Course Description and Objectives:
This course examines the geographical dimensions of health and disease, emphasizing global and
domestic public health issues. Key approaches and themes include the human ecology approach
to health; epidemiological mapping and spatial analysis; environmental health; the relationship
among demographic change, economic development, and population health; the spatial diffusion
of infectious diseases; the disease ecology approach to infectious and vector-borne diseases; and
the challenges of “global health” in the 21st century, with special emphasis on “emerging
infectious diseases.”

This course counts for the Geography major, Community and Global Health Concentration,
Social Science distribution requirement, and Internationalism Gen Ed requirement.

Required Readings:
All readings for this course will be available electronically on Moodle.

Course Policies:

1. Attendance and Participation. In this class, 10 percent of your grade derives from
attendance and participation. Attendance plays an essential role in learning, so you are warmly
invited and expected to attend all class meetings. Attendance will be important not only for your
learning, but also for our ability to build a community together and maintain a sense of
connection and commitment to one another. Your presence in class matters. If you will not be in
class for any reason, it is your responsibility to inform me in advance, or as early as possible, via
e-mail. It is also your responsibility to make up work you missed in your absence. Participation is
distinct from attendance and is also an essential part of this course. In-class discussions, on-line
discussion forums, responses to brief ungraded writing assignments, quizzes, etc. will be factored
into your participation grade. In general, “participation” means speaking up, sharing your
thoughts, and making yourself noticed in positive, productive, and supportive ways. It also means
listening carefully and respectfully to your fellow students. It is important to remember that we all
have different styles of expression. If you have not been able to participate in a class discussion for
any reason but want to demonstrate your active engagement, please send me an email after class
with a comment or an idea you had that you would have liked to share, but were not able to
during class. Students with any concerns, questions, or need for consideration for flexibility
should connect with me as soon as possible to determine an appropriate plan.

2. Reaction papers on campus events. You can improve your attendance and participation
grade, and exercise your writing skills frequently, by writing reaction (reflection) papers about
campus events relevant to this class. The reaction papers should be 1-2 pages long. I am interested in a clear summary and a thoughtful critique, ideally one that connects the event to course themes. Please turn in these papers in a Moodle dropbox I will create specifically for this purpose, within a week after the event takes place. I will try to give you feedback within a week. As a general rule of thumb, satisfactorily completing three of these reaction papers during the semester would raise your course participation grade by one letter grade (e.g. from a B to an A).

3. Late work. You must turn in your work on time. I will indicate due dates for every assignment, and you must respect them. Every student has one "free token" to use for turning in an assignment up to 48 hours late, for the whole semester. Assignments where you may use the "token" include the two homework exercises and the three take-home exams. Otherwise, I will penalize you 10 percent of your grade (or a full letter grade) for a given assignment for every day that it is late. Tokens cannot be used for the group project components. For other, extenuating circumstances (e.g. illness, accident, bereavement, religious observance, etc.) and you contact me before the due date, I will consider granting extensions on a case-by-case basis.

4. Turning in written work. I will be using electronic submission for some assignments. For a given assignment, I will create a "dropbox" on Moodle that has a specific time that work is due (and the dropbox then "closes"). Please do not submit assignments via email or as "shared" documents in Google Docs.

5. Academic integrity. As in every course, you will be expected to follow the college's policies on academic honesty: specifically, "Students are expected to maintain the highest standards of honesty in their college work. Forgery, cheating and plagiarism are serious offenses and students found guilty of any form of academic dishonesty are subject to disciplinary action." For more details, see the college's guidelines on Academic Integrity at [http://www.macalester.edu/academicprograms/academicpolicies/academicintegrity/](http://www.macalester.edu/academicprograms/academicpolicies/academicintegrity/).

6. Special accommodations. If you have a physical or learning disability that will require special accommodations, please contact me to discuss arrangements. All conversations will be confidential. You will also need to meet with a representative from Disability Services, which determines accommodations. They can be contacted here: disabilityservices@macalester.edu.

7. Communication. You are welcome to come see me during my scheduled office hours. If you can’t meet during those times, please send me an email or call my office and we’ll schedule an appointment. In general, I answer emails within 24 hours. But I always prefer to discuss important matters in person, not electronically or by phone. Also, make sure that you check your email frequently, because I do send email messages – either from my own email address or via Moodle – frequently to the class.

8. Use of Electronic Devices in Class. Laptops are permitted in class but only for note-taking and for activities in class when specifically indicated. When we are having a lecture, discussion, student project presentation, or similar activity, I expect everyone’s eyes and attention to be focused on that activity. You definitely should not be browsing the web, checking email, doing your homework, and so on during these class activities. The use of cell phones is strictly prohibited: no calling, texting or other uses of your cell phone during class time.

9. Recording Policy. The Macalester College Classroom Recording (MCCR) policy sets forth community expectations regarding the recording (whether audio, video, or streaming) of class lectures, discussions, office hours, and other course-related activity. As an academic community, we value the free exchange of ideas and the privacy of community members. We are also committed to providing appropriate accommodations to students who require recorded lectures as an academic adjustment for documented disabilities. The MCCR policy balances the legitimate uses of classroom recording, the intellectual property of the faculty, and the privacy of individual students and faculty. The entire policy can be found [here](http://www.macalester.edu/academicprograms/academicpolicies/academicintegrity/). In short, the policy requires students to submit a completed Student Recording Agreement to the appropriate office (Disability Services for students with approved accommodations; Academic Programs and Advising for all others).
prior to engaging in any type of recording. The faculty member who signed the Recording Agreement (or is notified by Disability Services that recording will occur as an accommodation) is responsible for notifying the class that recording will be occurring. The required Student Agreement Recording form is available here.

10. Religious Observance. Students may wish to take part in religious observances that occur during this module. If you have a religious observance/practice that conflicts with your participation in the course, please contact me before the end of the first week of the module to discuss appropriate accommodations. In an effort to respect religious diversity, I request that students who desire to observe a religious holiday during a scheduled class meetings/class requirements talk to me about reasonable consideration by the end of the second week of the course.

11. Health and Wellness. You are encouraged to make your health and well-being a priority throughout this semester and during your career at Macalester. Taking care of yourself will help you engage more fully in your academic experience. Remember that beyond being a student, you are a human being carrying your own experiences, thoughts, emotions, and identities with you. It is important to acknowledge any stressors you may be facing, which can be mental, emotional, physical, cultural, financial, etc., and how they can have an impact on your academic experience. I encourage you to remember that you have a body with needs. In the classroom, eat when you are hungry, drink water, use the restroom, and step out if you are upset and need some air. Please do what is necessary so long as it does not impede your or others’ ability to be mentally and emotionally present in the course. Outside of the classroom, sleeping, moving your body, and connecting with others can be strategies to help you be resilient at Macalester. If you are having difficulties maintaining your well-being, please don’t hesitate to contact me and/or find support from Health & Wellness Center. I have included contact information for health and wellness resources on the course Moodle page.

12. Inclusivity. I am committed to providing a safe and equitable learning environment that welcomes and supports everybody. As learners and teachers, we all bring various experiences and life contexts to this course. These differences will emerge in class and be part of what we negotiate and benefit from as a developing community. I acknowledge that academic institutions have evolved within a historical context that privileges certain students over others, and in this classroom, we will do our best to be aware of how these inequities may manifest. I hope you will feel comfortable coming to us to express any concerns or suggestions; this is an iterative process that requires the collaboration of all.

13. Pandemic Business. In this class, we will follow the latest guidelines on the College’s COVID-19 pandemic response. As of this writing (August 29), this means classes will be held in person, not remotely, and face coverings are required in indoor spaces, until Wed., Sept. 14. After that date, our class meetings will be mask-optional (it’s up to you). If the guidelines change, we will adapt accordingly.

Class Format:
In this course there will be a mix of lecture- and discussion-based meetings. My lectures are meant to be interactive and not a one-way monologue, so feel free to ask questions, and expect that I will ask you questions, too. If we are having discussions or scholarly skills workshops in class, I will give you some guidelines ahead of time of what to expect.

Course Assignments:
- **Attendance and Participation:** see above
- **Exercises.** There will be two brief homework exercises on different topics that allow you to apply theory and concepts using interactive maps, databases, and data visualization tools.
- **Exams.** There will be three exams, all take-home format.
• **Research project.** This assignment will allow you to expand on a topic in medical/health geography that interests you. This will be a group project, with both written and oral components. More details TBA.

**Grading:**

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<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Attendance and Participation</td>
<td>10%</td>
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<tr>
<td>Exercise 1</td>
<td>5%</td>
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<tr>
<td>Exercise 2</td>
<td>5%</td>
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<tr>
<td>Exam 1 (take-home)</td>
<td>15%</td>
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<tr>
<td>Exam 2 (take-home)</td>
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<tr>
<td>Exam 3 (take-home)</td>
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<tr>
<td>Exam flex</td>
<td>5%</td>
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<tr>
<td>Research Project (all components combined)</td>
<td>30%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
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Note: "Exam flex" means your highest-scoring exam will be worth 20% instead of 15% of grade

**COURSE SCHEDULE (Detailed):**

Notes: The schedule is subject to change, with fair warning. Check on Moodle for updates about which readings are "required" (REQ), which should be skimmed (SKIM), and which are merely "recommended" (RCM). Generally, try to do the readings for the day they are assigned, even if a more in-depth discussion is not scheduled until a few days later. Rest assured that every week I will give you details about the reading assignment and plan for discussion.

**Week 1. Introduction**

- Wed. (Aug. 31): Introductions and Course Business
  - Fri. (Sept. 2): What is Medical Geography?

**Week 2. Global Health**

- Mon. (Sept. 5): NO CLASS—LABOR DAY
- Wed. (Sept. 7): International Health by the Numbers
  - REQ: "Demographic Transition Model" (ArcGIS StoryMap)
  - SKIM: IHME (2015). Rethinking Development and Health Findings from the Global Burden of Disease Study
- Fri. (Sept. 9): Global Health Governance
Week 3. Global Health / Disease Ecology

- Mon. (Sept. 12): National Health Systems: Lessons from Latin America

- Wed. (Sept. 14): Discussion on International Health
  - Be prepared to discuss readings and lectures for this unit

- Thurs. (Sept. 15):
  - Exercise 1: Demographic and Health Indicators DUE

- Fri. (Sept. 16): Disease Ecology: Introduction

Week 4. Disease Ecology

- Mon. (Sept. 19): Disease Ecology: Malaria, environment, and development
  - REQ: Watch "The Winged Scourge" (video)

- Wed. (Sept. 21): Disease Ecology: Malaria control
  - REQ: Watch "The Winged Scourge" (video)

- Fri. (Sept. 23): Discussion on Disease Ecology
  - Be prepared to discuss readings and lectures for this unit

Week 5. Emerging Infectious Diseases

- Mon. (Sept. 26): NO CLASS
  - Work on take-home exam

- Tues. (Sept. 27)
  - EXAM 1 DUE

- Wed. (Sept. 28): Discuss Final Project

- Fri. (Sept. 30): Emerging Infectious Diseases 1: Emergence
Week 6. Covid-19 Pandemic
- Mon. (Oct. 3): Emerging Infectious Diseases 2: Diffusion
- Wed. (Oct. 5): Emerging Infectious Diseases 3: Covid-19 Pandemic
- Fri. (Oct. 7): Emerging Infectious Diseases: Discussion
  o Be prepared to discuss readings and lectures for this unit

Week 7. Climate Change and Health
- Mon. (Oct. 10): Climate Change and Health: an Introduction
- Tues. (Oct. 11): Final Project: Topic Statement due
- Wed. (Oct. 12): Climate Change and Vector-Borne Disease
- Fri. (Oct. 14): Discussion on Climate Change and Health
  o Be prepared to discuss readings and lectures for this unit

Week 8. Spatial Approaches (begin)
- Mon. (Oct. 17): NO CLASS
  o Work on take-home exam
- Tues. (Oct. 18)
  o EXAM 2 DUE
- Wed. (Oct. 19): Spatial Approaches: Mapping Patterns
- Fri. (Oct. 21): NO CLASS – FALL BREAK
Week 9. Spatial Approaches (cont’d)

- Mon. (Oct. 24): Spatial Approaches: Thinking Spatially About Health
  - REQ: HealthGIS Projects from Spring 2022
- Tues. (Oct. 25): Final Project: groups to be organized by this date
- Wed. (Oct. 26): Spatial Approaches: GIS Lab Activity
  - Meet in GIS Lab – hands-on GIS lab activity
- Fri. (Oct. 28): Discussion on Spatial Approaches
  - Be prepared to discuss readings, lectures, other activities for this unit

Week 10. Social Determinants of Health

- Mon. (Oct. 31): Social Determinants 1: Health Inequalities
- Tues. (Nov. 1): EXERCISE 2 (Mapping and Spatial Analysis) DUE
- Wed. (Nov. 2): Social Determinants 2: Place Effects
  - RCM: *Unnatural Causes: Place Matters* (video)
- Fri. (Nov. 4): Discussion on Social Determinants
  - Be prepared to discuss readings, lectures, other activities for this unit

Week 11. Environmental Health

- Mon. (Nov. 7): Environmental Health 1
- Wed. (Nov. 9): Epidemiology of Cancer Clusters
  - REQ: Readings on Twin Cities East Metro cancer cluster research
  - RCM: *Cape Cod Breast Cancer Study* (skim)
- Fri (Nov. 11): Discussion on Environmental Health
  - Be prepared to discuss readings, lectures, other activities for this unit
Week 12. Environmental Justice
- Mon. (Nov. 14): Environmental Justice
  o Readings TBA
- Tues. (Nov. 15): Final Project: Proposal Due
- Wed. (Nov. 16): Environmental Justice – California case study
  o RCM: EJ Atlas website
- Fri. (Nov. 18): Discussion on Environmental Justice
  o Be prepared to discuss readings, lectures, other activities for this unit

Week 13. Exam 3 and Thanksgiving Break
- Mon. (Nov. 21): NO CLASS
  o Work on take-home exam
- Tues. (Nov. 22): EXAM 3 DUE
- Wed. (Nov. 23) and Fri. (Nov. 25): NO CLASS (THANKSGIVING BREAK)

Week 14. Project Work
- Mon. (Nov. 28): Work on Final Projects (workshop in class)
- Wed. (Nov. 30): Work on Final Projects (workshop in class)
- Fri. (Dec. 2): Work on Final Projects (workshop in class)

Week 15. Oral Presentations
- Mon. (Dec. 5): Oral Presentations on Group Projects (schedule TBD)
- Wed. (Dec. 7): Oral Presentations on Group Projects
- Fri. (Dec. 9): Oral Presentations on Group Projects

Finals Week
- Tues. (Dec. 13): Final Project: Group Paper Due
## COURSE SCHEDULE AT-A-GLANCE

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<thead>
<tr>
<th>1</th>
<th>Monday</th>
<th>Tuesday</th>
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<tr>
<td></td>
<td>29 (August)</td>
<td>30</td>
<td>31 Introduction and Course Business</td>
<td>1 (SEPT)</td>
<td>2 What the Heck is Medical Geography?</td>
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<td>NO CLASS LABOR DAY</td>
<td>6</td>
<td>7 International Health by the Numbers</td>
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<td>9 Global Health Governance</td>
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<td>3</td>
<td>National Health Systems</td>
<td>13</td>
<td>14 Discussion: International Health</td>
<td>15 EXERCISE 1 DUE</td>
<td>16 Disease Ecology 1</td>
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<td>4</td>
<td>Disease Ecology 2</td>
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<td>21 Disease Ecology 3</td>
<td>22</td>
<td>23 Discussion: Disease Ecology</td>
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<td>5</td>
<td>NO CLASS Work on take-home exam</td>
<td>27 EXAM 1 DUE</td>
<td>28 Discuss Final Project</td>
<td>29</td>
<td>30 Emerging Infectious Diseases 1</td>
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<td>6</td>
<td>3 (OCT) Emerging Infectious Diseases 2</td>
<td>4</td>
<td>5 EIDS 3: Covid-19 Pandemic</td>
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<td>7 EIDS: Discussion</td>
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<td>7</td>
<td>Climate Change and Health 1</td>
<td>11 Final project: topic statement</td>
<td>12 Climate Change and Health 2</td>
<td>13</td>
<td>14 Discussion Climate Change and Health</td>
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<td>8</td>
<td>NO CLASS Work on take-home exam</td>
<td>18 EXAM 2 DUE</td>
<td>19 Spatial Approaches 1</td>
<td>20 NO CLASS FALL BREAK</td>
<td>21 NO CLASS FALL BREAK</td>
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<td>9</td>
<td>Spatial Approaches 2</td>
<td>25 Final project: organize groups</td>
<td>26 GIS Lab Activity</td>
<td>27</td>
<td>28 Discussion: Spatial Approaches</td>
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<td>Week</td>
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<td>31 Social Determinants of Health 1</td>
<td>1 (NOV) EXERCISE 2 DUE</td>
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<td>12</td>
<td>14 Environmental Justice</td>
<td>15 Final project: proposal due</td>
<td>16 Environmental Justice</td>
<td>17</td>
<td>18 Discussion: Environmental Justice</td>
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<tr>
<td>13</td>
<td>21 NO CLASS Work on take-home exam</td>
<td>22 EXAM 3 DUE</td>
<td>23 THANKSGIVING BREAK</td>
<td>24 THANKSGIVING BREAK</td>
<td>25 THANKSGIVING BREAK</td>
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<td>14</td>
<td>28 Work on final projects</td>
<td>29</td>
<td>30 Work on final projects</td>
<td>1 (DEC) Final project: working bibliography due</td>
<td>2 Work on final projects</td>
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<td>9 Oral Presentations</td>
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<tr>
<td>16</td>
<td>12 Study Day</td>
<td>13 Final project: final group paper due</td>
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