

FINAL EXAM DIGITAL ART PROJECT

S15 Emerging Diseases

Throughout the semester, we have used a number of different human diseases to better understand the complex nature of disease biology. By now you should be familiar enough with the major agent types (viruses, bacteria, helminths, and protozoans) and the diseases that they cause to identify patterns that are universal to infectious diseases within the human population.

Your final exam for this class will be to produce a digital art piece (i.e. a movie of some sort) that uses a specific disease example to provide a framework for understanding some of these patterns. Your movie can be a live action scripted dramedy, an animated short film, a silent B&W movie, a music video, a french art piece, interpretive dance, claymation, or... well, whatever you want it to be (but no matter what, please, for the love of all that is Biology and the sake of your classmates and professor, whatever you do, keep it PG-13ish).

You will be randomly assigned a partner, a disease from the list below, and one concept each from the two concept columns. In addition, you will be responsible for identifying one additional major concept relevant to the study of emerging diseases or epidemiology that isn't already included on the list.

For full credit, your video must provide a compelling connection among your three major concepts with a very **EXTREMELY SUPER DUPER CRYSTAL CLEAR** link to the biology and ecology of your specific disease. The key feature of this project is using what you've learned this semester to make connections that explicitly explain how behavior and environment shape the human disease experience. You may have to get creative in how you build those connections, but I trust that you will be able to make them!

Grading:

This project is worth 150 points, and is due to me **SUNDAY 10 MAY** by 8:00 PM. We will use our final exam time slot of Monday 11 May from 9-12 to screen the videos as a class. Your attendance to this session **IS MANDATORY** and will serve as a portion of your grade for the assignment. Besides - it'll be fun!

Rubric

Preliminary project proposal: 15 points (due Monday 04 May, 8:00 am in class)

Attendance at and notes from the Film premieres (Monday 11 May 2015, 9:00 am): 13 points

Final project: 125 points (due Sunday 10 May 8:00 pm)

- The basic content (general information, definitions, use of terms, disease description, and basic explanation of the major concepts being discussed) was accurate (15 points)
- Included enough information on the disease itself so that the other content was easily understandable (10 points)
- The organization of the film made the connections between concepts easy to understand (10 points)
- Each major concept was clearly linked to the specific case of the disease. (7 points each)
- The biological implications of each concept were clearly explained in the context of the disease. (7 points each)
- The links made between each concept with the other concepts and the disease/disease biology demonstrated evidence of an understanding of the major themes and patterns of the field of epidemiology or emerging diseases. (25 points)
- Creativity (15 points)
- On-time submission, video between 10-12 minutes in length (5 points)

You will be randomly assigned one item from each of the three columns. Remember: you must identify one additional concept for inclusion in your video.

Disease	Concept 1	Concept 2
Ebola	Epidemiological triangle	Human movement/travel
Influenza	Vectors and Reservoirs	Urbanization
Measles	Modes of disease transmission	Stigma
MRSA	Symptoms	Nutrition
TSS	Zoonoses and spillover	Technology and Industry
TB	DALYs	Political will
HIV	Pharmaceutical intervention	Panic
Bacterial STI	Agent life/replication cycle	Media
Leishmaniasis or Giardia	Immune system/response	Local and global economics/ Foreign aid
Hookworm or Ascaris	Vaccination (esp herd immunity)	War and conflict
Malaria	Koch's postulate	Changing ecosystems
Guinea Worm disease	Genetic adaptation or evolution	Poverty and social inequality
Lymphatic filariasis	Sporadic/endemic/epidemic/ pandemic	Disease eradication/elimination