

PUBHBIO 8899 – Doctoral Seminar in Biostatistics
1 credit hour – Fall 2025

Lectures: Thursdays, 1 – 2pm in Cunz Hall room 380B (Zoom link
<https://osu.zoom.us/j/8202455595?pwd=Y3ZERFp3cHA2ZGFYbmNlM0dWNW13dz09>)

Course Instructor:

Andy (Ai) Ni, PhD in Biostatistics, University of North Carolina at Chapel Hill, 2015.

Office location: 224 Cunz Hall

Phone number: 614-292-5482

E-mail: ni.304@osu.edu

Office hours: 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 24 hours on school days.

Course Description: Doctoral Seminar in Biostatistics is designed to introduce different research areas of biostatistics faculties, polish literature search, scientific writing, and oral presentation skills in biostatistics, and establish a network of professionals outside of our program through seminar participation. Other topics including high performance computing will also be covered.

Prerequisites: Enrollment in Biostatistics PhD program or permission of the instructor.

Class Format: A typical class period will be comprised of one or a combination of:

- Faculty research presentation.
- Lecture and Discussion about writing scientific papers; oral presentations; literature search.
- Student presentations.

Course Learning Objectives:

The main objective of this course is to expose students to a broad array of research being conducted in our field. A secondary objective is to equip students to write scientific papers and give oral presentations.

Upon successful completion of this course, students will be able to:

1. Describe the essential elements of scientific papers.
2. Conduct effective literature search on given research topics.
3. Give effective oral presentations.

Core Competencies: This course will satisfy the following additional Biostatistics core competencies for PhD students:

- Critique general scientific research articles and assess the appropriateness of the statistical applications and methodology involved. (2)
- Review and critique existing literature in students' general area of specialization, and can identify gaps in that literature (6).

A complete list of College of Public Health Competencies is located in Appendix C of the CPH Graduate Student Handbook that can be found at: <https://go.osu.edu/cphgradcompetencies>

Text/Readings: There is no required text for the course. Some selected articles will be posted on the course website.

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 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.

Grading: Final class grades will be determined as follows:

Class Participation*	20%
Paper Reflection	10%
Biostats Seminar Reflections (2)	20% (10% each)
Literature review project	20%
Paper Presentation	30%

Students with a score of 80 or higher will receive an "S" for the course; students who score below an 80 will receive a "U."

*: 2 points will be deducted for each unexcused absence.

Class participation: Students are expected to attend lectures on time and participate in class discussions.

Paper reflection: Students are to read a paper from biostatistical literature and write a two-page evaluation on how well the paper has followed different aspects of scientific writing that are covered in the course.

Biostats seminar reflection: Students are to attend two talks in the [Biostatistics Seminar Series](#) and write a one-page reflection on the contents and delivery of each seminar.

Literature review project: Students are to conduct literature search on an assigned topic using the methods discussed in the course and write a one-page literature review.

Paper presentation: Each student will read a paper of their choice from biostatistical literature and give a 10-minute oral presentation on the paper and answer questions from the instructor and classmates.

Tentative Course Schedule:

Week	Date	Topics	Reading [†]	Assignment Due
1	8/28	Introduction to Course, Scientific Writing	Miller, 2006	
2	9/4	Scientific Writing	CDC: "Making Data Talk" Lang, 2017	
3	9/11	Scientific Writing		
4	9/18	Faculty talk: Dr. Andy Ni (in-person)		
5	9/25	Literature Search and Management		Paper reflection due
6	10/2	How to conduct efficient simulations		
7	10/9	Faculty talk: Dr. Yuzi Zhang (in person)		Literature review project due
8	10/16	Fall Break, no class		
9	10/23	High Performance Computing Using the Ohio Super Computer		Paper selection due for presentation
10	10/30	Faculty talk: Dr. Kellie Archer (in-person)		
11	11/6	Faculty talk: Dr. Abby Shoben (in-person)		
12	11/13	Faculty talk: Dr. Greg Rempala (in person)		
13	11/20	Giving an Effective Oral Presentation	Gelman, 2002 Becker, 1996	
14	11/27	Thanksgiving, no class		
15	12/4	Student Presentations		Two seminar reflections due

Copyright Statement

This syllabus and all course materials (e.g. lecture notes, video recordings) are under copyright by the instructor and cannot be posted elsewhere without written permission.

Generative AI Policy

In this course, students are welcome to explore innovative tools and technologies including generative artificial intelligence (GenAI) to assist with their course assignments. Your written assignments should be in your own words.

Course technology

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 ocio.osu.edu/help/hours, and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** ocio.osu.edu/help
- **Phone:** 614-688-4357(HELP)
- **Email:** servicedesk@osu.edu
- **TDD:** 614-688-8743

Technology skills needed for this course

- Basic computer and web-browsing skills

Required equipment

- Computer: current Mac (MacOs) or PC (Windows 10) with high-speed internet connection
- Other: a mobile device (smartphone or tablet) to use for BuckeyePass authentication

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.

Online Lecture Alternative

Should in-person classes be canceled due to instructor's illness, weather, or university policy, we will meet virtually via Zoom during our regularly scheduled time. The Zoom link is posted at the beginning of this syllabus.

Alignment of Competencies with Assessments

	Paper reflection	Biostats Seminar Reflections	Literature review Project	Paper presentation
Understands the theoretical foundations of statistical methods (1)	X	X		
Can effectively communicate the results of statistical analyses to statistical and non-statistical audiences (5)				X
Can review and critique existing literature in students' general area of specialization, and can identify gaps in that literature (6)			X	X