

Syllabus

**The Ohio State University College of Public Health
PUBHEPI 6410
Epidemiology for Health Professionals
Spring 2016**

Instructor: Judith Schwartzbaum, PhD
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REQUIRED online meeting time: Mondays 6:00-7:30

Instructor's Office Hours: Mondays and Wednesdays 3:00-4:00

Course Description: This is an introductory course in epidemiology that is designed for people who have had work experience in the health professions.

Prerequisites: Graduate standing or permission of the instructor.

Class Format: This online course will consist of one online 80 minute meeting per week, online recorded lectures, and student presentations. Students must participate in the weekly online sessions.

Course Objectives: Upon completion of this course, a student will be able to:

1. Define and summarize terms, concepts, and methods in epidemiology, including its definition, goals and components.
2. Interpret measures of disease frequency and epidemiologic study designs.
3. Identify strategies in the design and conduct of epidemiologic studies that will minimize the adverse effects of error, especially bias.
4. Conduct fundamental qualitative and quantitative analyses of basic epidemiologic studies.
5. Critically evaluate and interpret published epidemiologic study results.

Core MPH Competencies in Epidemiology:

1. Recognize the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues.
2. Describe a public health problem in terms of magnitude, person, time and place.
3. Use the basic terminology and definitions of epidemiology.
4. Identify key sources of data for epidemiologic purposes.
5. Calculate basic effect measures such as odds ratio, relative risks, and standardized mortality ratios.
6. Evaluate the strengths and limitations of epidemiologic studies reported in the literature, including an assessment of the internal validity of the design and the appropriateness of the analysis.
7. Draw appropriate inferences from epidemiologic data.
8. Communicate epidemiologic information to lay and professional audiences.
9. Discuss basic ethical and legal principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data.
10. Recognize the principles and limitations of public health screening programs.

Core MHA Competencies:

1. Use information on health status and its determinants to manage health risks and behavior in defined, diverse populations
2. Interpret and apply statistical methods for organization decision making.

Text/Readings: Gordis L. *Epidemiology. Fifth Edition.* Philadelphia: Saunders Elsevier Inc., 2014.

Problem Sets and Critiques: Due in Homework Drop Box midnight Sunday before online session.

Midterm : The midterm will be available from March 7th to March 13th, 11:59 pm.

There will be no online session March 7th so you can work on the midterm.

Final: The final will be available from April 25th to May 2nd . Due May 2nd at 11:59PM.

Grading: Participation in Online Sessions (20%), Problem Sets and Critiques (20%), Midterm (30%), Final (30%)

Weekly Meetings: This class will use Adobe Connect, a web conferencing tool for all synchronous weekly meetings. For an optimal class experience please make sure you:

- Participate in a location with reliable Internet (avoid free and public Wi-Fi spots if possible).
- Choose a location with minimal distractions in terms of excessive background noise.
- Use a USB Headset microphone for audio participation.
- Please test your computer using the Adobe Connect test located at: https://carmenconnect.osu.edu/common/help/en/support/meeting_test.htm before each meeting. Make sure your computer passes all 4 checks.

For more information visit the Carmen Connect Participant page located at:

<https://odee.osu.edu/resourcecenter/carmenconnect/quick-start-checklist>

Quizzes: Upon completion of each distance learning lecture, if they wish, students may take a short quiz on Carmen (quizzes are optional and are not graded).

Carmen: There will be a Carmen site for the course. It will contain the syllabus, links to the recorded lectures, quizzes. Find recorded lectures, optional quizzes and online presentations in the weekly Overview Sections of the Table of Contents.

Communication Guidelines: If you have a question that you think will interest others in the class post it on the Carmen Discussion Board which I will read and respond to every night. Personal questions (e.g., what topic should I select for my paper) should be emailed to Dr. Schwartzbaum (ja.schwartzbaum@gmail.com) and she will also respond to her email every night.

Class Policies:

Attendance: Students are expected to participate in the online meetings each week.

Rules for Students (1872)

1. Respect your schoolmistress. Obey her and accept her punishments.
2. Do not call your classmates names or fight with them. Love and help each other.
3. Never make noises or disturb your neighbors as they work.
4. Bring firewood into the classroom for the stove whenever the teacher tells you to.

Rules for Students (2016)

What is Netiquette? The basic rules of Netiquette are the same that you would use in any everyday interaction, with one exception: You must always remember that even though you are working in an electronic environment, you are still dealing with other people, with the same goals and concerns about their academic success.

Participation: Faculty members report that the more often students participate in their online courses, the more students learn. It is also apparent that the quality of your participation affects your overall success in the course. There are many ways to increase your class participation, but thorough and comprehensive comments based on specifics from assigned readings reinforce your learning and allow other students to comment on your work and interact with you.

Collaboration: Remember that online learning is often a joint project between different members of your online course community, including other students and the professor. Discussions are collaborative, as are group projects. To be truly collaborative, it is important to share information, reveal tips you may have discovered, and respect the ideas of others. But collaboration should be limited only to those enrolled in the course. It is not appropriate to share course information with those not enrolled in the course because the course content is intellectual property that belongs to the school or professor. Also, you do not have permission to share the work of others in the course.

Courtesy: The internet is a place where communication is often misunderstood. In addition to being respectful with your words, it is a courtesy to be generous in your assessments of what other people write. Sometimes it is hard to find the right words, and others may make mistakes. Extend the same benefit of the doubt to them that you would want for yourself. If for any reason you feel uncomfortable with what someone has written, do not confront them directly. Discuss the issue with your professor, who can then act as an intermediary between you and the other student. Flaming someone is not courteous, nor does it advance your learning. Discuss the issue with your professor, who can then act as an intermediary between you and the other student. It may seem that there are a lot of rules for participating in online courses. But just remember that there is one basic rule of thumb: Treat others the way you would want to be treated yourself. Remain calm, respectful, and enthusiastic, and you will get the most out of your course.

Office for Disability Services: Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. Please contact the Office for Disability Services at 614-292-3307 in room 150 Pomerene Hall to coordinate reasonable accommodations for students with documented disabilities.

Student Support: A recent American College Health Survey found stress, sleep problems, anxiety, depression, interpersonal concerns, death of a significant other and alcohol use among the top ten health impediments to academic performance. Students experiencing personal problems or situational crises during the semester are encouraged to contact OSU Counseling and Consultation Services (292-5766; <http://www.ccs.ohio-state.edu>) for assistance, support and advocacy. This service is free to students and is confidential.

Academic integrity: Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University, the College of Public Health, and the Committee on Academic Misconduct (COAM) expect that all students have read and understood the University's *Code of Student Conduct* and the School's *Student Handbook*, and that all students will complete all academic and scholarly assignments with fairness and honesty. The *Code of Student Conduct* and other information on academic integrity and academic misconduct can be found at the COAM web pages (<http://oaa.osu.edu/coam.html>). Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct*, the *Student Handbook*, and in the syllabi for their courses may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Please note that the use of material from the Internet without appropriate acknowledgement and complete citation is plagiarism just as it would be if the source were printed material. Further examples are found in the *Student Handbook*. Ignorance of the *Code of Student Conduct* and the *Student Handbook* is never considered an "excuse" for academic misconduct.

If I suspect a student of academic misconduct in a course, I am obligated by University Rules to report these suspicions to the University's Committee on Academic Misconduct. If COAM determines that the student has violated the University's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in the course and suspension or dismissal from the University. If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Course Outline

Week	Date	Activity
1	January 11	Online meeting: Review of Syllabus, Overview of Epidemiology
		Online lectures and quizzes: Read Chapters 1-2
2	January 25	Online meeting: Measures of Disease Frequency, Descriptive Epidemiology
		Online lectures and quizzes: Read Chapters 3,4
3	February 1	Online meeting: Review Chapters 1-4 Problem Sets
4	February 8	Online meeting: Screening
		Online lectures and quizzes: Read Chapter 5, Screening Problem Set (due 2/14)
5	February 15	Online meeting: Screening Homework, Randomized Trials (RCT)
		Online lectures and quizzes: Read chapter 7, Critique of Magee et al. NEJM, 2015, RCT Critique Guidelines (due 2/21)
6	February 22	Online meeting: RCT Homework, Cohort Studies
		Online lectures and quizzes: Read Chapter 9, Critique of Patel et al., NEJM, 2015 Cohort Study Critique Guidelines (due 2/28)
7	February 29	Online meeting: Cohort Study Homework, Case-Control Studies,
		Online lectures and quizzes: Read chapter 10, Preston et al., EAU, 2014, Critique of Case-Control Study Guidelines, Study Design Exercise (due 3/6)
8	March 7	Midterm: No Online Meeting
		Midterm Due March 13, 11:59 PM
9	March 21	Online meeting: Measures of Association: Relative Risk, Odds Ratio, Attributable Risk, Review Critique of Case-Control study of Metformin
		Online lectures and quizzes: Measures of Association, Problem Sets, (due 3/27 11:59 PM)

10	March 28	Online Meeting: Review Midterm, Measures of Association, Study Design, Causality, Bias and Confounding, Interaction (Effect Modification)
		Online lectures and quizzes: Read Chapters 14 and 15, Problem Set: Causality (due 4/3), Smith on Causality
11	April 4	Online Meeting: Causality, Bias and Confounding, Interaction (Effect Modification) (continued)
		Online lectures and quizzes: Problem Set: Causality, Part 2 (due 4/10) /Watch Scot Venners on Confounding and DAGs (see Overview 11)
12	April 11	Online Meeting: Epidemiology and Policy
		Online lectures and quizzes: Read Chapter 19
13	April 18	Online Meeting: Health Services Research
		Online lectures and quizzes: Read Chapter 19
14	April 25	Online Meeting: Review Practice Final and Course Overview
		Final Available April 25 th 8 PM Due May 2 nd , 11:59 PM
	May 2	Final Due