

IB 299: Pandemics

Instructor:

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Course Description: Pandemics (worldwide outbreaks of infectious disease) are among the most impactful events in human history. Through this 8-week online course, we will study the major historical and modern pandemics from a biological, social, and political perspective. We will compare these past events to the public health crisis caused by COVID-19 and use this knowledge to interpret events and scientific discoveries related to the current pandemic. The first half of the course will be dedicated to exploring major pandemics in human history and the second half will be dedicated to exploring modern pandemics and then focusing on the current challenges related to controlling COVID-19. Student participation in this 2-credit course will include one hour of recorded lecture per week and one hour of live discussion per week, along with assigned readings, online assignments, and one exam.

Because online learning is different in fundamental ways from in-person instruction, this course will utilize the philosophy of "self-directed" learning. Students will be offered a range of assigned readings and other materials for each week and will be able to choose which material to learn based on personal interests and preferences. This approach will enhance the weekly live discussions, since participants will bring different perspectives and information to the discussion. Similarly, the final exam will allow students to select on which knowledge they wish to be tested based upon the material they chose to learn for this course.

Course Schedule: Online, 2nd half of Fall 2020 semester (10/19/20 – 12/9/20). 2 credit hours.

Prerequisites: None.

Student learning objectives: Use critical thinking skills and quantitative reasoning to solve problems, read and critically interpret science-related news and information, and cultivate your ability to guide your own learning and explore your personal interests in science, the humanities, and art. A variety of assignments and exercises will be utilized to help develop these skills and enhance self-directed learning.

Course format: Each week students will be assigned recorded lectures, readings, and online assignments to complete. Group Zoom discussions with the course instructor will be held on Fridays and will cover the course materials for that week, plus an additional assignment related to the discussion. There will be no additional assignments the week of the final exam.

Student evaluation will be based upon:

1. Completion of weekly assignments based upon recorded lectures and assigned readings (30%).
2. Participation in weekly live Zoom discussions and completion of discussion assignments (30%).
3. A "take-home" final exam due during the last week of classes (40%).

Assigned Readings: Readings will be assigned from the science news and scientific literature and available as PDFs or web links on the course Moodle page. Students will select from a range of possible assigned readings (or occasionally podcasts or videos) for each week based upon their own interests and self-directed learning. Discussion time will be used to explore and clarify knowledge students obtained on the assigned topics.

Online Assignments: To evaluate comprehension of recorded lectures and assigned readings, students will be tasked to complete weekly online assignments via the course Moodle page. Online assignments for each week will be due prior to the start of weekly Zoom discussions.

Weekly Discussions: Regular attendance of and participation in the weekly Zoom discussion is a required component of the course. Students should complete all assignments for the week prior to the Zoom discussion. All participants are expected to be fully engaged during the discussion and turn on their camera when possible. Students will be expected to interact maturely and responsibly with their course instructor and fellow classmates. Since there are only six Zoom discussions scheduled for the course, students should plan to attend every discussion and student attendance will be noted. Discussions will be recorded and posted to the course moodle page.

Exams: A final exam will be used to evaluate knowledge attained based upon the course materials each student selected to learn. This exam will consist of written responses to several provided exam questions. Students will be able to choose among several questions and decide which they wish to address and support their responses using assigned course materials and/or additional materials obtained through independent research on a topic. Students will have one week to complete the final exam. Students are expected to complete the exam independently and exams will be vetted for plagiarism using a plagiarism checker.

Missed Exams and Discussions: Students with a legitimate excuse for missing the final exam will be offered an opportunity to complete a make-up exam. Students will need permission from instructor to make up points due to missing a discussion or other assignments.

Class Website: A simple class website has been built using the Moodle course management system. All important materials associated with the class can be found on this website, including an up-to-date syllabus and PDFs or web links to all assigned readings. There is also an online discussion forum, where students can post questions related to class materials or events and expect a quick response from the instructor or fellow students. Grades and class announcements will also be posted/accessible via the course website.

Academic Integrity: It is the expectation of the course instructor that students will conduct themselves with the utmost integrity and honesty and adhere to the guidelines of the UIUC Student Code. Students determined to be cheating on an assignment will receive a grade of “0” for the assignment and will receive a formal disciplinary letter. Completing assignments for other students also is considered cheating (by both parties) and will be penalized similarly. For reporting academic integrity infractions, this course will follow the procedures outlined in the Student Code, using the FAIR system.

Disability Accommodations:

Students with disabilities who require assistance to participate in this class are asked to discuss any requested accommodations with the course instructor as soon as possible.

Grade Range:

A+ = 99.5-100, A = 93.5-99.4, A- = 89.5-93.4

B+ = 86.5-89.4, B = 83.5-86.4, B- = 79.5-83.4

C+ = 76.5-79.4, C = 73.5-76.4, C- = 69.5-73.4

D+ = 66.5-69.4, D = 63.5-66.4, D- = 59.5-63.4

F = 59.4 or below.

Syllabus, assigned readings and assignments:

Week	Dates	Topic	Assignment
1	10/19-10/23	Lecture 1: Introduction to Pandemics and Plagues of Classical Antiquity	Complete recorded lectures, assigned readings and lecture assignment
	10/23	Zoom Discussion 1	Discussion assignment: "Discover pandemic art". Explore artwork that depicts historical pandemics and identify one piece of art that captures your imagination.
2	10/26-10/30	Lecture 2: Plagues of the Middle Ages	Complete recorded lectures, assigned readings and lecture assignment
	10/30	Zoom Discussion 2	Discussion assignment: "Societal disruption". Explore literature on a plague of the middle ages and the societal and political changes that it caused.
3	11/2-11/6	Lecture 3: Plagues of the Age of Exploration	Complete recorded lectures, assigned readings and lecture assignment
	11/6-	Zoom Discussion 3	Discussion assignment: "Disease and conquest". Explore literature on the impact of a disease transmitted by explorers to an indigenous population or society.
4	11/9-11/13	Lecture 4: Modern Pandemics	Complete recorded lectures, assigned readings and lecture assignment
	11/13	Zoom Discussion 4	Discussion assignment: "History repeats itself". Explore literature on the 1918 flu pandemic and identify commonalities with the current pandemic due to COVID-19.
5	11/16-11/20	Lecture 5: The Global Response to COVID-19	Complete recorded lectures, assigned readings and lecture assignment
	11/20	Zoom Discussion 5	Discussion assignment: "19 and me: COVID-19 risk score calculator". Estimate risk for yourself and a loved one using: https://19andme.covid19.mathematica.org/
6	11/21-11/29	THANKSGIVING BREAK	
7	11/30-12/4	Lecture 6: COVID-19, Herd Immunity, and Vaccines	Complete recorded lectures, assigned readings and lecture assignment
	12/4	Zoom Discussion 6	Discussion assignment: "Talk to an anti-vaxxer". Find a friend or loved one who is vaccine hesitant and explore their concerns about a COVID-19 vaccine.
8	12/7-12/11	Final Exam	Submit final exam by 1pm on 12/11