Viruses at the Edge: Research and Presentation on Emerging/Re-emerging viruses (draft)

In the last week of class, student groups (generally groups of 2) will present short powerpoint presentations to relay information related to the emergence or re-emergence of viral infections.

The following table contains viruses that might be covered. As the semester proceeds, we will determine how many presentations we can have, and what size the groups will be.

Ebola	Chikungunya virus	HIV	Influenza virus (2009 H1N1)
Influenza virus (H5N1)	West Nile virus	SARS	Dengue
Noroviruses	Sin Nombre virus	Rift Valley virus	Machupo virus
Junin virus	Nipah virus	HTLV	Yellow fever virus
Smallpox	Canine parvovirus	Monkeypox	

Each presentation will address a set of specific questions/issues, including the following:

- What kind of virus is it? (Provide context relevant to our study of virus families-structure/genome, etc.)
- Describe the pathogenesis of the virus and its transmission/dissemination
- Discuss the factors that contributed to the emergence of this virus in the human (or relevant animal) population. Possible factors include, but are not limited to: zoonosis, microbial evolution/expanded host range with increase in disease not previously obvious, reporting, ecological/environmental factors, social/political/economic factors, genetic/biological factors
- If the emergence involves cross-species infection, is the virus sustained in the human population? Is the virus-human host interaction stable/evolving/dead-end?

Presentations should not merely address these questions in order; group members should think about how to deliver a logical and maximally informative presentation. Teams should develop clear, uncluttered visuals to enhance the oral presentation. These should be professional in tone. Consider that you are competing for a coveted internship spot at the CDC. The principle investigators and their research teams are your audience.

As each group will have 7-8 minutes, the powerpoint presentations should generally contain no more than 10 slides. All presentations should end with "Most important points/lessons learned". Practice to make sure that you can deliver your material within this time frame.

Grading criteria and process: Each group will turn in a **hard copy** of their presentation, using the notes view. This view should include the following:

- Intended text (script) for the oral presentation.
- References (Journal of Virology format) for the materials on the slide. Appropriate references include the textbook, Fields Virology 5th edition, review and primary journal articles, CDC and other government agency websites. Wikipedia is not a professionally appropriate source.

The written component of the assignment (slide content and presentation text) will be evaluated using the general writing assignment rubric on the course website.

As a study aid for the final exam, I will also try to generate PDFs of the slides for each of the presentations