

PUBHEPI 6442 – Methods in Social Epidemiology
3 Credit Hours- Autumn 2025
Tuesdays/Thursdays 11:10-12:30; Arps Hall, 012

Course Instructor

Dr. Amie Hufton, PhD (Population Health, University of Texas Medical Branch, 2023)
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Instructor's Office Hours

Tuesdays 2-3PM Zoom (or in-person upon request)
Join Zoom Meeting
<https://osu.zoom.us/j/96087247548?pwd=0J3JFq7Po3HqPY9XjqQ3744axrYqQD.1>
Meeting ID: 960 8724 7548
Password: 438404

Faculty Feedback & Response Time:

The following gives you an idea of my intended availability during the course:

- **Grading:** You can generally expect feedback within 10 school days, unless a different turnaround time (due to travel, etc) is announced.
- **E-mail:** I will reply to e-mails and Carmen messages within 2 school days.

Course Description

Social and structural contributors to the distribution of health and disease in populations with emphasis on measurement and methodological challenges. This course will consider the role of social interactions and processes (past and present) as exposures and as influencers of exposures which ultimately lead to differences in health outcomes. Students will gain perspective on the influence of social exposures (e.g., socioeconomic position) to the prevalence and incidence of health and disease at the level of the individual and population. The course will provide students with practice in the interpretation and evaluation of research related to social epidemiology.

Prerequisites

Grad standing and at least one of the following: graduate level introductory epidemiology course (e.g., PUBHEPI 6410, 6430, PUBHLTH 6001), or undergraduate social epidemiology course e.g., PUBHEPI 4410), or permission of instructor.

Course Learning Objectives

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

- 1) Describe how social, economic, and political context underlies differences in the health of population groups, particularly historically disadvantaged groups.
- 2) Identify social determinants of health.

- 3) Recognize biological mechanisms by which social factors impact health.
- 4) Explain challenges and current approaches to measurement of exposures in social epidemiology.
- 5) Investigate in depth and report on a specific method or topic in social epidemiology.

Competencies:

Public Health Foundational Knowledge:

- 1) Explain public health history, philosophy and values
- 10) Explain the social, political and economic determinants of health and how they contribute to population health and health inequities

Public Health Foundational Competencies:

- 6) Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and systemic levels

MPH Epidemiology Specialization Competencies

Upon graduation, a successful student with an MPH degree specialization in Epidemiology will be able to:

- 5) Demonstrate familiarity with the basic content and issues in at least two substantive areas of application in epidemiology

A complete list of College of Public Health Competencies is located on the College of Public Health website: <https://cph.osu.edu/students/competencies>.

Text/Readings:

Required Text/Readings:

1. Berkman LF, Kawachi I, Glymour MM (editors). *Social Epidemiology, Second Edition*. Oxford: Oxford University Press. 2014. The textbook will provide a foundation and useful reference. Many of the textbook chapters will be assigned and these chapters will form the basis for the quizzes in the course. You can find the [book online](#) through the OSU library .
2. Methods in Social Epidemiology (Public Health/Epidemiology and Biostatistics Book 2nd Edition, by J. Michael Oakes (Editor), Jay S. Kaufman (Editor) – ISBN-10 9781118505595; ISBN-13 978-1118505595
3. In addition to the assigned textbook chapters, any readings and other resources needed to prepare for class or for assignments will be posted to Carmen at least one week before they are needed.

Recommended Text/Readings:

1. The Social Causes of Health and Disease, 3rd Edition by William C. Cockerham (Author). ISBN-10 - 1509540369; ISBN-13 - 978-1509540365. The second edition [second edition](#) is available in the OSU library.

Carmen

There is a Carmen site for this course: <https://carmen.osu.edu>. All course materials are available via Carmen.

You will need to use BuckeyePass (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device help article for step-by-step instructions (<https://admin.resources.osu.edu/buckeyepass/adding-a-device>)
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click **Enter a Passcode** and then click the **Text me new codes** button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- Download the Duo Mobile application (<https://admin.resources.osu.edu/buckeyepass/installing-the-duo-mobile-application>) to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357(HELP) and IT support staff will work out a solution with you.

Class Format: How this course works

- **Mode of delivery:** This is an in-person course with two weekly in-person class sessions, consisting of lecture, in-class exercises and discussions. Prior to coming to class on Tuesdays, students should review the course content in the corresponding module and review the assigned materials. During class, we will discuss the topic of the week and complete in-class assignments. Each week, a new module will open.
- Should in-person classes be canceled by University officials, I will notify you as to which alternative methods of teaching will be offered to ensure continuity of instruction for this class. Communication will be via Carmen.
- **Credit hours and work expectations:** This is a **3-credit-hour course**. According to Ohio State policy (go.osu.edu/credithours), students should expect around 3 hours per week of time spent on direct instruction and interaction with peers (e.g., in-class lectures, discussions and exercises) in addition to 6 hours of homework/active learning activities (e.g., assignments listed below) to receive a grade of (C) average.
- **Attendance and participation requirements:** Success in this course is dependent on attendance and participation in class. Participation will be assessed by attendance and completion of weekly in-class exercises. While the short activities nested in the lectures themselves may be ungraded, completion of activities will document your participation.

Course Technology

Technology skills needed for this course

- Basic computer and web-browsing skills
- Navigating Carmen (go.osu.edu/canvasstudent)
- CarmenZoom virtual meetings (go.osu.edu/zoom-meetings)

Required equipment

- **Computer:** current Mac (Mac OSX) or PC (Windows 10+) with high-speed internet connection
- **Calculator:** Students should have access to a scientific calculator that can perform basic arithmetic, square roots, logarithms, and exponentiation.
- **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

Required software:

- Students will be required to use either Stata, SAS or R for the course project. Free options of these are available for personal installation.
 - SAS OnDemand for Academics, available at: https://www.sas.com/en_us/software/on-demand-for-academics/references/getting-started-with-sas-ondemand-for-academics-studio.html
 - R/RStudio, available at: <https://rstudio.com/products/rstudio/#rstudio-desktop>

Optional equipment (for participation in optional live office hours and/or review sessions)

- **Webcam:** built-in or external webcam, fully installed and tested
- **Microphone:** built-in laptop or tablet mic or external microphone

Optional software

- **Microsoft 365 Copilot (formerly Office 365)**

All Ohio State students are now eligible for free Microsoft 365 Copilot (formerly Office 365). Full instructions can be found at go.osu.edu/office365help.

Technology support

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** <http://it.osu.edu/help>
- **Phone:** 614-688-4357(HELP)
- **Email:** servicedesk@osu.edu

Assignments/Assessments

Reflections: 40% (Submitted online)

Most weeks, students will be expected to read and reflect on the course material prior to the first class day. Students will submit a short (700-1100 words) reflection assignment online. Students may discuss the material with peers, however reflections must be written and submitted individually to Carmen. Please see class policies below for additional details.

In-class Exercises: 40%

During each in-person meeting of this course, students will work individually or in small groups to apply the knowledge and skills they have learned. These exercises may include small-group or full class discussions, evaluating evidence related to social epidemiology, using statistical software to describe or analyze variables related to social epidemiology.

Final Course Project: 20%

The final course project is based on an examination of a social epidemiology-related topic of your choosing and with the instructor's approval. This individual project will include a) a brief literature review of the topic, b) a statistical analysis of a data set related to your chosen topic OR an evaluation of real-world policies aimed at addressing your chosen topic and c) a poster-session style presentation to communicate your findings to your peers. Further instructions and due dates will be provided in the assignment instructions on Carmen.

Grading

Reflections (10)	40%
In-class Exercises (weekly)	40%
Final Course Project (3 parts)	20%

Grading Scale

A	93 to 100	Outstanding work that reflects mastery of the material and the ability to apply it
A-	90 to <93	Excellent work that reflects mastery of the material
B+	87 to <90	Good work that reflects mastery of most of the material
B	83 to <87	Good work that reflects mastery of some of the material

B-	80 to <83	Good work that reflects mastery of a few aspects of the material
C+	77 to <80	Mediocre work that reflects familiarity with, but not mastery of the material
C	73 to <77	Mediocre work that reflects familiarity with most of the material
C-	70 to <73	Mediocre work that reflects little familiarity with the material
D+	67 to <70	
D	60 to <67	
E	Below 60	

Class Policies

- Late work is not accepted without communication with the instructor prior to the due date posted on Canvas. However, there is a 24-hour grace period for all reflection assignments, and if the student submits the assignment within 24 hours of the due date posted on Carmen, there will be no grade penalty to that submission.
- All assignments must be submitted on Carmen, and assignments emailed to the instructor may not be graded.
- You are prohibited from uploading course materials to Quizlet, Chegg, etc.
- If you have questions/concerns about the course material, please reach out to the instructor or attend office hours.

Copyright Statement

This syllabus and all course materials (e.g., homework assignments, solution keys, course materials) are under copyright by the instructor and cannot be posted elsewhere without written permission.

Generative AI Policy

Given that the learning goals of this class are to help you enhance *your* skills in critical thinking, writing, interpretation of results, and evaluation of evidence, the use of generative artificial intelligence (GenAI) tools such as Copilot or ChatGPT is not permitted in this course. Any use of GenAI tools for work in this class may therefore be considered a violation of Ohio State's [Academic Integrity](#) policy and [Code of Student Conduct](#) because the work is not your own. If I suspect that you have used GenAI on an assignment for this course, I will ask you to communicate with me to explain your process for completing the assignment in question. The use of unauthorized GenAI tools will result in referral to the [Committee on Academic Misconduct](#).

If you feel you need to use GenAI for translation, please contact me first. If you have any other questions regarding this course policy, please contact me.

Office of Student Life: Disability Services

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let me know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to

request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Mental Health Services

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling [614-292-5766](tel:614-292-5766). CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at [614-292-5766](tel:614-292-5766) and 24 hour emergency help is also available 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

Religious Beliefs or Practices Accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement and the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the [Civil Rights Compliance Office](#). (Policy: [Religious Holidays, Holy Days and Observances](#))

Academic Misconduct

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee ([Faculty Rule 3335-5-48.7 \(B\)](#)). For additional information, see the [Code of Student Conduct](#).

Intellectual Diversity

Ohio State is committed to fostering a culture of open inquiry and intellectual diversity within the classroom. This course will cover a range of information and may include discussions or debates about controversial issues, beliefs, or policies. Any such discussions and debates are intended to support understanding of the approved curriculum and relevant course objectives rather than promote any specific point of view. Students will be assessed on principles applicable to the field of study and the content covered in the course. Preparing students for citizenship includes helping them develop critical thinking skills that will allow them to reach their own conclusions regarding complex or controversial matters.

Grievances and Solving Problems

A student who encounters a problem related to his/her educational program has a variety of avenues available to seek resolution. According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, you may take your case to the department chairperson. Specific procedures are outlined in [Faculty Rule 3335-8-23](#), the [CPH Graduate Student Handbook](#), and the [CPH Undergraduate Student Handbook](#). Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department.

Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office:

Online reporting form at <http://civilrights.osu.edu/>,
Call 614-247-5838 or TTY 614-688-8605,
Or Email civilrights@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Civil Rights Compliance Office to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Course Outline

Week/ Module	Dates	Topics and Readings	Assignments Due on Sunday night prior; Details on in-class assignments provided on Carmen
1	8.26, 28	What is Social Epidemiology and Theory? Readings: • Social Epidemiology 2nd ed. Ch 1 • Methods in Social Epidemiology, 2nd ed. Ch 1 • Diez Roux AV. Social Epidemiology: Past, Present, and Future. Annu Rev Public Health. 2022	
2	9.2, 9.4	Socioeconomic Position Readings: • Social Epidemiology 2nd ed. Ch 2 • Methods in Social Epidemiology, 2nd ed. Ch 2 • Selected articles	
3	9.9, 9.11	Income Inequality and Health Readings: • Social Epidemiology 2nd ed. Ch 4 • Methods in Social Epidemiology, 2nd ed. Ch 4 • Selected articles	Reflection #1
4	9.16, 9.18	Race/Ethnicity Part 1 Readings: • Social Epidemiology 2nd ed. Ch 3 • Selected articles	Reflection #2
5	9.23, 9.25	Race/Ethnicity Part 2 Readings: • Methods in Social Epidemiology, 2nd ed. Ch 3	Reflection #3
6	9.30, 10.2	Stress Readings: • Selected articles	Reflection #4
7	10.7, 10.9	Occupational Stress Readings: • Social Epidemiology 2nd ed. Ch 5 • Selected articles	Reflection #5
8	10.14 (No Class on 10.16 due to Fall Break)	Social Networks and Social Relationships Readings: • Social Epidemiology 2nd ed. Ch 7, 8 • Methods in Social Epidemiology, 2nd ed. Ch 9 • Selected articles	Course Project Part 1
9	10.21, 10.23	Gender and Marital Status; Other Topics Readings: • Selected articles	Reflection #6
10	10.28, 10.30	Place Part 1 Readings:	Reflection #7

		• Methods in Social Epidemiology, 2nd ed. Ch 6 • Selected articles	
11	11.4, 11.6	Place Part 2 Readings: • Methods in Social Epidemiology, 2nd ed. Ch 7 • Selected articles	Reflection #8
12	11.13 (No Class on Tuesday 11.11 due to Veteran's Day)	Life Course and Early Disadvantage Readings: • Methods in Social Epidemiology, 2nd ed. Ch 18 • Selected articles	Reflection #9
13	11.18, 11.20	Student Presentations of Course Project	Course Project Part 2
14	11.25 (No Class on Thursday 11.27 due to Thanksgiving)	Biological Pathways Readings: • Social Epidemiology 2nd ed. Ch 14 • Selected articles	Reflection #10
15	12.2, 12.4	Interventions Readings: • Social Epidemiology 2nd ed. Ch 11 • Selected articles	Reflection #11
16	12.9 (No Class Thursday 12.11 as Wednesday is Last Day of Class)	Applications, Policy and Translation Readings: • Social Epidemiology 2nd ed. Ch 12, 15 • Selected articles	Course Evaluation; Course Project Part 3

Alignment of Competencies with Assessments

Competencies	Reflections	In-Class Assignments	Course Project
Public Health Foundational Knowledge:			
Explain public health history, philosophy and values	x	x	
Explain the social, political and economic determinants of health and how they contribute to population health and health inequities	x	x	x
Public Health Foundational Competencies:			
Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and systemic levels	x	x	x
MPH Epidemiology Specialization Competencies			
Demonstrate familiarity with the basic content and issues in at least two substantive areas of application in epidemiology	x	x	x