Ever increasingly, lawyers and policymakers are confronted with the need to evaluate scientific research about causes of good or ill health. Should the family of a person who was exposed to asbestos and later died of lung cancer sue? At what level should mercury in tuna violate regulatory standards? What measures can be employed to control the spread of an Ebola outbreak or to prevent obesity? Should a grassroots advocate encourage parents to avoid certain vaccines out of the fear that they may cause autism? Will mandatory quarantines save lives if a bioterrorist releases anthrax in a major city?

This class will provide students with a basic toolset in public health’s empirical methods. Disciplines such as epidemiology, risk assessment, and biostatistics provide ways to systematically evaluate proposed policy and search for answers in the quest for better health. To illustrate how these methods are deployed in practice, we will discuss case studies from the West African Ebola epidemic, Middle East Respiratory Syndrome (MERS) in the Middle East, and novel avian influenza in Asia and Egypt, among others.

Students who successfully complete this class will not be trained to be professional scientists but will be able to interpret health research, critically evaluate empirical claims, and know when assistance from health experts is required. Lawyers with training in epidemiology will be able to more effectively respond to emerging and persistent issues in our complex society, whether they practice in health law, complex torts, environmental regulation, law enforcement, or human rights.
I. Course Requirements

A. **Time and Place.** Monday, January 11 – Friday, January 15 from 1:00 to 4:00 pm daily in McDonough 210.

B. **Class discussions** showing rigorous thought and an informed understanding of the subject matter will be an integral part of the learning process. All students will be expected to actively participate in class discussions as well as in small group discussions.

C. **Readings.** An overview of methodologies that will be discussed during lecture will come from the required text: **Leon Gordis, Epidemiology (5th ed., 2014).** Students are expected to read the assigned readings _before_ each class session.

D. **Grading.** Students will be evaluated on participation (10%), and a final take-home exam (90%). The class participation grade is determined on the basis of quality, not merely quantity, of contributions to discussion.

II. Administrative Details

A. **Instructor Availability.** This course will be different than most offered at the law center, and its content can be challenging to master. I will be on leave overseas from December 7, 2015 until January 9, 2016, however am happy to meet with students before classes during the week of January 11 – 15, 2016. My email is

B. **Office hours.** By appointment.

III. Academic Ethics. I take academic ethics very seriously. The Law Center’s Student Disciplinary Code covers breaches of academic ethics, including cheating and plagiarism. Collaboration on take-home examinations is a form of cheating and is prohibited. If cheating is suspected, students in this class will be referred to the Law Center’s Ethics Counsel, and may face penalties including a failing grade and disciplinary proceedings including suspension or expulsion. If you have any questions about what conduct is unacceptable, do not hesitate to ask me.

The Student Disciplinary Code can be found in full here: [https://www.law.georgetown.edu/campus-services/registrar/handbook/upload/Conduct_Policies.pdf](https://www.law.georgetown.edu/campus-services/registrar/handbook/upload/Conduct_Policies.pdf)

IV. Canvas

This class will use Canvas for the distribution of course materials.

V. Assessment

The assessment for this course includes:

- 10% - participation: determined on the basis of quality – not merely quantity – of contributions to discussion.
- 90% - take-home exam.

<table>
<thead>
<tr>
<th>Sat 23 Jan, 5pm</th>
<th>Take-home exam released</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fri 9 Jan, 5pm</td>
<td>Take-home exam due</td>
</tr>
</tbody>
</table>

Procedures for obtaining and submitting the take-home exam will be discussed in class.
Schedule and Required Readings

**Topic Overview**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading:</th>
<th>Case Study:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon Jan 11</td>
<td>Introduction to Epidemiology and Measuring Disease</td>
<td>Gordis – Chapters 1 (skim), 3, 4, 6.</td>
<td>Overview of West African Ebola epidemic</td>
</tr>
<tr>
<td>Wed Jan 13</td>
<td>Analytical Epi (cont.) and Causal Inference</td>
<td>Gordis – Chapters 10 &amp; 14</td>
<td>Middle East Respiratory Syndrome (MERS)</td>
</tr>
<tr>
<td>Thu Jan 14</td>
<td>Infectious Disease Epi</td>
<td>Gordis – Chapter 2</td>
<td>Novel Influenza (H5N1 &amp; H7N9)</td>
</tr>
<tr>
<td>Fri Jan 15</td>
<td>Program Evaluation</td>
<td></td>
<td>Student-chosen topic and Q&amp;A</td>
</tr>
</tbody>
</table>

**Detailed Schedule and Readings**

**Jan. 5**  
**Introduction to Epidemiology and Measuring Disease**

Reading:
- Gordis – Chapters 1 (skim), 3, 4, 6.

Case Study:
- Overview of West African Ebola epidemic

**Jan. 6**  
**Applying Descriptive Epi and Intro to Analytical Epi**

Reading:
- Gordis – Chapters 9 & 7.

Case Study:
- Ebola’s epicenter: Sierra Leone

**Jan. 7**  
**Analytical Epi (cont.) and Causal Inference**

Reading:
- Gordis – Chapters 10 & 14

Case Study:
- Middle East Respiratory Syndrome (MERS)

**Jan. 8**  
**Infectious Disease Epi**

Reading:
- Gordis – Chapter 2

Case Study:
- Novel Influenza (H5N1 & H7N9)

**Jan. 9**  
**Target-Driven Design and Program Evaluation**

Reading:
- Gordis – Chapter 17.

Case Study:
- Student-chosen topic and Q&A