

PUBHEPI 8899.04 – Research Questions and Study Design in Epidemiology
1 credit hour – Spring 2026
Thursdays / 11:35am – 12:30pm / Cunz 136

Course Instructor

Dr. Electra D. Paskett

Degree: Ph.D.

Area: Epidemiology and Health Services

Institution: University of Washington

Date: 1989

Office Location and Phone Number:

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Instructor's Office Hours

After class and by appointment

Faculty Feedback & Response Time:

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

- **Grading:** You can generally expect feedback within 7 days.
- **E-mail:** I will reply to e-mails within 48 hours on school days.

Graduate Teaching Assistant (GTA)

Dr. Chloe Hery

Chloe.Hery@osumc.edu

Office hours: after class and by appointment

GTA Responsibilities

The GTA assigned to the course will hold regular office hours and lead review sessions for any students who need help with class material. The TA may assist with scoring assignments; however, final grades will be assigned by the professor. **Any questions regarding grading should be directed to the professor and not the TA.**

Course Description

The goal of this seminar is to help PhD students sharpen their understanding of study design and epidemiologic methods. This course is designed for second year PhD students in the Division of Epidemiology. More advanced students are also encouraged to attend. The purpose of this course is to assist students in identifying research questions and considering appropriate study designs for the research question. The course will use readings, both historical and current, to emphasize key points about study design. Sources of bias will also be discussed. Students will apply these concepts to studies in their own substantive areas.

Prerequisites

Enrolled in the PhD in Epidemiology program, or have instructor permission to enroll in course.

Course Learning Objectives

- Recognize the importance of epidemiology for informing scientific, ethical, economic, and political discussion of health issues.
- Use the basic terminology and definitions of epidemiology.
- Identify key sources of bias in epidemiologic studies.
- 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.
- Draw valid inferences from epidemiologic data.

Competencies:

- 2. Synthesize and critique existing literature in student's area of specialization to identify gaps in the evidence base and justify their importance for public health
- 3. Apply relevant theories and conceptual models to inform and ground research design and interpretation
- 4. Communicate in writing and orally a research study's purpose, methods, results, limitations, conclusions and public health relevance to both informed and lay audiences

Text/Readings:

Assigned readings will be posted on Carmen. You are expected to do the reading before class. Please bring the articles to class to refer to them during the discussion.

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 course is 100% in-person. Exceptions may be made for inclement weather or illness. Instructor permission must be received before class if you would like to join virtually.

- **Credit hours and work expectations:** This is a **1-credit-hour course**. According to Ohio State policy (go.osu.edu/credithours), students should expect around 1 hours per week of time spent on direct instruction (e.g., [class presentations, discussions, etc]) in addition to 2-3 hours of homework/active learning activities (e.g., [reading journal articles, writing critiques for each article assigned]) to receive a grade of (S) average.
- **Attendance and participation requirements:**
 - **Attendance** is expected in all scheduled classes. If a student has an extenuating circumstance (e.g. unforeseen medical issues, death in the family, etc.) that prevents them from attending class, they should notify the instructor before class.
 - **Participation** is expected by all students in each class. I care as much about the quality of your listening as I do about the quality of your talking. Students should come to each class prepared with 3-5 discussion questions/comments written for each article.

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
- **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

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

Required 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

Assignments: x%

Each student will be assigned two dates (see course schedule) to facilitate discussion of two articles of their choice. The articles must describe results of an epidemiologic study; reviews or meta- analyses should not be selected. The articles must be approved in advance by the instructor. Students are encouraged to choose two articles well ahead of time; the instructor would like to post the selected articles to Carmen as soon as possible - a minimum of 1 week prior to class. Please email PDFs of the articles to the instructor.

Students will rotate facilitator roles. The facilitator is responsible for leading the class discussion of the article. The facilitator must come prepared with a written plan (facilitator outline) that they can use to guide the discussion. The plan should outline the key points that they want the discussion to touch upon,

and include potential discussion questions, comments, and notes. The facilitator should be capable of keeping the discussion flowing for 50 minutes. The facilitation plan will be submitted and reviewed by the instructor.

All students are responsible for reading each of the assigned articles and writing a 1 paragraph summary of their interpretation of each article. Summaries should be emailed to the instructor either before or within 24 hours of the class. They will be reviewed by the instructor but will not be evaluated.

Policy on Switching Presentation Dates: Please note that if you should need to reschedule your presentation date, it is your responsibility to arrange a swap with someone else on the schedule. Please communicate the change to the instructor via email so that the course schedule can be updated.

Late Assignments: Late assignments will be accepted on a case-by-case basis with justification.

Working with other students: Opportunities for working with other students are limited in this course but mainly will take place in class through the discussion of journal articles.

Using other resources: For some journal articles, other resources might be needed to assist with the discussion.

Grading

This course is graded as Satisfactory/Unsatisfactory. Grading will be based on attendance, class participation and discussion facilitation.

Class Policies

See Class Format Attendance and Participation for more details.

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

Students are not permitted to use AI for class assignments and journal article summaries.

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 accommodation, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodation 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

Course schedule and outline below will be updated as student-led discussion dates are determined after first class.

Week	Class	Date	Readings & Topics
1		January 15	<p>Bretthauer, M., Løberg, M., Wieszczy, P., Kalager, M., Emilsson, L., Garborg, K., ... & Kaminski, M. F. (2022). Effect of colonoscopy screening on risks of colorectal cancer and related death. <i>New England Journal of Medicine</i>, 387(17), 1547-1556. (see Files on Carmen)</p> <p>Dominitz, J. A., & Robertson, D. J. (2022). Understanding the Results of a Randomized Trial of Screening Colonoscopy. <i>New England Journal of Medicine</i>, 387(17), 1609-1611. (see Files on Carmen)</p> <p>FDA's Singh and Rivera describe the “new normal”—and the future—in cancer pragmatic trials. https://cancerletter.com/conversation-with-the-cancer-letter/20221209_1/ (see Files on Carmen)</p>
2		January 22	<p>Guest Lecture: Dr. Holli Loomans-Kropp Reading:</p> <ol style="list-style-type: none"> Dai, H et al. GLP-1 Receptor Agonists and Cancer Risk in Adults With Obesity. https://jamanetwork.com/journals/jamaoncology/fullarticle/2837870?resultClick=1 (see file on Carmen)
3		January 29	Student Presenter: Claire
4		February 5	Student Presenter: Kayla
5		February 12	Student Presenter: Sherif
6		February 19	Student Presenter: Claire
7		February 26	Student Presenter: Emma
8		March 5	Student Presenter: Matthew
9		March 12	Guest Lecture: Dr. Jesse Plascak Reading: TBD
10		March 26	Student Presenter: Matthew
11		April 2	Student Presenter: Kayla

Week	Class	Date	Readings & Topics
12		April 9	Student Presenter: Emma
13		April 16	Guest Lecture: Dr. Xiaochen Zhang Reading: TBD
14		April 23	Student Presenter: Sherif

Alignment of Competencies with Assessments

CPH Competency Areas	Assessments		
Competencies	Participate in class discussions	Facilitate discussion on research article	Weekly summaries of research articles
2. Synthesize and critique existing literature in student's area of specialization to identify gaps in the evidence base and justify their importance for public health		X	X
3. Apply relevant theories and conceptual models to inform and ground research design and interpretation	X	X	X
4. Communicate in writing and orally a research study's purpose, methods, results, limitations, conclusions and public health relevance to both informed and lay audiences	X		X