the final examination.

Academic Accommodation

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca. For further information, consult McMaster University's Policy for [Academic Accommodation of Students with Disabilities](#).

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 requiring a RISO accommodation 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.

Academic Dishonesty

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. Academic dishonesty is to knowingly act or fail to act in a way that results, or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at <http://www.mcmaster.ca/academicintegrity>

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
2. Improper collaboration in group work. While we encourage you to work with your peers in solving problems on your assignments, copying of answers is not acceptable. Your final work must be your own.

3. Copying or using unauthorized aids in tests and examinations.

Grades obtained in Biology 3HD3 will be converted according to the following scheme, which is the one in general use at McMaster University.

90 – 100%	A+	12
85 – 89%	A	11
80 – 84%	A-	10
77 – 79%	B+	9
73 – 76%	B	8
70 – 72%	B-	7
67 – 69%	C+	6
63 – 66%	C	5
60 – 62%	C-	4
57 – 59%	D+	3
53 – 56%	D	2
50 – 52%	D-	1
0 – 49%	F	0

When the final marks are obtained, ALL borderline cases will be reviewed and, where warranted, adjustments will be made in the final mark.