

Department of Epidemiology and Biostatistics  
College of Public Health  
University of Georgia  
Epid 7010  
Introduction to Epidemiology  
Fall 2009 Syllabus

Course Information

Instructor: Steve Valeika, DVM, PhD, Assistant Professor of Epidemiology

Office Location: Room 127 Coverdell Building

Phone: 706 542 1559

Email: [svaleika@uga.edu](mailto:svaleika@uga.edu)

Office Hours: Monday and/or Thursday depending on class vote. I'll try to answer all emails received before 5 PM the same day.

Teaching Assistant: Timber Wages

Email: [twages01@uga.edu](mailto:twages01@uga.edu)

Feel free to email Timber with any questions as she'll be able to answer a lot of them.

Course Meeting Time and Location

Building: Visual Arts

Room: Room 117

Day: Wednesday

Time: 9:00 A.M. to 11:30 A.M.

Textbooks and Other Required Reading

Essentials of Epidemiology in Public Health. Second Edition. Aschengrau and Seage. 2008  
The textbook is required. Other readings will be assigned as necessary.

Course Description

This is the introductory course in epidemiology. Epidemiology can be thought of as the set of core scientific principles that underlie medical and public health research. This course will cover measurement, study design, sources of bias and error, data analysis and other methods pertinent to public health research. Understanding the methods, scope, and limitations of epidemiologic research will help you become a savvy consumer of scientific literature relating to the practice of public health and medical research. Additionally, this course will begin to prepare you to use epidemiologic skills to solve public health problems.

Course Learning Objectives

Students will learn the following:

- The population perspective necessary for public health research.
- Methods for measuring the frequency of disease and risk factors in a population.
- Epidemiologic study designs, including clinical trials, cohort, case-control, and cross-sectional studies.

- Sources of bias and error in the design and analysis of these studies, and how to minimize such errors.
- Data analysis, including the application of statistical methods to epidemiologic data, and how to identify and control confounding.
- How to interpret diagnostic tests and population screening methods
- Reading pertinent scientific literature with a skeptical eye and being able to communicate research findings to a general audience.
- How to perform specific public health activities such as outbreak investigations.

#### Course Assignments/Requirements for Grading Purposes

Case Studies. These will consist of in class discussions of assigned articles, problem sets, and activities. The exams are cumulative. Details of the final project will be discussed later in the semester, and the syllabus will be updated at that time.

Exam 1:	25%
Exam2:	25%
Discussions etc.:	25%
Final Project:	25%

Pay attention to eLC. Readings and assignments will be posted before 5 PM of the Friday before class. You are responsible for anything posted by 5 PM on the Friday before class. Lecture slides will usually be posted before class. These notes are a guide only. Anything I cover in the lectures is fair game for exams and assignments, regardless of if it has its own powerpoint slide. In other words, please pay attention in class.

Topic- Lecture Outline				
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<u>MEETING</u>	<u>Date</u>	<u>TOPICS</u>	<u>Chapters in A&amp;S</u>	<u>Other Readings</u>
1	8/19/2009	The History and Scope of Epidemiology	Chapter 1	TBA
2	8/26/2009	History and Use; Measurement; Descriptive Epidemiology	Chaper 5; Hill Paper on Causal Criteria	TBA
3	9/2/2009	Measurement; Infectious disease epidemiology	Chapter 2, Chapter 4	TBA
4	9/9/2009	Putting it all together: Measurement, Descriptive Epidemiology, and ID Epidemiology in the context of an outbreak; Critical Evaluation of Results	Chapter 14	TBA
5	9/16/2009	<b>Exam 1</b> Classes 1-4; Measures of Association; Bias; Confounding	Chapter 3, Chapter 15. Start chapters 10,11	TBA
6	9/23/2009	Study Designs: Ecologic, Cross-Sectional, Case-Control; Bias; Confounding	Chapter 6, and 7, Continue with chapters 10,11	TBA
7	9/30/2009	Study Designs: Cohort Studies; Bias; Confounding	Chapter 8, Continue with chapters 10,11, Start chapter 12	TBA
8	10/7/2009	Study Designs: Case-Control; Bias; Confounding	Chapter 9; Continue with chapters 10,11,12, begin Chapter 13	TBA
9	10/14/2009	Wrap-up Study Designs; Confounding and Effect Measure Modification	Chapter 11, Chapter 13	TBA
10	10/21/2009	Bias and Confounding, and Random Error wrap up; EMM wrap-up	Chapter 10, 11, and 12, 13	TBA
11	10/28/2009	Screening for Disease in the Community	Chapter 16	TBA
12	11/4/2009	Exam 2: Cumulative		TBA
13	11/5/2009	Field Epidemiology and Surveillance	TBA	TBA
15	11/18/2009	Communicating Epidemiologic Findings	TBA	TBA
Holiday	11/23-11/27	Thanksgiving		TBA
16	12/2/2009	Final Presentations		TBA
Final Date	TBA	This is in case we need more time for presentations		TBA

### Grading Scale

Grading: We will work on a plus minus scale. Anything from an X0 to X3 non-inclusive gets a (-), X7 to Y0 non-inclusive get's a (+). I will not individually debate scores on subjective exam or assignment questions, unless I have made an error of some sort. Good participation in class will help boost borderline grades to the next sign or letter much more efficiently than arguing for points. There will be a discussion forum on eLC for post-exam question dissection.

### Attendance Policy

Attendance is mandatory. Being absent for a case-study or exam without a valid, pre-approved excuse will result in a 0 on that exercise. Participation and preparation are expected.

### University Honor Code and Academic Honesty Policy

All academic work must meet the standards contained in "A Culture of Honesty." All students are responsible to inform themselves about those standards before performing any academic work.

Please see <http://www.uga.edu/honesty/ahpd/procedures.html> for more details.

Epidemiology is a collaborative discipline. I encourage group discussion of course issues outside of class. Working with peers on the case studies, and obviously on the group presentation, is allowed and encouraged. Just remember that it is up to you to demonstrate a mastery of the material during those sessions, so you can't completely rely on your peers. The in class exams are closed book and discussion is not allowed. A one page, one sided formula sheet will be allowed.

### Students with Disabilities

Students with disabilities who require reasonable accommodations in order to participate in course activities or meet course requirements should contact the instructor or designate during regular office hours or by appointment.

### Disclaimer

The course syllabus is a general plan for the course; deviations announced to the class by the instructor will be necessary. This class is larger than previous years, and we meet once a week. The syllabus will change, frequently at first, as the course unfolds and evolves. Changes to the syllabus will never hurt you with regards to grades or due dates.