Cholera: an infectious and often fatal bacterial disease of the small intestine, typically contracted from infected water supplies and causing severe vomiting and diarrhea. The disease is caused by the bacterium *Vibrio cholerae*. Worldwide it affects 3-5 million people and causes 100,000-130,000 deaths a year as of 2010. (source: Mac dictionary and Wikipedia)

The objective of this course is to understand what cholera is as well as its impact. To reach this objective we are going to write a book. There will be no exams, no final, just a book when we reach the end of our educational journey. Student performance will be assessed by the contribution made to the project. (That sounds pretty vague.)

Tentative schedule: (subject to variation as the project bumps along)


January 24 – February 4. Developing a historical context for the disease. Creating in the reader an interest in the topic. The seven pandemics of cholera
http://www.cbc.ca/health/story/2008/05/09/f-cholera-outbreaks.html


February 21 – March 11. How does a well-mannered bacterium found in the ocean become a virulent killer? http://www.textbookofbacteriology.net/cholera.html This induction of virulence leads to the following concepts: Quorum Sensing, Biofilms, and Lateral Gene Transfer. The concepts represent some really “neat” biology that few people understand or even know about. How does one communicate the need to know this information?

March 21 – April 1. How does Vibrio invade the body? Certain gut pathogens have evolved methods to get past the intestine’s immunological surveillance. PMID 18081850 and PMID 2422297 This information has significant public health implications.

April 4 – April 15. How has civilization responded to cholera?
http://www.tngenweb.org/darkside/cholera.html
April 18 – April 29. The future of cholera. The politics of cholera.

**Class decorum** (the usual disclaimers):
1) Attendance is expected
2) Class participation is very important
3) Deadlines are deadlines
4) Turn off cell phones
5) University academic integrity policies and honor code followed
6) Don’t hoard resources
7) Wireless laptops offer possibilities in class

Attention needed:
1) Need a common citation style.
2) Need a reference library
3) Should we establish a blog or similar?
4) The literature suggests groups of three are best. I like mixed gender groups and “classification” mixing (lower and upper division students).
5) Need to maintain very carefully supporting notebooks.