CHanGE
Center for Health and the Global Environment
UNIVERSITY of WASHINGTON | SCHOOL OF PUBLIC HEALTH

Graduate Certificate Proposal in Climate Change and Health

Overview

The Graduate Certificate in Climate Change and Health (GCeCCH) certificate program is open to currently matriculated students in any UW graduate program. The 15-credit (min.) curriculum includes one required three-credit graduate course in climate change and health; one required three-credit graduate course in climate science; one required two-credit communication course; elective(s) to bring their total certificate credits to a minimum of 15; and a three-credit Capstone Experience tailored to the student's interests. The required core courses provide an overview of climate change from the perspectives of Earth science and public health, health issues associated with climate change, relevant methods in health and other sciences, and an introduction to important perspectives from other disciplines. The electives include courses from a wide range of other disciplines at UW that provide relevant complementary perspectives, including those from atmospheric and climate sciences, geography, policy, engineering, infrastructure planning and management, and other areas. The Capstone Experience will provide a mentored opportunity to explore a climate and health topic more deeply and experience an interdisciplinary approach to the characterization or management of a climate and health concern.

Curriculum

Core Course I	3 credits	Either: GH/ENV H 518; OR ENVH 579; OR GH 520
Core Course II	3 credits	ATMOS 587
Core Course III - communication	Var. credits	Either: ENV H 521 (2 credit); or OCEAN/ATMOS/ESS 593 (1 credit); OR PUBPOL 582 (4 credits); OR other communication-related course with approval from CHanGE

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Capstone Project	min. 3 credits	ENV H/GH/ATMOS/OCEAN 600
Electives	remainder of credits	See posted list
Total	**15 credits minimum**	

Note: The Graduate School requires all graduate certificates to be a minimum of fifteen student credit hours, nine of which must be earned in courses numbered 500 and above. Nine student credit hours must be earned in graded courses. The overlap of coursework applied toward both a certificate program and a graduate degree program must not exceed 6 credits and is limited to elective coursework in each program.

Core (required) Courses

Three core classes for a total of seven to ten credits are required (depending on the communication course chosen). The first is either GH/ENV H 518, "Understanding and Managing the Health Risks of Climate Change," or ENV H 579, offered jointly with GH 520, "Climate Change and Public Health Practice" (3 credits). The second is ATMOS 587, "Fundamentals of Climate Change" (3 credits). The third is a communication-focused course chosen from either ENV H 521, "Effective Communication Strategies for Environmental Public Health Professionals," (2 credit); or OCEAN/ATMOS/ESS 593, "Climate Science Seminar," (1 credit); OR PUBPOL 582, "Communicating Climate Change," (4 credits); OR other communication-related course with approval from CHanGE.

Capstone

ENV H / GH / ATMOS / OCEAN 600, "Independent Study or Research" (Min 3 credits)

The capstone is a hands-on activity focused on climate and health. **Students should work with their thesis mentor to determine a capstone project & find a capstone advisor (if different).** CHanGE can provide support to students and mentors if needed. All capstone projects must be reviewed and approved by CHanGE prior to starting work.

While capstone projects will vary depending on the stakeholders and organizations involved, all projects should include:

- substantial interaction with stakeholders to clarify their needs regarding climate and health research and practice
- development of an applied project that responds to stakeholder needs; projects can include a focused research effort, literature review, development of a curriculum, development of a communication tool, or other activity that will be responsive to the stakeholder's needs

- preparation of a detailed a final report, including any materials, presentations, and other products related to the project
- close mentorship by certificate faculty and involved stakeholders throughout the project

While projects will vary, common competencies that students will develop through the capstone include:

- organizational needs assessment
- translation of needs into priorities and action items using logic frames and other tools
- implementation science skills such as development of outcomes, indicators, and metrics
- skills in searching, reviewing, and synthesizing scientific and practice-based literature
- anticipation and negotiation of organizational barriers and constraints in climate change adaptation
- communication of scientific information to lay audiences
- preparation of scientific documents for community and practice-based stakeholders and for scientific audiences
- development of figures or graphics to facilitate communication of scientific findings related to climate and health

As part of the application process, students should propose a capstone project idea or topic, partner organization (if appropriate), project mentor, and timeline, and will be expected to meet with CHanGE's Education Director prior to starting to ensure the project meets the goals of the certificate program. Together, the student, faculty, and stakeholder mentors will develop goals and objectives for the capstone experience that will be reviewed and approved by CHanGE personnel. Students can receive support from CHanGE faculty on finding a capstone mentor if necessary. If the student intends to build off their current thesis or dissertation work, the capstone product shall be a substantial addition to the student's research aims and be clearly defined in the above referenced goals and objectives. Students will be evaluated based on their steady progress toward stated objectives and on the final product. Capstone deliverables may vary but will include a presentation to fellow students and interested faculty, and should have a final product (report, presentation, publication, etc. as discussed with mentor & CHanGE).

Electives

Students will choose electives to bring their total certificate credits to a minimum of 15. Please see the posted list for available elective courses and their credits. Exceptions can be discussed with CHanGE certificate advisors.

Student Learning Outcomes

1. Climate Science and Health Foundations

Demonstrate a comprehensive understanding of the science of climate change—including sources of greenhouse gas emissions, climate projections, and the magnitude of sectoral contributions—and articulate the causal pathways linking climate-related exposures to specific health outcomes.

2. Assessment and Critical Analysis of Climate-Health Impacts

Apply and critique methods for characterizing, surveilling, and projecting health impacts of climate change, including the use of emissions scenarios, integrated assessment models, and risk management principles, with attention to uncertainty and threats to validity.

3. Adaptation and Mitigation in Public Health

Evaluate, design, and communicate adaptation and mitigation strategies in the public health sector, including assessment of health co-benefits, indicators, surveillance, and the state of adaptation and mitigation efforts domestically and internationally.

4. Communication and Stakeholder Engagement

Effectively communicate scientific information and key messages about climate and health to diverse audiences—including lay and scientific communities—using appropriate messaging, graphics, and communication tools, and engage stakeholders to clarify needs and translate them into actionable projects.

5. Applied Interdisciplinary Practice

Develop and implement an applied project, while collaborating with partners and mentors to address organizational and/or community challenges in climate and health, demonstrating skills in project management, negotiation, and interdisciplinary teamwork.

Governance and Faculty Involvement

The certificate is administered through the School of Public Health and the Graduate School, Department of Environmental and Occupational Health Sciences (DEOHS) and co-sponsored by DEOHS and the Department of Global Health (DGH).
Dr. Tania Busch Isaksen directs the certificate program. Faculty for advising students in their Capstone experiences include CHanGE faculty Drs. Kris Ebi and Jeremy Hess as well as other members of the Center for Health and the Global Environment (CHanGE). CHanGE personnel can also assist students with finding the appropriate mentor if needed.

The certificate program is managed by CHanGE's Program Manager, Marci Burden.

Admission Process, Student Tracking, and Granting Certificates

Students intending to pursue the GCeCCH should complete an application (found on the CHanGE website) and notify the Center for Health and the Global Environment (CHanGE) coordinator at chge@uw.edu. Students will be accepted into the GCeCCH after a review of their application materials and a meeting with Dr. Tania Busch Isaksen. CHanGE's program manager will manage admissions, track student progress, and take part in the process for granting the certificate through the Graduate School. Students will complete a checklist and submit to CHanGE upon completion of all courses & capstone, with signatures of approval from their capstone mentor & CHanGE.

To officially receive any graduate certificate, students must initiate the process by requesting the certificate in MyGrad Program for Students. First, the student must be coded into the certificate (which will be completed by the certificate program manager after submission of an application and acceptance into the program). Then, students can request the certificate during their final quarter. After this, action is taken by both our department and the Graduate School. Students can view the status of their certificate request via MyGrad. For more detailed instructions, visit here.

Admission Standards

Prerequisites include admission to any UW graduate program. Students must be currently matriculated and demonstrate an interest in the health effects of climate change.

Admissions Timeline

This AY 2025-26, applications will be open for two weeks each quarter starting about one month before UW course registration. Please see the table below for the specific admissions timeline for AY 2025-26. Please note that beginning next AY 2026-27, the

application period will begin on the 2nd Monday of each quarter and end on the 4th Monday.

Quarter applying	Quarter admitted / starting the certificate	Application period	Review period	Class registration starts
Autumn 2025	Winter 2026	Oct 6th – Oct 19th	Oct 20th - Oct 27th	Nov 3
Winter 2026	Spring 2026	Jan 20th - Feb 2nd	Feb 3rd - Feb 10th	Feb 12
Spring 2026	Autumn 2026	April 14th - April 27th	April 28th - May 5th	May 7

Grading/Assessment and Minimum Standards

Successful completion of the Certificate Program requires a minimum cumulative GPA of 3.0 and a grade of 2.7 or higher for each course counted toward the certificate. Student capstone activities will be evaluated as outlined above.

Certificate completion requirements

- Successful course & capstone completion
- Signed checklist
- Presentation at year-end certificate event

Transcript Title

Certificate in Public Health - Climate and Health

We do not send a physical certificate upon completion. The certificate will appear on the student's transcript.