

# CLIMATE AND HEALTH, CERTIFICATE

## OVERVIEW

Climate change represents one of the most pressing issues of our time, affecting every nation and person. This certificate program covers climate change, its effects on public health, and ways to mitigate the impacts. Courses explore the effects of energy production and climate change on food, water, air, and human health through the lens of social justice.

## EDUCATIONAL OBJECTIVES

Students completing the certificate program will be able to:

1. Explain the connection between climate and public health, ranging from temperature-related mortality and increasing rates of disease to mass migration, food and water shortages, and the resulting conflict
2. Describe policies and practices in the US and around the world addressing the impact of climate change on health
3. Summarize the role of various sectors (government, private, and non-profit) in addressing climate change's impact on public health
4. Distinguish between climate-related risks in developed countries and those in low- and middle-income countries
5. Evaluate research related to climate change and health
6. Discuss and predict how climate change will affect economics and social structures, including inequities in the risks and benefits associated with climate change
7. Develop and discuss strategies that effectively mitigate and prevent adverse health effects caused by climate change.

## Sponsoring Department

Environmental Health and Engineering (<https://publichealth.jhu.edu/departments/environmental-health-and-engineering/>)

## ADMISSIONS

Contact information and complete admissions information are available on the certificate program page (<https://publichealth.jhu.edu/academics/climate-and-health-certificate-program/>) on the Bloomberg School of Public Health website.

## REQUIREMENTS FOR SUCCESSFUL COMPLETION

The certificate program requires a minimum of 18 term credits. All required and elective courses must be taken for a letter grade; a minimum grade of C is required in all certificate coursework and students must maintain a 2.75 or better overall GPA for all certificate coursework. The certificate program length is flexible; however, the certificate must be completed within three years.

The student should review the section of the Bloomberg School of Public Health website that addresses completion (<https://publichealth.jhu.edu/academics/certificate-programs/requirements-for-successful-completion-of-a-certificate-program/>) before completing certificate program requirements. The student's transcript will not indicate that the certificate

was earned until the Notification of Completion has been submitted, verified by the certificate program, and processed by the Registrar.

## COURSE OF STUDY

Students should check the Bloomberg School of Public Health course directory (<https://www.jhsph.edu/courses/>) to confirm when and where the courses are offered. Students should also check prerequisites and whether instructor consent is required.

| Code                                                                                         | Title                                                                                                                                                                                                                    | Credits |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| PH.550.860                                                                                   | Academic & Research Ethics at BSPH (All students are required to complete this noncredit online course in their first term of study)                                                                                     |         |
| <i>The following 2 courses are required</i>                                                  |                                                                                                                                                                                                                          |         |
| PH.180.651                                                                                   | Energy, Environment, and Public Health (typically offered onsite in 3rd term)                                                                                                                                            | 2       |
| PH.317.600                                                                                   | Introduction to the Risk Sciences and Public Policy (typically offered onsite in 1st term, online in 3rd term)                                                                                                           | 4       |
| Required: Take one of the following 2 courses:                                               |                                                                                                                                                                                                                          |         |
| PH.180.602                                                                                   | Environment and Health in Low and Middle income Countries (typically offered onsite and online in 3rd term)                                                                                                              | 2       |
| PH.182.626                                                                                   | Issues for Water and Sanitation in Tropical Environmental Health (typically offered onsite in 3rd term)                                                                                                                  | 2       |
| <i>Students must complete one of the following introductory environmental health courses</i> |                                                                                                                                                                                                                          |         |
| PH.180.601                                                                                   | Environmental Health (typically offered online in 3rd term, and onsite in Summer and Summer Institute)                                                                                                                   | 5       |
| PH.180.609                                                                                   | Principles of Environmental Health (typically offered onsite in 1st term)                                                                                                                                                | 4       |
| <i>Students must complete one of the following climate and health courses:</i>               |                                                                                                                                                                                                                          |         |
| PH.180.607                                                                                   | Climate Change and Public Health (typically offered onsite and online in 3rd term)                                                                                                                                       | 3       |
| PH.180.611                                                                                   | The Global Environment, Climate Change, and Public Health (typically offered onsite in 1st term)                                                                                                                         | 4       |
| PH.180.641                                                                                   | Climate Change and Public Health Problem Solving Seminar: Global Challenges and Solutions for Mitigation, Adaptation, and Sustainability (This course targets DrPH students and is typically offered online in 1st term) | 3       |
| <i>Students must complete two of the following courses</i>                                   |                                                                                                                                                                                                                          |         |
| PH.180.620                                                                                   | Introduction to Food Systems and Public Health (typically offered online in 1st term)                                                                                                                                    | 4       |
| PH.180.625                                                                                   | Community-Driven Epidemiology and Environmental Justice (typically offered onsite in 3rd term)                                                                                                                           | 3       |
| PH.180.626                                                                                   | Environmental Justice and Public Health Practice (typically offered online in 2nd term)                                                                                                                                  | 3       |
| PH.180.628                                                                                   | Introduction To Environmental and Occupational Health Law (typically offered online in 4th term)                                                                                                                         | 4       |
| PH.180.670                                                                                   | Introduction to Public Health Emergency Preparedness (typically offered onsite in 4th term)                                                                                                                              | 3       |
| PH.182.640                                                                                   | Food- and Water- Borne Diseases (typically offered onsite in 3rd term)                                                                                                                                                   | 3       |

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| PH.185.600 | One Health Tools to Promote and Evaluate Healthy and Sustainable Communities (typically offered online in 4th term)  | 3 |
| PH.224.689 | Health Behavior Change At the Individual, Household and Community Levels (typically offered onsite in 2nd term)      | 4 |
| PH.305.630 | Transportation Policy, Equity and Health (typically offered online in 4th term)                                      | 2 |
| PH.317.864 | Advanced Topics in Climate Change Policy (typically offered onsite in Fall Institute in Barcelona, Spain)            | 2 |
| PH.330.609 | Climate Change and Mental Health: Research, Practice, and Policy Perspectives (typically offered online in 4th term) | 3 |
| PH.330.665 | Climate Change and Mental Health (typically offered online in Summer Institute)                                      | 1 |
| PH.410.645 | Applying the Social Ecological Model in Tobacco Control and Climate Change (typically offered onsite in 3rd term)    | 3 |
| EN.575.711 | Climate Change and Global Environmental Sustainability                                                               | 3 |
| EN.575.723 | Environmental Sustainability and Next Generation Buildings                                                           | 3 |
| EN.575.735 | Energy Policy and Planning Modeling                                                                                  | 3 |