



CAROLINA  
UNIVERSITY

---

## Measures in Epidemiology MPH 640 (50)

Fall 2025 Session 1

### **PROFESSOR: Dr. Tehmina Khan**

Office Location: Deeds 308

Office Hours: In - Person Wed 11:00 am - 3:00 pm; Thu 11:00 am - 1:00 pm

[meet.google.com/cyp-tjng-vsm](https://meet.google.com/cyp-tjng-vsm)

[meet.google.com/qxm-mwsb-aqy](https://meet.google.com/qxm-mwsb-aqy)

Online By Appointment: [meet.google.com/msb-wbfh-zyx](https://meet.google.com/msb-wbfh-zyx)

Phone: (336) 283-6371 x 1003

Email Address: [khant@carolinau.edu](mailto:khant@carolinau.edu)

## Carolina University Mission Statement

Carolina University is a Christ-centered University committed to educating aspiring leaders worldwide through exceptional teaching, scholarly research, creative innovation, and professional collaboration.

## Course Information

### **Course Prerequisites**

MPH 505- Epidemiology

One undergraduate course in Biology, Chemistry, Microbiology, or Mathematics.

### **Course Description**

3 Credit Hours

Through data sets & simulations, this course investigates how epidemiological data is collected, analyzed and reported. Different ways to study and report the health of a population will be explored, and their caveats discussed. The importance of understanding and removing bias from epidemiologic studies will also be a key point.



Students will be asked to design and implement a research project that uses an integration of statistics and analytic techniques on current public health and epidemiological data to analyze and report on a current public health problem. Sources of public health surveillance data may include vital statistics records, public medical records, personal interviews, surveys, and data from laboratory testing.

## Course Delivery and Methods

The course will utilize textbook reading, journal article reading, professor lectures, and student interaction through discussions, and final capstone projects.

## Objectives (Course Learning Outcomes)

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

1. Understand different epidemiological measures such as incidence, prevalence, mortality rate, and risk ratios, to analyze public health data and assess disease patterns.
2. Analyze and interpret epidemiological data using statistical methods so that emerging trends and association and causal relationships are identified between exposures and health outcomes.
3. Understand critical epidemiological study design, including cohort, case control, and cross-sectional studies, ensuring appropriate selection of measures and methodologies for research questions.
4. Apply evidence-based knowledge to evaluate quality and validity of epidemiological studies, assessing methodology, data collection, and findings.

## Course Resources

### Required Texts:

Modern Epidemiology. Timothy L. Lash (Author), Tyler J. VanderWeele (Author), Sebastien Haneuse (Author), Kenneth J. Rothman. Fourth edition, Jan 2021, ISBN-10: 1451193289, ISBN-13: 978- 1451193282)

### Required Resources:

Accessibility to laptop or computer

Additional journal articles will be provided by the professor throughout the course.

Contact the university IT department if you face any problems with LMS.

### Recommended Resources:

Not Applicable.



## Course Requirements and Assignments

### Group Discussions

Discussion will be held in-person within the class meeting time. Students will be graded based on participation. Students will be separated into groups and prompts will be given by the professor. Students are expected to share their findings with the instructor.

### Deliverables

Deliverables are defined as assignments which contribute to the completion of the final project. This includes project proposal, literature review, methods and design, data analysis, and abstract.

### Quizzes

Weekly quizzes will be administered via eLearning. Quizzes will cover the material covered within that specified week in the course.

### Final Project

The final project/Capstone project will be a culmination of the material covered within this course. Students are expected to submit a PowerPoint (11-15 slides) or a paper written in APA format. The Capstone Project will be presented in the class.

## Course Schedule

### Quiz Schedule

Quiz 1: Aug 31  
Quiz 2: Sep 07  
Quiz 3: Sep 14  
Quiz 4: Sep 21  
Quiz 5: Sep 28

### Deliverables Schedule

Assignment 1: Aug 31  
Assignment 2: Sep 07  
Assignment 3: Sep 14  
Assignment 4: Sep 21  
Assignment 5: Sep 28

### Final Project Deadline

Final Project : Oct 05



## Course Specific Policies

### Use of Artificial Intelligence

The use of generative AI tools is permitted in this class for the following activities:

- Brainstorming and refining ideas
- Fine-tuning research questions
- Finding information on a topic
- Drafting an outline
- Checking grammar and style
- AI-specific assignments (per the provided instructions)

The use of generative AI tools is not permitted for the following activities:

- Impersonation in classroom context (e.g. composing discussion board posts)
- Completing group work
- Writing a draft of a writing assignment
- Writing entire sentences, paragraphs, or papers to complete class assignments

The use of AI generative tools is not permitted to do your assignments, homework and your research paper writing assignments. You have to use your own words and your own ideas, imagination to complete these assignments or paper writing. The assignments are given to enhance your productivity and innovation.

### Important Note:

Students are required to submit a scanned copy of handwritten "Cornell Note" of lectures each week to acquire 5 points. It is located under the Resources/"Handout" tab in the student portal or LMS.



## Course Grading

| Assignment Type   | Weight (points or percentage) |
|-------------------|-------------------------------|
| Discussion Groups | 10%                           |
| Cornell Notes     | 5%                            |
| Quizzes           | 25%                           |
| Deliverables      | 25%                           |
| Capstone Project  | 35%                           |
|                   |                               |
| Total             | 100%                          |

## Course Assessment Mapping

| Assessment       | Objective(s) Met |
|------------------|------------------|
| Quizzes          | 1~3              |
| Deliverables     | 1~3              |
| Capstone Project | 4                |



## University Policies

### Late Assignment Policy

- Students are expected to inform professors prior to a scheduled absence and understand work may be made up at the professor's discretion to ensure full credit.
- Upon an unexpected absence from class, the student should contact the professor immediately to discuss make-up work and submit such work in a timely manner.
- Students should not wait until the end of the session to deal with concerns about absences.

### Grading Scale

| Grade     | Point Value | Range         |          |
|-----------|-------------|---------------|----------|
|           |             | Undergraduate | Graduate |
| <b>A</b>  | 4           | 94-100        | 96-100   |
| <b>A-</b> | 3.7         | 90-93         | 93-95    |
| <b>B+</b> | 3.3         | 87-89         | 90-92    |
| <b>B</b>  | 3           | 83-86         | 87-89    |
| <b>B-</b> | 2.7         | 80-82         | 85-86    |
| <b>C+</b> | 2.3         | 77-79         | 82-84    |
| <b>C</b>  | 2           | 73-76         | 79-81    |
| <b>C-</b> | 1.7         | 70-72         | 77-78    |
| <b>D+</b> | 1.3         | 67-69         | 74-76    |
| <b>D</b>  | 1           | 60-66         | 70-73    |
| <b>F</b>  | 0           | <60           | <70      |



## Instructor Student Interaction & Communication

- Please use email whenever possible.
- Throughout an active course, faculty should respond to all emails and voicemail messages within 24 hours.
- Grading of assignments is to be done within 3 days for regular assignments (this includes attendance) and 7 days for larger assignments.
- Some assignments may require additional time to grade due to the length of the project and the directive to provide substantive feedback that will assist you throughout the learning process. In cases where the assignment is not returned with feedback within the stated period, refer to communication from your professor to facilitate expectations on subsequent assignments. Students are not expected to apply adjustments on subsequent assignments in advance of returned grading and feedback.

All CU faculty and students are provided with means of electronic communication (e.g. email, video conferencing, chat features, discussion boards, etc.) All employees and students are required to use official university electronic accounts for official university correspondence. This policy is meant to include both synchronous and asynchronous communication. **Faculty and staff are not obligated to read, receive, or respond to communications where these guidelines are not followed.** Email must be checked regularly, especially when enrolled in an active course. Adhere to the following guidelines when communicating online with professors, university employees, and other students.

- Accounts: Only university email and related systems should be used for institutional communications. Do not use personal email or video conferencing accounts.
- Names: Refer to professors and CU employees by their last names with appropriate honorifics (e.g., “Dr.” or “Prof.”). For professors, if you cannot easily verify their degree or status, “Prof.” is most appropriate—not “Ms.” or “Mr.” *Under no circumstance should you use first names unless given explicit permission.*
- Introductions: Use subject lines appropriately and begin any course-specific email with your first and last name, the course number, and your exact section number or meeting time (e.g., “101-05,” “9 am MW,” but not “this morning”).
- Grammar and Style: All written communications must conform to standard English. Emails and discussion board posts should not resemble text message, chat, or social media posts. Use complete sentences with correct capitalization, spelling, punctuation, and grammar.
- Coordination: All members of a synchronous, online interaction should participate by the same mode of interaction when possible. For example, join video conferences with video. This is especially true for one-on-one meetings with your professor and small group video discussions in or outside of class.
- “Class” Conduct: When participating in synchronous classes or meetings (especially when using video), conduct yourself as if in the classroom. Be on-time and mentally present. Be seated at a desk or table. Dress according to classroom standards. Do not introduce distractions into the interactions and be prepared to stay for the duration of the session per normal classroom behavior.



- Complexity: In general, asynchronous communication is appropriate for simple questions and activities. Complex questions that require more than one simple response should be addressed synchronously—during class is often best. If you are unable to ask your question during class, or it is too personal to do so, use an asynchronous method to arrange a synchronous meeting.
- Boundaries: Synchronous communication is less formal than asynchronous. However, the appropriate use of names, language, acronyms, and emojis must still conform to classroom standards. Since we do not all share the same online culture, be prepared to explain yourself if your acronym or emoji is not understood. Be polite and respectful when asking for clarification, and gracious when misunderstandings occur.

## Student Complaints

### Informal Resolution

Carolina University seeks to provide an excellent educational experience for all students. If a student wishes to make a complaint of an academic nature, in the first instance, they should seek to resolve the matter by informal discussion with the faculty member.

If the discussion is in person, it is recommended that the student follow up with an email summarizing the discussion (complaint and resolution if one is reached).

If the discussion with the faculty member does not resolve the issue, the student may also contact School dean or director information here, including hyperlink email address. Dr. Murchtricia Jones (jonesm\_2@carolinau.edu) is the dean of CASE.

### Filing a Formal Complaint

If informal discussions do not resolve the complaint, a student may file a formal complaint. No student shall suffer retaliation or other punitive action for the sole reason of filing a complaint or participating in a related process. A student must be enrolled at the institution to file a complaint under this policy. A student may file a complaint about a matter related to teaching, learning, assessment, grading, or student performance in a course.

A student must complete and submit the Student Academic Complaint Form to the Registrar's Office no later than 7 days after the events that are alleged to have caused the complaint. Any supporting evidence must be attached to the form. A vague complaint stating unsupported allegations, obvious falsehoods, based on differences of opinion about academic content or faculty expertise, or is unrelated to academic matters is liable to be dismissed summarily.

For the full text and a thorough explanation of the university's complaint policy, visit: <https://catalog.carolinau.edu/student-academic-complaints>





## Course Attendance and Participation

All courses follow specific attendance policies found in the [Academic Catalog](#) for that course level and format. It is the student's responsibility to be familiar with these policies and to keep track of their own attendance. Per the university attendance policy, accrued absences may contribute negatively toward a student's final grade. Attendance and participation may be used by instructors to determine a portion of a student's grade for a particular course. Whereas attendance is typically defined by statuses identifying a student's presence in a class, participation typically includes the assessment of activity within that course. In some cases, the methodology, subject matter, learning environment, or other factors may require attendance.

Faculty will take attendance during class for on-campus students and will take attendance for online students by academic engagement in a weekly discussion forum. Students should refer to the course syllabus for the course's grade weighting table and course-specific policies regarding the grade percentages attributable to each component in a course, which may include attendance and participation. It is the student's responsibility to be familiar with these policies and to keep track of their own attendance and comply with the rules.

## Disability Assistance

Carolina University welcomes students, faculty, staff and visitors with disabilities to our campus and to our programs. Our goal at CU is to ensure an accessible, inclusive welcoming learning and working environment for individuals with disabilities while complying with federal and state regulations.

Students with disabilities are encouraged to reach out to University Accessibility Services (UAS) as soon as possible to explore possible accommodations. UAS serves as a central resource on disability-related information, procedures and services for the university community and partners will work with the student and any other campus partners to identify barriers and implement plans for access. More information about UAS can be found at <https://carolinau.edu/university-accessibility-services>



## Academic Integrity and Misconduct

The Student Handbook has a detailed list of different ways students show a lack of academic integrity, including academic technology misuse, cheating, complicity, fabrication or invention, falsification, forgery, multiple submissions, plagiarism, and sabotage.

Academic integrity is the honest and responsible conduct of studies, scholarship, research, information collection, and presentation. The university expects students to submit assignments that are original to them and to properly cite and reference other peoples' ideas using the prescribed style guide. The very foundation of a good university education is academic integrity. Learning how to express original ideas, cite sources, work independently, and report results accurately and honestly are skills that carry students beyond their academic careers. If a student is uncertain about an issue of academic honesty, they should consult the faculty member to resolve questions in any situation prior to the submission of the academic exercise.

Maintaining your academic integrity involves:

- Creating and expressing your own ideas in course work.
- Acknowledging all sources of information including verbal, written, digital, and graphic.
- Completing assignments independently or acknowledging collaboration.
- Attending classes, exams, and required academic events.
- Accurately reporting results when conducting your own research.
- Honesty during examinations.
- Not tampering with or misusing technology.
- Not aiding or abetting other students in violating any academic rules or policies.

Courses at Carolina University will utilize proctoring for select exams to ensure exam integrity. Per Carolina University directives, all exams that represent 25% or more of a course grade are required to be proctored. Instances of cheating or inappropriate behavior will be considered violations of the Academic Integrity policy and will result in disciplinary action.

Plagiarism is the use of another person's distinctive ideas or words without acknowledgment. All researchers are expected to acknowledge the use of another author's words by the use of quotation marks around those words in the text of a paper and by appropriate citations. Plagiarism can occur in an oral, written, or media project submitted for academic credit or for some other benefit. Examples of plagiarism include (but are not limited to), the following:

- Word-for-word copying of another person's ideas or words;
- Mosaic (interspersing of one's own words here and there while, in essence, copying another's work);
- Paraphrasing without citation (the rewriting of another's work, yet still using their fundamental idea or theory);
- Submission of another's work as one's own;
- Having another person write a paper;



- Buying or procuring a ready-made paper from a research paper “service” on the Internet or from another such service;
- Neglecting quotation marks on material that is otherwise acknowledged;
- Fabrication of references (inventing or counterfeiting sources)