



# Our Climate, Our Communities: Science, Systems and Solutions

A Hybrid Professional Development Institute for Middle and High School Educators

## Join the Wade Institute for Science Education and Salem Sound Coastwatch to learn about climate change directly from scientists and experts!

*Our Climate, Our Communities: Science, Systems, and Solutions* will enhance your knowledge of issues related to climate change and provide you with the tools to support your students' understanding of climate change through local phenomena, community-based solutions, and opportunities for action. Explore examples of best practices in climate change education. Engage in climate and alternative energy investigations, work directly with scientists and engineers, explore regional resources, and develop investigations you can use in your classroom.

Partners at Salem Sound Coastwatch and guest speakers from around the state will share their work to understand and combat climate change. Learn about the climate system from UMASS Boston Professor Bob Chen, PhD and experience the climate system tool En-ROADS with STEM Education Consultant Tamara Shapiro Ledley, PhD. Talk with Chemical Engineer Richard Rys about his vision for how Massachusetts could meet all of its electricity demands with renewable energy. Explore the connections between plant health, soil health, carbon sequestration, and human health with organic farmer Dan Kittredge of the Bionutrient Food Association. Discover creative solutions on the shoreline with Northeastern University Professor Brian Helmuth.

Throughout the course you will engage in climate and energy investigations, talk directly with scientists and engineers, explore your own local resources, and develop a project that you can replicate in your classroom. You will leave the course with tools and resources for integrating climate change concepts into your instruction and the confidence to engage your students in active discussion, sense-making, and problem solving around the challenging and dynamic topics of climate change.

This is a hybrid course, made up of on-site sessions and asynchronous class time. Asynchronous class time takes place in self-paced online modules comprised of assignments such as discussion posts, at-home investigations, and resource exploration. The online modules are scheduled for the weeks between each on-site session, as well as before the first and after the last on-site session. Each module should take approximately 2-4 hours to complete; overall the asynchronous portion of the class accounts for 13 hours of the total program hours.

### Program Highlights:

- Connect with scientists who bring diverse perspectives on the various impacts of a changing climate and offer current insights into strategies for mitigating those impacts.
- Engage with evidence as you explore local resources and gather data for your own investigations.
- Deepen your understanding of climate change phenomena as you investigate different parts of the global ecosystem and figure out how they interact to create a complex climate system.
- Make it local as you gather resources that will help you explore climate change issues relevant to your local community.
- Apply your learning to develop a collection of inquiry-based investigations and classroom resources that will engage your students with Phenomena-based Learning and the Science and Engineering Practices.
- Take back to school a materials kit for the inquiry-based, hands on investigations you explore during the course.



### Registration Information

**Online Dates:** September 23 - December 11, 2022

**On-Site Dates:** Saturdays, October 1 & 22, November 12, and December 3 (8:30 AM - 3:30 PM ET)

*On-site dates will be held at Salem Sound Coastwatch in Salem, MA.*

Participants must register prior to the first online session. The first module must be completed by the first on-site session on October 1st.

**Cost:** \$450/participant; \$400/participant if attending as a team with two additional teachers from your district; \$375/participant if attending as a team with three or more additional teachers from your district.

**PDPs and Graduate Credit:** 40 PDPs available without graduate credit. 67.5 PDPs and 3 graduate science credits from Cambridge College available for an additional \$225 (\$75 per credit).

**Collaborating Partner:** Salem Sound Coastwatch

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Visit [www.wadeinstitutema.org](http://www.wadeinstitutema.org) to learn more and register for this course!