

**PHP 1725 Rural Environmental Health in Context
 BIO242 Environmental Science in Context + BIO452 Directed Study
 Spring Semester, 2024**

Instructor	Erica D Walker, MSc, ScD RGSS Assistant Professor of Epidemiology 121 S. Main Street, Room 226 [email redacted]
Office Hours	TBA
Teaching Assistant	TBA
Teaching Assistant Office Hours	TBA
Class Location	<u>Brown University:</u> TBA <u>Tougaloo College:</u> Classes will meet virtually via Zoom. There will be 3 in-person classes, and these will meet at Sarah Dickey Lab
Class Hours	<u>Brown University:</u> Class will meet in-person on Wednesday from 4:00 to 6:30 pm EST. <u>Tougaloo College:</u> Class will meet via zoom from 3 to 5:50 CST.
Zoom Link for ALL classes (for Tougaloo College)	https://brown.zoom.us/my/erica.walker2024

Prerequisites

Brown Prerequisites: This course is open to junior and senior undergraduates in addition to master's and doctoral public health students. To enroll in PHP 1725, Brown undergraduates are required to have completed Introduction to Public Health (PHP 0320) and Essentials of Data Analysis (PHP 1501) and MPH students are required to have completed Biostatistics & Applied Data Analysis I (PHP 2507) or Principles of Biostatistics & Data Analysis (PHP 2510).

Tougaloo Prerequisites: This course is open to sophomores, juniors, and seniors. To enroll in PHP BIO242, students are required to have completed BIO112 and MAT208 or are taking MAT208, concurrently.

Course Description: This course will explore public health in rural communities with a particular focus on environmental determinants of health. It will be anchored by a research project in which class members will work together on an environmental health topic in a rural setting. The overarching goals of this class are to provide students with a solid basis for understanding public health issues in rural settings and how to carry out thoughtful and impactful environmental health studies in rural communities.

For the Spring 2024 semester, the students from Brown University and Tougaloo College who comprise the course will collaborate on a study to examine the relationship between air quality and respiratory health in Gloster, Mississippi, a rural community of 897 people. Home to one of the world's largest wood pellet manufacturers, Gloster suffers from high levels of air and noise pollution.

Experiential learning is a central feature of the course. There is currently a Brown University research team on the ground in Gloster, MS, collecting air, noise, and water pollution data. While Brown

University students enrolled in this course will NOT be traveling to Mississippi to collect data, (1) we will work closely with this data, the research field team, and the residents of Gloster to design and develop a semester-long research project with 3 key community deliverables; (2) at the end of the semester, we will hold a virtual community meeting sharing the results of our deliverables; (3) Tougaloo students enrolled in this course will have the opportunity to gain hands-on experience measuring air and noise pollution in Mississippi.

There are three community deliverables to be created in this class: (1) helping us to prepare for and run a children’s respiratory event in Gloster; (2) hold a one-hour community event to inform the Gloster community of our findings this semester; (3) write an article summarizing your data collection efforts this semester to be submitted to either the Clarion Ledger, Mississippi Free Press, or the Jackson Advocate.

Learning Outcomes: The School of Public Health’s accrediting body, the Council on Education for Public Health (CEPH), specifies the domains in which all undergraduates in accredited programs are to receive instruction. The Brown SPH faculty designate the courses in which each domain will be introduced and those in which each will be covered in more depth. This course comprises the domains associated with the Public Health concentration’s Environmental Health & Policy course requirement. As part of Public Health concentration’s Environmental Health & Policy course group, “Rural Environmental Health in Context” will introduce students to the following public health domains:

Domain	Teaching Activity
Societal Functions of Public Health	Lecture 1/24
Evidence-Based Approaches	Lecture 1/31
Introduction to Processes and Approaches to Identify Needs and Concerns of Populations	Lecture 2/14
Introduction to Approaches and Interventions to Address Needs and Concerns of Populations	Lecture 2/14
Science of Human Health & Disease	Lecture 1/31
Socio-Economic Impacts on Human Health and Health Disparities	Lecture 1/31
Governmental Agency Roles in Health Care and Public Health Policy	Lecture 2/14

As part of Public Health concentration’s Environmental Health & Policy course group, “Rural Environmental Health in Context” will cover the following public health domains:

Domain	Teaching Activity
Biological Factors Impacts on Human Health & Health Disparities	Lectures on 1/31, 2/14, 2/21, 2/28, 3/6, 4/10; Assignment 1 and 2
Environmental Factors Impacts on Human Health & Health Disparities	Lectures on 1/31, 2/14, 2/21, 2/28, 3/6, 3/13, 3/20, 4/3, 4/10, 4/17; Assignment 1 and 2

In addition to teaching CEPH domains, the course has a number of learning objectives, which are as follows:

Learning Objective	Assessment Activity
By the end of this course, students should be able to do the following:	Students will demonstrate their achievement of the learning objective in the following assignment:
Identify an environmental health issue in a rural setting linking an environmental exposure to a health outcome using previous epidemiological literature, a toxicokinetic model and a directed acyclic graph.	Assignment 1 and 2
Analyze and visualize environmental exposure data and compare across communities, against local, state, and federal regulations, and hypothesize community public health impacts using existing literature.	Assignment 3 and 4
Write up an environmental health report, which includes a definition of the problem, study area, and populations impacted; a detailed exposure assessment plan; statistical analysis, results, conclusions; strengths and limitations.	Assignment 5 and Environmental Exposure Assessment Research Writeup
Present exposure assessment findings to the local public, answer questions, and provide a community report.	Community Meeting

Format

Brown University Students: We will meet for a total of 14 classes throughout the semester. Each class will consist of a lecture, discussion, and a data studio. The course will be held in a classroom on Brown University's campus.

Tougaloo College Students: We will meet for a total of 14 classes throughout the semester. Each class will consist of a lecture, discussion, and a data studio. The course will be held in a classroom on Brown University's campus and live streamed to Tougaloo College students via Zoom.

For 2-3 courses in the Spring, Dr. Walker will travel to Tougaloo college and will hold live courses in a classroom on Tougaloo's campus. Brown University students will meet at the same time and will interact with the course virtually using Zoom.

Required Materials

Reading: The required text for this course is *Foundations of rural public health in America*, 1st edition (2021), by Joseph N. Inungu and Mark J. Minelli. As of 09/11/2021, this text was available on Amazon for \$78 - \$80 (used or new) Other required readings can be accessed free of charge on Canvas. All readings should be done prior to class.

Software: We will use ArcGIS for mapping and spatial data collection and Microsoft Office Suite for presentations (PowerPoint), word processing (Word), data management (Excel), and simple data analysis (Excel). More sophisticated statistical analyses will be conducted using either R. The instructor will provide you with all relevant basic codes in R, SAS and STATA. All of these software

packages are available to you as a Brown student free of charge. To access this software, visit here: <https://www.brown.edu/information-technology/software/>

If your Brown undergraduate financial aid package includes the Book/Course Material Support Pilot Program (BCMS), concerns or questions about the cost of books and course materials for this or any other Brown course can be addressed to bcms@brown.edu. For all other concerns related to non-tuition course-related expenses, whether or not your Brown undergraduate financial aid package includes BCMS, Brown undergraduates should visit the Academic Emergency Fund in E-GAP (within the umbrella of "E-Gap Funds" in UFunds) to determine options for financing these costs, while ensuring your privacy.

For Tougaloo College Students: You are not required to download ArcGIS on your computer. For any ArcGIS needs required for the course, Dr. Walker will make available to you all a research study laptop that you can use.

Course-Related Work and Time Expectations

For Brown Students: Over the semester, you will spend 2.5 hours per week in class (35 hours total). You will spend an average of 5 hours per week doing the required readings (70 hours total). The written assignments (along with data analysis) will take approximately 5 hours per week (70 hours total) to complete, as long as you work consistently throughout the semester. The community meeting planning and meeting will take one hour (5-hours total). In total, this course will take approximately 180 hours.

For Tougaloo Students: Over the semester, you will spend 2.5 hours per week in class (35 hours total). You will spend an average of 5 hours per week doing the required readings (70 hours total). The written assignments (along with data analysis) will take approximately 5 hours per week (70 hours total) to complete. Included within the weekly hours spent reading required materials and completing your written assignments, you are expected to meet with the course mentor. You will also meet with your course mentor. The community meeting planning and meeting will take one hour (5-hours total).

Accessibility and Accommodations

Brown University is committed to the full inclusion of all students. Please inform me early in the term if you require accommodation or modification of any of the course procedures. You can speak with me after class, during office hours, or by appointment. If you need accommodations around online learning or in classroom accommodations, please be sure to reach out to Student Accessibility Services (SAS) for their assistance (seas@brown.edu, 401-863-9588). Students in need of short-term academic advice or support can contact one of the academic deans in the College.

Academic Integrity

Plagiarism will not be tolerated in this course. Plagiarism occurs when you deliberately use someone else's language, ideas, or other original material without acknowledging its source. This includes carelessly or inadequately citing ideas and words from another source, including paraphrasing without credit. Plagiarism also includes submitting an assignment written by someone else, working with other students if the assignment does not specifically give you permission to do so, or using artificial intelligence without instructor permission or attribution/citation. Ethical research requires properly documenting the sources used even when not directly quoting from another person's or AI's

work. If your ideas were influenced by reading another source, the authors of that source, including ChatGPT or other AI platform, should be properly credited. If you have any questions about how to cite others' work, please speak to me. Brown students should review additional information about offenses against Brown University's academic code at [Academic Code](#) (p. 5). Tougaloo College students should review the academic code [here](#).

Diversity Statement

It is my intention that all students, regardless of their background or perspectives, be served by this course. Furthermore, I hope to foster a climate in which diversity is valued. To that end, I intend to present materials and design activities that respect people's differences, including, but not limited to, those based on age, nationality, physical ability, race, ethnicity, gender identity, sexual orientation, socio-economic background, or university affiliation. To that end, I invite you to share with me your suggestions for how I and your classmates can better support any students who may feel inhibited from contributing fully to the class as a learning community.

Class Recording and Distribution of Materials

All classes will be recorded and will be available on the course's Canvas site immediately after class. As you may know, lectures and other course materials are copyrighted. Students are prohibited from reproducing, making copies, publicly displaying, selling, or otherwise distributing the recordings or transcripts of the materials. Disregard of Brown University's copyright policy and federal copyright law is a Brown Student Code of Conduct violation.

Evaluation and Description of Activities

Graded Activities		% of Grade	Due Date*
Class Participation and Community Engagement			
Class Participation: Class participation will be based on your attendance, active contribution to class discussions/activities, and completing activities related to our community engagement activities. Please let me know in advance if any of our class meetings conflict with your religious observances.		10%	N/A
Final Community Deliverable: As a class, we will host a one-hour community meeting (online) in which the class will deliver a 20-minute presentation followed by a question-and-answer session.		15%	TBD
Course Assignments			
Environmental Exposure Assessment Assignments	Assignment 1: Introduction	12%	2/7
	Assignment 2: DAG exercise	12%	2/28
	Assignment 3: Data Analysis I	12%	4/10
	Assignment 4: Data Analysis II	12%	4/17
	Assignment 5: Discussion, Strengths, & Limitations	12%	4/24
Final Writeup			
Environmental Exposure Assessment Research Writeup		15%	5/1
*Late assignments will not be accepted unless approved in advance.			

Class Participation and Community Engagement (25%)

In this class, class participation is not just showing up each Wednesday. It also means being actively involved in the community that we are serving, given that our class will produce 3 community deliverables. After the first class, each of you will receive a class participation and community engagement checklist that will need to be completed by the end of the semester.

For Brown University Students

- Assistance with planning our community spirometry event.
- Assistance with writing our final article.

For Tougaloo College Students

- Assistance with planning our community spirometry event.
- Assistance with writing our final article.
- Working with our Jackson office to gain hands-on field experience EACH one of you will:
 - Measure sound levels at 12 sites in Jackson, Mississippi, throughout the semester.
 - Put up and breakdown 1 air pollution site in Jackson, Mississippi.
 - Participate in one health-study visit in Jackson, Mississippi.

Final Community Deliverable: As a class, we will present key findings from our semester-long project at a community meeting at the end of the semester. This meeting will be open to Gloster residents and other residents living in communities impacted by wood pellet production. A meeting time will be developed in conjunction with the class and our community partners in Gloster, MS. At the meeting, the instructor will introduce and conclude the meeting and students will each create one-slide to summarize their key findings. After the presentation, local community members will be invited to ask questions. Students will be required to attend the community meeting. The final community meeting will run for one-hour. No more than 30 minutes will be allotted for the presentation, which will be followed by audience Q&A to run no more than 30 minutes. We will also prepare a final article summarizing our work to be submitted for publication in a local newspaper.

Environmental Exposure Assessment Assignments (60%)

To gain hands-on experience in environmental exposure assessment, students in the class will work on an environmental project throughout the semester. Each student will work in groups. The project will be broken down into the following components:

Assignment 1- Introduction: Student groups will design an individualized project using data previously collected in Gloster, MS. Groups will describe their study area, pick a pollutant and respiratory health outcome, and conduct a literature review (at least 8 – 10 references) to support their research question.

Assignment 2 – Directed Acyclic Graph (DAG) exercise: Students will take a deeper dive into their environmental exposure and health outcomes from their semester projects by proposing and detailing a toxicokinetic model and a DAG to highlight the exposure-to-outcome pathway.

Assignment 3 – Data Analysis I: Using tools learned from in-class Data Studios, students will analyze their pollutant data and contextualize it with current literature, county-level data, and local/state/federal regulations.

Assignment 4 – Data Analysis II: Using tools learned from in-class Data Studios, students will visualize their pollutant data contextualize it with their health outcome.

Assignment 5 – Discussion, Strengths, and Limitations: Students will discuss their findings, contextualize their findings, detail the strengths and limitations of their analysis, and compare with existing literature.

Environmental Exposure Assessment Research Writeup: At the end of the semester, students will synthesize their work throughout the semester into a BRIEF report and/or visualization that can be shared with the wider public. Specifics will follow in April. However, this brief writeup will be used to inform your FINAL COMMUNITY DELIVERABLES.

Additional Help with the Course:

If you have a question regarding the course, assignments, or grades, I encourage you to first check the syllabus or course website because answers to many questions can be found there. If you don't find an answer, please reach out to me. You can email me your question, come to my office hours, or arrange another time when we can meet.

TENTATIVE Detailed Course Schedule

Please note that because this is a very hands-on course (and my first time teaching this type of course), our syllabus is TENTATIVE. It will most likely change. I will let you know well in advance of the changes that make take place.

Class	Date	Topic	Assignment Due Dates
JANUARY			
Class 0 (Part 1)	1/10	<p>READING</p> <ul style="list-style-type: none"> Background reading on Gloster, MS. Assignment: In one page, write about what you would like to contribute to this community, via this course. 	For TOUGALOO COLLEGE students only
Class 0 (Part 2)	1/17	<p>PRE-INTRODUCTIONS</p> <ul style="list-style-type: none"> Tougaloo College student will sign on to our course ZOOM to meet with Dr. Walker to discuss the assignment and troubleshoot through issues. 	For TOUGALOO COLLEGE students only
Class 1	1/24	<p>INTRODUCTIONS</p> <ul style="list-style-type: none"> Course Introduction (meet each other, review syllabus, answer questions) Introduction to Rural Environmental Health <ul style="list-style-type: none"> Local and Global Perspectives Introduction to Gloster, Mississippi Introduction to Community Noise Lab's work in Gloster Guest Speakers: Dr. Kay Martin (Kay Martin Group); Dr. Cristina Nica Brief introduction to our semester project <p>DATA STUDIO</p> <ul style="list-style-type: none"> Mississippi County Map and dataset. Amite County (Location of Gloster, MS) 	Assignment 0: Pick your pollutant group (PM2.5, O ₃ , NO ₂ , Sound, Meteorological Conditions, Indoor PM, Spatial Mapping)

Class	Date	Topic	Assignment Due Dates
		<u>Readings:</u> Inungu and Minelli, Chapter 1, Defining Rurality.	
Class 2	1/31	<p style="text-align: center;">ENVIRONMENTAL AND OCCUPATIONAL EPIDEMIOLOGICAL STUDY DESIGN IN A RURAL SETTING</p> <p>Lens: <i>Poultry Farming</i></p> <ul style="list-style-type: none"> • Introduction to environmental and occupational epidemiology. • The types of study designs in environmental and occupational epidemiological research in rural settings and their strengths and limitations. • Confounding, effect modifiers, mediators. <p style="text-align: center;">DATA STUDIO</p> <ul style="list-style-type: none"> • DAGS crash course • Mississippi County Map and dataset. <ul style="list-style-type: none"> ○ Map of poultry plants and farms by county. ○ Where does Gloster, MS stand? <p><u>Readings:</u> Casey, J. A., Kim, B. F., Larsen, J., Price, L. B., & Nachman, K. E. (2015). Industrial food animal production and community health. <i>Current environmental health reports</i>, 2, 259-271.</p> <p>Quandt, S. A., Grzywacz, J. G., Marin, A., Carrillo, L., Coates, M. L., Burke, B., & Arcury, T. A. (2006). Illnesses and injuries reported by Latino poultry workers in western North Carolina. <i>American journal of industrial medicine</i>, 49(5), 343-351.</p> <p>Lipscomb, H. J., Argue, R., McDonald, M. A., Dement, J. M., Epling, C. A., James, T., ... & Loomis, D. (2005). Exploration of work and health disparities among black women employed in poultry processing in the rural south. <i>Environmental Health Perspectives</i>, 113(12), 1833-1840.</p> <p>Horton, R. A., & Lipscomb, H. J. (2011). Depressive symptoms in women working in a poultry-processing plant: A longitudinal analysis. <i>American journal of industrial medicine</i>, 54(10), 791-799.</p>	
FEBRUARY			
Class 3	2/7	<p style="text-align: center;">UNDERSTANDING YOUR EXPOSURE - INTRODUCTION TO FIELD WORK</p> <ul style="list-style-type: none"> • Understanding environmental issues in rural settings. • Understanding environmental issues in Gloster, MS. <ul style="list-style-type: none"> ○ Your semester project (more details). • Introduction to exposure assessments <ul style="list-style-type: none"> ○ Definition of exposure assessments 	

Class	Date	Topic	Assignment Due Dates
		<ul style="list-style-type: none"> ○ Key elements of an exposure assessment ● Detailing your exposure assessment of air and sound pollution in Gloster, MS. ● Brief introduction to Toxicokinetic models <p style="text-align: center;">DATA STUDIO</p> <ul style="list-style-type: none"> ● Geocoding: how to do it, why it is important, and its power and beauty. <p><i>Readings:</i> Frumkin, Chapter 8, Exposure Science, Industrial Hygiene, and Exposure Assessment. (To be made available on Canvas)</p>	
Class 4	2/14	<p style="text-align: center;">AIR AND SOUND POLLUTION</p> <p>Lens: <i>The industrial presence in rural communities</i></p> <ul style="list-style-type: none"> ● Industrial pollution (ambient to indoor) ● Fate and transport into the community ● Local, state, and federal regulations ● Environmental justice <p style="text-align: center;">DATA STUDIO</p> <ul style="list-style-type: none"> ● Understanding the air, sound, and climate data collected in Gloster, MS to date. <ul style="list-style-type: none"> ○ What is missing? ● Understanding air quality for all Mississippi Counties. Where does Gloster stand? ● Data Collection: Using additional sources such as the US Census, the EPA, and other sources to gather information on rural communities. <p><i>Readings:</i> Inungu and Minelli, Chapter 13, Environmental Health in Rural Regions of the United States</p>	Assignment 1: Introduction - detail your exposure, detail your health outcome, with a bibliography of relevant studies.
Class 5	2/21	<p style="text-align: center;">CARDIOVASCULAR AND RESPIRATORY DISEASE IN RURAL AMERICA -AIR AND SOUND POLLUTION EDITION</p> <ul style="list-style-type: none"> ● Toxicokinetic models ● The epidemiology ● Cardiovascular and respiratory disease in Mississippi ● Cardiovascular and respiratory disease in Gloster ● The Gloster, MS Asthma Map <p>Guest Speakers: <i>Asthma Mapping in Rural Communities:</i> Toni Holloway</p> <p style="text-align: center;">DATA STUDIO</p> <ul style="list-style-type: none"> ● Understanding cardiovascular health in Mississippi. Where does Gloster, MS Stand? 	

Class	Date	Topic	Assignment Due Dates
		<i>Readings:</i> See Class Announcements	
Class 6	2/28	<p align="center">CANCER IN RURAL AMERICA</p> <p>Lens: <i>Cancer Alley</i></p> <ul style="list-style-type: none"> • Toxicokinetic models of cancer • Introducing cancer alley <p align="center">DATA STUDIO</p> <ul style="list-style-type: none"> • Understanding cancer rates in Mississippi. Where does Gloster, MS stand? <p><i>Readings:</i> Inungu and Minelli, Chapter 13, Environmental Health in Rural Regions of the United States.</p> <p>Singer, M. (2011). Down cancer alley: the lived experience of health and environmental suffering in Louisiana's chemical corridor. <i>Medical Anthropology Quarterly</i>, 25(2), 141-163.</p> <p>Castellón, I. G. (2021). Cancer alley and the fight against environmental racism. <i>Vill. Evtl. LJ</i>, 32, 15.</p>	
MARCH			
Class 7	3/6	<p align="center">THE DOLLAR GENERAL DILEMA: NUTRITION AND FOOD INSECURITY IN RURAL AMERICA</p> <p>Lens: <i>Obesity, physical activity, and Type 2 Diabetes across the life course.</i></p> <ul style="list-style-type: none"> • Nutrition, physical activity, and food insecurity overall and in rural America. • Toxicokinetic models • Focus on maternal health, child health, adolescent health, and the health of aging populations. <p align="center">DATA STUDIO</p> <ul style="list-style-type: none"> • The county connection: An ecological analysis exploring the relationship between dollar stores and health outcomes in Mississippi. <ul style="list-style-type: none"> ○ Where does Gloster stand? <p><i>Readings:</i> Inungu and Minelli, Chapter 9, Nutrition, Food Status, and Weight Status.</p>	Assignment 2: Defining your exposure and health outcome using a toxicokinetic model and DAG.
Class 8	3/13	<p align="center">WATER AND SOIL QUALITY</p> <p>Lens: <i>Illegal dumping in rural communities</i></p> <ul style="list-style-type: none"> • What is illegal dumping? • Fate and transport into the community • Local, state, and federal regulations • International Example <p align="center">DATA STUDIO</p> <ul style="list-style-type: none"> • Illegal dumping report card: mapping illegal dumping sites by county. 	

Class	Date	Topic	Assignment Due Dates
		<p>Guest Lecture: Arlencia Barnes, Jackson State University</p> <p><u>Readings:</u> da Paz, D. H. F., Lafayette, K. P. V., Holanda, M. J. D. O., Sobral, M. D. C. M., & Costa, L. A. R. D. C. (2020). Assessment of environmental impact risks arising from the illegal dumping of construction waste in Brazil. <i>Environment, Development and Sustainability</i>, 22, 2289-2304.</p> <p>Du, L., Xu, H., & Zuo, J. (2021). Status quo of illegal dumping research: Way forward. <i>Journal of Environmental Management</i>, 290, 112601.</p> <p>Mazza, A., Piscitelli, P., Neglia, C., Rosa, G. D., & Iannuzzi, L. (2015). Illegal dumping of toxic waste and its effect on human health in Campania, Italy. <i>International journal of environmental research and public health</i>, 12(6), 6818-6831.</p>	
Class 9	3/20	<p style="text-align: center;">CLIMATE CHANGE</p> <p>Lens: <i>Shrimping in the Mississippi Gulf Coast</i></p> <ul style="list-style-type: none"> • Climate change primer • Climate change and health impacts • History of shrimp boat farming in Gulf of Mexico • State of shrimping in Gulf of Mexico. <p><u>Readings:</u> Burkett, V. R. (2002). Potential impacts of climate change and variability on transportation in the Gulf Coast/Mississippi Delta region. The potential impacts of climate change on transportation, 103.</p> <p>Becker, A., & Caldwell, M. R. (2015). Stakeholder perceptions of seaport resilience strategies: A case study of Gulfport (Mississippi) and Providence (Rhode Island). <i>Coastal Management</i>, 43(1), 1-34.</p> <p style="text-align: center;">DATA STUDIO</p> <ul style="list-style-type: none"> • Working on semester projects 	
APRIL			
Class 10	4/3	<p style="text-align: center;">QUALITATIVE DATA COLLECTION</p> <p>Lens: Environmental Justice and Environmental Racism</p> <ul style="list-style-type: none"> • Introduction to qualitative data collection • Qualitative data collection strategies in rural settings. • Storytelling • The role of perception and its impact on individual, community, and public health <p style="text-align: center;">COMMUNITY ENGAGEMENT</p> <ul style="list-style-type: none"> • Introduction to <i>meaningful</i> community engagement in a rural setting 	

Class	Date	Topic	Assignment Due Dates
		<ul style="list-style-type: none"> Community deliverables Public health communication and translation <p style="text-align: center;">PUBLIC HEALTH COMMUNICATION</p> <p><u>Readings:</u> Frumkin, Chapter 28, Communicating Environmental Health</p> <p>Shirk, J. L., Ballard, H. L., Wilderman, C. C., Phillips, T., Wiggins, A., Jordan, R., ... & Bonney, R. (2012). Public participation in scientific research: a framework for deliberate design. <i>Ecology and society</i>, 17(2).</p> <p>Minkler, M. (2005). Community-based research partnerships: challenges and opportunities. <i>Journal of urban health</i>, 82(2), ii3-ii12.</p> <p>Khoa, B. T., Hung, B. P., & Hejsalem-Brahmi, M. (2023). Qualitative research in social sciences: data collection, data analysis and report writing. <i>International Journal of Public Sector Performance Management</i>, 12(1-2), 187-209.</p> <p style="text-align: center;">DATA STUDIO</p> <ul style="list-style-type: none"> Designing the framework for our community final deliverable and meeting. 	
Class 11	4/10	<p style="text-align: center;">MENTAL HEALTH AND WELL-BEING IN RURAL AMERICA</p> <p>Lens: <i>The opioid epidemic in rural America</i></p> <ul style="list-style-type: none"> Mental health issues in rural America, its factors and sources, and community impacts. “Toxicokinetic” models <p><u>Readings:</u> Inungu and Minelli, Chapter 15, Mental Health in Rural America</p> <p style="text-align: center;">DATA STUDIO</p> <ul style="list-style-type: none"> Mental health and well-being in Mississippi 	Assignment 3: Your data analysis Part 1.
Class 12	4/17	<p style="text-align: center;">RACISM, POLITICS, AND ECONOMICS</p> <p>Lens: <i>The Jackson Water Crisis</i></p> <ul style="list-style-type: none"> Understanding environmental racism, politics, and economics in rural communities <p style="text-align: center;">DATA STUDIO</p> <ul style="list-style-type: none"> The Jackson Water Crisis <p><u>Readings:</u> Bentlyewski, R. L., & Juhn, M. (2020). <i>Race, Place, and Pollution: The Deep Roots of</i></p>	Assignment 4: Your data analysis Part 2.

Class	Date	Topic	Assignment Due Dates
		<p>Environmental Racism. Fordham L. Rev. Online, 89, 74.</p> <p>Kim, M., De Vito, R., Duarte, F., Tieskens, K., Luna, M., Salazar-Miranda, A., ... & Walker, E. D. (2023). Boil water alerts and their impact on the unexcused absence rate in public schools in Jackson, Mississippi. <i>Nature Water</i>, 1(4), 359-369.</p> <p>Pulido, L. (2016). Flint, environmental racism, and racial capitalism. <i>Capitalism Nature Socialism</i>, 27(3), 1-16.</p>	
Class 13	4/24	<p>DATA ANALYSIS AND WRITING STUDIO</p> <ul style="list-style-type: none"> Groups will finalize their semester projects, in class. 	Assignment 5: Discussion due
MAY			
Class 14	5/1	FINAL DELIVERABLES DUE	FINAL REPORT DUE
To be announced		<p>COMMUNITY PRESENTATION</p> <p>May 2, 2024, from 6 – 7:15 PM EST (5 – 6:15 CST)</p>	