GEOG 803 Seminar
Geographic and Spatial Approaches in Health and Disease

Spring 2026 Class meets:
Tuesdays 3:30-6:30pm
Classroom: Carolina Hall 321
Instructor: Mike Emch
Email: emch@unc.edu
Office hours: Tuesdays 2-3:15 or by appointment (please email Mike to schedule in advance)
Office: Carolina Hall Room 304

Course Description
This course examines spatial and geographic approaches for investigating health and disease including disease ecology and neighborhoods and health perspectives. Disease ecology will focus on both communicable and non-communicable diseases and environmental and anthropogenic drivers of those diseases as well as upstream determinants of disease and health. We will first read several foundational papers on health and medical geography, disease ecology, neighborhoods & health, and geographic approaches to studying health and healthcare. We will then focus on several diseases and health/healthcare studies that are chosen by students in the class which will involve reading and interrogating empirical papers chosen by the students. The three main class activities include background readings, a journal club and a research project.

Background Readings
Background readings focus on health and medical geography and other geographic approaches for studying health and disease including several chapters from the following two books as well as other papers listed in the course schedule and on Canvas:

1. Health and Medical Geography by Emch, Root, Carrel (ERC)
2. A Companion to Health and Medical Geography edited by Brown, McLafferty, Moon (BMM)

All the readings are on Canvas under Files. Students should read the chapters and papers before class.

Journal Club
In addition to the readings described in the schedule, on Journal Club days, students will choose papers that all students will read before class.

In-class Discussion, Canvas Discussion, and Discussion Lead
Students will each serve as a discussion leader for one of the Background Readings and for one Journal Club paper that they choose. Discussion leaders will develop discussion questions that will be the basis of the initial discussion, first on Canvas and then in class. The discussion leader will need to read the paper(s) for the day at least a week before class and post the discussion question on the Canvas Discussions Board at least a week before the discussion. Other students in the class should respond to the discussion questions on Canvas during the week before the in-class discussion. There are around 13 days during the semester that we will be discussing papers and students should take part in at least 10 discussions on Canvas. During the in-class discussion, the discussion leader will begin with a 10-minute PowerPoint presentation summarizing the paper ending with the list of the discussion questions. Then the class members will discuss the paper(s). On days with more than one paper we will divide the time between the papers.

Research Project: Paper/ Proposal, Presentation, and Class Exercises
Each student will conduct a health geography/ disease ecology project. Students have a choice of either writing a paper or a proposal depending on what is more useful for you in stage of your program. Most weeks we will spend about half of the class time working on and getting feedback for the project. This will be done via four exercises over the course of the semester which will entail working individually out of class, in small groups in

class, and on some days reporting back to the entire class. The class exercise topics are: (1) Project Ideas, (2) Literature Review, (3) Project Data and Methods, and (4) Project Results. Students can work in teams if they like for their class project.

Grading

The course grade is based on the following activities:

- Readings, discussion, and discussion lead: 50%
- Class exercises: building blocks of class project: 25%
- Class project and final presentation: 25%

Schedule

Week: Dates	**Topics, Materials, and Activities**
Week 1: Jan 13	**Introduction** Activities -Introduction and class goals -Meet class members (PPP: professional, personal, peculiar) -Ice breaker (professional speed networking) -Discussion of Part A and B assignment for Week 2 (Part A: Choose health geography/ disease ecology topics; Part B: Choose health geography Journal Club papers) -Discussion of use of AI
Week 2: Jan 20	**Health and Medical Geography: Introduction and History** Class Discussion BMM Chapter 1: Introduction to Health and Medical Geography BMM Chapter 2: Health Geography Discussion Lead Mike Activities Collective exercise on creating the class seminar content (Part A and B assignments discussed Week 1) Create class discussion lead schedule Upload Journal Club papers before class on Week 3 to Canvas
Week 3: Jan 27	**Health and Medical Geography: Background and Debates** Class Discussion BMM Chapter 3: Medical Geography BMM Chapter 4: Doubting Dualisms Discussion Lead Claudia Activities Exercise 1: Project Ideas- small group brainstorming
Week 4: Feb 3	**Health and Medical Geography: History and Background** Class Discussion

	ERC Chapter 1: What Is Health and Medical Geography? BMM Chapter 18: Health Geography and Public Health Discussion Leads Lauren Activities Exercise 1: Project Ideas- small group brainstorming
Week 5: Feb 10	**Neighborhoods and Health** Class Discussion Diez Roux, AV. 2001. "Investigating Neighborhood and Area Effects on Health" *American Journal of Public Health*. 91(11): 1783-89. Oakes, J. Michael. 2004. "The (Mis)Estimation of Neighborhood Effects: Causal Inference in a Practicable Social Epidemiology." *Social Science & Medicine* 58:1929-1952. Discussion Leads Laina Activities Exercise 1: Project Ideas- 5-minute flash talks
Week 6: Feb 17	**Health and Medical Geography: Health Inequalities and Neighborhoods and Health** Class Discussion BMM Chapter 20: Social Perspectives on Health Inequalities BMM Chapter 21: Neighborhoods and Health Discussion Leads Alex Activities Exercise 1: Project Ideas- 5-minute flash talks
Week 7: Feb 24	**Health and Medical Geography: Disease Ecology, Human Ecology, and Political Ecology** Class Discussion ERC Chapter 2: Ecology of Health and Disease ERC Chapter 3: Expanding Disease Ecology: Politics, Economics, Gender Discussion Lead Narmada, Sophia Activities Class Exercise 2- Literature Review (small group elevator speeches summarizing literature for paper)

Week 8: Mar 3	**Disease Ecology 2025 Theory Building** Class Discussion 2025 SJTG annual paper: Emch and Goel, commentaries by McLafferty, Mayer, Oppong, and Paul, and response to commentaries Discussion Lead Sarah Activities Class Exercise 2- Literature Review (5-minute flash talks to class summarizing literature)
Week 9: Mar 10	**Journal Club** Class Discussion Week 9 Journal Club Discussion Leads Claudia & Jenna Activities Class Exercise 2- Literature Review (5-minute flash talks to class summarizing literature)
Week 10: Mar 24	**Journal Club** Class Discussion Week 10 Journal Club Discussion Leads Alex Activities Class Exercise 3- Project Data and Methods (5-minute flash talks to class summarizing your data and methods)
Week 11: Mar 31	**Journal Club** Class Discussion Week 11 Journal Club Discussion Leads Sarah & Lauren Activities Class Exercise 3- Project Data and Methods (5-minute flash talks to class summarizing your data and methods)
Week 12: Apr 7	**Journal Club** Class Discussion Week 12 Journal Club Discussion Lead Laina Activities

	Class Exercise 3- Project Data and Methods (5-minute flash talks to class summarizing your data and methods)
Week 13: Apr 14	**Journal Club** Class Discussion Week 13 Journal Club Discussion Leads Sophia Activities Class Exercise 4- Project Results (5-minute flash talks presenting results)
Week 14: Apr 21	**Journal Club** Class Discussion Week 14 Journal Club Discussion Leads Narmada Activities Class Exercise 4- Project Results (5-minute flash talks presenting results)
Exam Time: May 5: 4-7pm	**Final project presentations** PowerPoint presentation