Course Description
Epidemiology is the study of distribution and determinants of disease (or more broadly health outcomes) in the population. In this introductory class, student will learn and apply basic epidemiologic concepts within a population-based framework. Student will engage in collaborative and active learning through team and individual projects, case studies, quizzes, and lab discussion.

Course Goals*
1. Apply concepts, methods, and tools of public health data collection, analysis and interpretation, and the evidence-based reasoning and informatics approaches that are essential to public health practice.
2. Engage in public health-specific communication including technical and professional writing and the use of electronic technology

*Critical content areas from the Association of Schools of Public Health (ASPH) Framing the Future: The Second 100 Years of Education for Public Health, A Master's Degree in Public Health for the 21st Century.*

Course Objectives
The overall course objectives 1-10** are as follows:

- Explain the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues.
- Describe a public health problem in terms of person, place, and time.
- Apply the basic terminology and definitions of epidemiology.
- Calculate basic epidemiology measures.
- Identify key sources of data for epidemiologic purposes.
- Evaluate the strengths and limitations of epidemiologic reports.
- Comprehend basic ethical and legal principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data.
- Draw appropriate inferences from epidemiologic data.
- Identify the principles and limitations of public health screening programs.
- Communicate epidemiologic information to lay and professional audiences.

**From the Association of Schools of Public Health (ASPH) discipline-specific competencies in epidemiology from the MPH Core Competency Model version 2.3 2006.

Time & Place
Tuesdays 3:30-4:45 pm, Rosenau Auditorium, Rm 0133, Gillings School of Global Public Health, Wed Lab 3:25-5:25pm, Thur Labs 4:00 - 5:50pm, TBA (will be posted in syllabus folder on Sakai). Office Hours Wednesdays 2-3pm, or by appointment.

Course Instructors
Lead Instructor: Karin Yeatts, PhD, MS
Research Assistant Professor: Department of Epidemiology
Email: Karin_Yeatts@unc.edu

Co-Instructor: Lorraine Alexander, DrPH
Clinical Associate Professor: Department of Epidemiology
Email: lorraine_alexander@unc.edu
Teaching Assistants:
Doctoral Student Humberto Parada  Dept. of Epidemiology  Email: hparada@live.unc.edu
Doctoral Student Nat MacNell  Dept. of Epidemiology  Email: macnell@unc.edu
Doctoral Student Nelson Pace  Dept. of Epidemiology  Email: nelson@unc.edu

Assignments

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Individual</th>
<th>Team</th>
<th>Percentage % of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Data Analysis</td>
<td>✔️</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Quizzes (6) (drop lowest)</td>
<td>✔️</td>
<td></td>
<td>15</td>
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<tr>
<td>Participation</td>
<td></td>
<td>✔️</td>
<td>5</td>
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<tr>
<td>Lab assignments (~12) (drop lowest)</td>
<td>✔️</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Team Project</td>
<td>✔️</td>
<td></td>
<td>30</td>
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<tr>
<td>(Presentations Final Exam Date, Dec. 10\textsuperscript{th} 4-7pm. Attendance Mandatory)</td>
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<td>Total</td>
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Assignment Descriptions

Students will work individually on assignments unless indicated assignment is team-based.

**Individual Data Analysis Assignment, (Parts 1,2,3).** The intent of this assignment is for you to integrate epidemiologic concepts and calculations. Using Epi Info software and a data set, you will compute measures of occurrence, association, and assess potential confounding. Due on Fridays.

**Quizzes.** You will have 6 on-line quizzes, two of which you take *before* lecture. The quizzes will cover measures of disease occurrence, measures of association, study design, and systematic error.

**Lab Assignments.** You will have 12 graded labs. Your TA will evaluate your team assignments based on the lab grading rubric.

**Team Project, (Parts 1,2,3).** With your teammates you will design and conduct a small cross-sectional epidemiologic study and present the results to the class at the end of the semester. Two team peer assessments will contribute 10% to your team project grade.

**Participation.** You will be evaluated on your course engagement in lab and lecture. The participation grade is comprised of two peer evaluations on lab contributions, and input from your TA and instructor.

**Extra credit.** There will be a few opportunities in lecture sessions to earn extra credit.
Course Design Methods & Structure
We emphasize active and cooperative learning to bring students together in small, fixed teams to work on structured learning tasks. The faculty and TA are there to steer your team, as a consultant would, on a path toward reaching your team answers.

Teams
Given the course emphasis on collaborative learning, we expect each team member to contribute meaningfully and team members to hold each other accountable. Students will be assigned to teams by the end of the first full week of class; these teams will be listed within the Syllabus tab on the course website. Teams will each have approximately five members, with a mixture of students from different disciplines in the Gillings School of Global Public Health.

Course Resources
Course resources are located on the course Sakai website. They include the following: instructions for labs, individual, and team project assignments; ERIC Notebooks (epidemiology methods periodical); course handouts; links to journal articles or other readings. Your TA and professor are course resources and available to answer questions-when emailing them, keep these points in mind.

Optional Course Resources
Aschengrau A & Seage GR. Essentials of Epidemiology in Public Health. Sudbury, Massachusetts: Jones and Bartlett Publishers, 2007 or 2013 (2nd or 3rd edition) (on reserve at UNC HSL Library)


Grading
Letter grades will be assigned according to the following scale:

Undergraduate students: A (94-100%); A- (90-93.9%); B+ (87-89%); B 83-86%); B (80-82%); C+ (77-80%); C (73-76%); C (70-72%); D+ (67-70%); D (63-66%); D- (50-62%); and F (<50%)

Graduate students: H (94-100%); P (65-93.9); L (50-64.9) and F (<50%)

Due Dates:
Due dates for all assignments will be listed in the course schedule and on the main “course materials” page. All assignments are due at 11:55 pm Eastern Standard Time (EST) on the date listed.

Late Penalties:
Late individual and team assignments will have 10% of total value deducted for every day that they are late.

Time Commitment for this Course
This course requires *approximately 9 to 12 hours per week.* If you decide to withdraw from the course at any time, please notify Dr. Yeatts (Karin.Yeatts@unc.edu) and your TA.
Course Schedule
Sometimes unexpected events occur (hurricanes, snow storms, power outages, etc.); we reserve the right to modify the syllabus and assignment due dates. Dr. Yeatts will announce any changes via the Sakai announcement function as quickly as possible so that students can adjust their schedules.

Course Assignment Formatting Requirements
Use single space 12 point font Arial with 1" margins. Page length will be indicated in assignment instructions.

Adequate Computer Access and Working Email
Make sure that you have adequate computer access. Check the course Sakai site at least every other day or so for announcements. Email will be sent 2-3 times a week from your TA and professor.

Valuing, Recognizing, and Encouraging Diversity
This class will follow principles of inclusion, respect, tolerance, and acceptance that support the values of diversity.

Course Evaluation
Your constructive feedback on specific modules, class sessions, and assignments is important to us. In each module there is an anonymous feedback survey link. We will have both mid-term and end of course evaluations. The School uses an anonymous on-line evaluation system which opens for a two week period that ends the last day of classes.

Writing Resources for Course Assignments
Writing assistance: The UNC Writing Center provides resources sheets and one-on-one writing assistance. If you are unfamiliar with scientific writing, please review this web resource to better understand the structure and appropriate content.

Citations formatting: In this course, we would like you to use the American Medical Association’s *AMA Manual of Style (10th edition) : A Guide for Authors and Editors* Section 1 Part 3 for formatting references.

Using Wikipedia as a primary reference: We request you NOT use Wikipedia as a primary reference. Please use the online health science resources (such as Pubmed) that you have available to you as part of taking this course.

Plagiarism
Plagiarism is the act of copying or using someone else’s work or writing and presenting it as your own work. While you will use and present information from the peer review literature and official websites, you need to cite the source of that information.

Honor System
As part of the UNC Honor Code, students pledge to maintain ideals of academic honesty, personal integrity, and responsible citizenship. Please review the UNC Honor System and make sure you understand and adhere to these policies in this course.