

PHE 244 : INTRODUCTION TO HUMAN & PLANETARY HEALTH

Transcript title

Intro Human Planetary Health

Credits

4

Grading mode

Standard letter grades

Total contact hours

60

Lecture hours

30

Lab hours

30

Recommended preparation

PHE 100.

Course Description

Introduces the planetary health paradigm highlighting the intricate connections between human health and natural environmental systems. Explores the basic sciences of natural processes, including climate change, biodiversity loss, and pollution, alongside the social and biological impact on human health. Students will engage in data analysis, hypothesis formulation, and evidence-based problem-solving to develop innovative solutions for global health challenges, sustainable futures, and community health.

Course learning outcomes

1. Analyze the impact of global environmental changes such as climate change, biodiversity loss, and pollution on human health and well-being.
2. Draw evidence-based conclusions using empirical data and scientific methods about the relationships between environmental factors and human health outcomes.
3. Evaluate the societal implications of scientific findings in planetary and human health.
4. Explain the relationship between human behavior and health.
5. Generate questions regarding ideas, models, and solutions by interpreting scientific and technical information.
6. Sustainability outcome: Analyze the major environmental, social, and economic challenges and potential solutions of our time using a systems thinking approach.

Content outline

1. Scientific Foundations: Natural Science Concepts in Planetary Health lab assignment
2. Scientific Method and Critical Thinking in Health Research- Examining Climate Change
3. Science and Society: Health Equity, Environmental Racism, and Policy

4. Examining the heat patterns of urban housing and the history of Environmental Health and waste management
5. Principles of Planetary Health and Human-Nature Interdependence
6. Climate Change and Health: Vector Shifts and Disease Modeling
7. Pollution, Water Systems, and Disease Transmission
8. Biodiversity, Land-Use Change, and Zoonotic Spillover
9. Data Science in Health: Genomics, Surveillance, and Open Data
10. War, Displacement, and Environmental Health Crises
11. Synthesis and Student Symposium: Integrating Planetary Health Themes – Present projects either poster project or blog presentation

Required materials

May have required materials, refer to the course syllabus for details.

General education/Related instruction lists

- Science Lab
- Health