



Penobscot Valley Senior College

CLIMATE CHANGE SERIES

Mondays March 21 – May 16, 2022

1:30 – 3:30 PM

Presented on Zoom

Climate Change: Problems, Solutions, Progress – Mainers Working Together

In Support of the MSCN Climate Change Initiative, Penobscot Valley Senior College has developed and is presenting a nine-session series course, *Climate Change: Problems, Solutions, and Progress- Mainers Working Together*. Each session will cover different aspects of the climate change crises and will be presented by some of the leading professors, subject matter experts, and public sector leaders in Maine. In the sessions, we will explore some of the science being relied on that demonstrates the need for action now, goals we must achieve and likely impacts if we fail to meet our climate targets, current and pending legislation, strategic planning that is critical to our success, and economic considerations that must be weighed as we move forward. If you're tired of getting sound bites about various parts of the climate change puzzle, here is a chance to get a better overall picture from these various experts including lots on solutions and what you can personally do to support the effort.

This timely course should have something for everyone to learn more about the many effects of Climate Change. Our PVSC Vice President, Bill Fackenthall, and dedicated Curriculum Committee member Nancy Rampe, along with other curriculum members, have accomplished an amazing task in finding such notable presenters. For the tuition cost of \$30.00, PVSC's usual course fee, you will have access to **nine** sessions presented by **twenty** experts in this field. This course is open to all current members of PVSC and other Maine Senior College Network Members.

For those who may have to miss a session or want to review one already presented, each presentation will be recorded and a link to it will be sent to all registered participants shortly after each session ends. The recordings will only be available for viewing for two weeks after each session.

To register for this event, or any of the PVSC Spring 2022 courses, please visit:

<http://www.penobscotvalleyseniorcollege.org> OR mail the registration form on page 6.

Questions: contact Sheila Krautkremer at 207-659-1359 or smksenior2020@gmail.com

Members of other MSCN colleges need to email their name, email, phone, and name of your college so that the membership fee can be adjusted prior to registering.

Session 1: Monday March 21, 2022, 1:30 - 3:30 PM

Long-term Climate Change Provides Surprising Clues about the Future

Earth's climate is constantly changing. Understanding natural, long-term climate change provides important insights about the future and about the changes brought about by human activities. This presentation surveys the impacts of ice ages on Maine's forests, lakes, and streams that were shaped by the interactions of the flowing ice, topography, and the regional geology as well as on vegetation on the deglaciated landscapes.

Presenters: George L. Jacobson and Stephen A. Norton

Prof. George Jacobson has been on the faculty of the UM School of Biology and Ecology, and the Climate Change Institute (CCI) since 1979 and was Director of CCI for a decade. His research has involved long-term climate change and how climate and vegetation have interacted.

Prof. Stephen Norton has served on the UM faculty of Earth Sciences (now Earth & Climate Science) since 1968. His research in the field of aquatic geochemistry involves the interactions of water, humans, and geology, particularly the geochemistry of water in rivers, lakes, and soils, and the chemistry of lake sediment.

Session 2: Monday March 28, 2022, 1:30 - 3:30 PM

Glaciers and Sea Level Rise

This session will provide a basic overview of the global water cycle and how it is related to glaciers and sea-level rise, particularly the impacts of glacier changes on projected sea level rise, areas of uncertainty, and predicted impacts on Maine coastlines. There will be opportunities for interactive engagement throughout our session, with a space for discussion in breakout rooms at the beginning and end.

Presenters: Inga Kindsedt, Kailey Mannello, Mo Weitman, Emma Erwin

Inga Kinstedt, Kailey Mannello, and Emma Erwin are graduate students in the University of Maine's School of Earth and Climate Sciences; Mo Weitman is a recent graduate of this program. Their research areas focus on the various impacts of climate on glaciers around the world.

Session 3: Monday April 4, 2022, 1:30 - 3:30 PM

Carbon Negative Solutions in Maine and Beyond

This session will focus on "solutions", or more accurately, opportunities to create negative carbon emissions that are an essential part of our integrated climate response. In the first hour, the session will cover aspects of the natural environment in Maine (e.g., in the wood and soil) and their ability to store carbon. The second hour will be focused on negative emission technologies to reduce CO₂ concentrations in the atmosphere with global potential as embodied in the Climate Restoration initiative.

Presenters: Ivan Fernandez and Peter Garrett

Ivan Fernandez is a professor at the School of Forest Resources Climate Change Institute and School of Food and Agriculture at the University of Maine where he has taught courses in forest soils, carbon and climate, and climate adaption. Since 2019 he has been a member of the Maine Climate Council and serves as a Co-Chair of its Scientific and Technical Subcommittee. In 2021 he was also a member of the Governor's Carbon Task force.

Peter Garrett has been a leader in developing a network of advocates on the climate change issue in Maine under Citizens Climate Education and Citizens Climate Lobby. Previously, he led a hydrogeology consulting team cleaning up and developing new groundwater sources for towns throughout the state and elsewhere.

Session 4: Monday April 11, 2022, 1:30 - 3:30 PM

How Climate Change will Impact the Northeastern States and Latest Status of Potential Legislative Initiatives

This session will cover the latest and most authoritative scientific research detailing how climate change will impact the Northeastern region of the United States, as well as ongoing efforts in Washington D.C. to implement climate policy solutions.

Presenter: Dana Nuccitelli

Dana Nuccitelli is Research Coordinator for Citizens' Climate Lobby, an environmental scientist, and climate journalist with a Master's degree in physics. He has written about climate change since 2010 and in 2015 published the book *Climatology versus Pseudoscience*.

Session 5: Monday April 18, 2022, 1:30 - 3:30 PM

Maine Won't Wait: The State Climate Plan and How Mainers are Taking Action

Maine Won't Wait is a four-year climate plan presenting feasible strategies and goals to emit less carbon, produce energy from renewable sources and protect our natural resources, communities and people from the effects of climate change. This session will introduce the plan to participants and cover examples of Mainers taking action.

Presenter: Cassandra Rose

Dr. Rose is a Senior Science Analyst and Climate Council Coordinator with the Governor's Office of Policy Innovation and the Future. Dr. Rose managed a policy and communications program for the American Geosciences Institute between 2015 and 2019, where she connected the geoscience community with policy makers at the local, state, and federal levels to support science-based decision making on issues related to climate, energy, water, mineral resources, and natural hazards.

Session 6: Monday April 25, 2022, 1:30 - 3:30 PM

Climate Justice: What is a Fair Share of the Costs?

Lecture followed by discussion.

The focus will be on what is a fair share of the burdens of climate change mitigation (and adaptation), both globally and domestically. Some questions to be discussed include:

What greenhouse gas emissions reductions are needed to keep global warming below 2 or 1.5 degrees Celsius? Who is responsible for making these reductions or paying for them? How much should a just policy take into account past emissions or ability to pay?

What kinds of policies can bring about climate change justice?

Presenter: Michael Howard

Michael Howard is a Professor of Philosophy at the University of Maine, where he has taught since 1981 and has published scores of articles on topics in social and political philosophy, including economic democracy, universal basic income, and climate justice.

Session 7: Monday May 2, 2022, 1:30 - 3:30 PM

Achieving Maine's Renewable Energy and Climate Goals

The State of Maine has been a leader in both recognizing the potential impacts of climate change on the state and in enacting policy to mitigate and prepare for the risks associated with climate change impacts. In this session, staff from the Governor's Energy Office will discuss how Maine's unique and abundant renewable energy resources can be responsibly developed to position the state to achieve its clean energy and climate goals, and how a transition to a greener, cleaner grid can be achieved in an effective, affordable, and equitable manner through careful policy design. This session will include both lecture and discussion portions.

Presenters: Caroline Colan, Ethan Tremblay

Caroline Colan serves as the Solar and Storage Fellow for the Governor's Energy Office, providing project management and research support for state solar and storage programs. She has a B.A. in geography from Middlebury College.

Ethan Tremblay is an Energy Policy Analyst for the Governor's Energy Office, focusing on a variety of renewable energy policy initiatives. He has a M. S. in Resource Economics and Policy from the University of Maine.

Session 8: Monday May 9, 2022, 1:30 - 3:30 PM

The Citizens' Climate Lobby and Climate Change Legislation

Maine is working hard to address our climate crisis, but with only 0.3% of U.S. carbon emissions, we need national and international policy to avert the worst effects of climate change and prevent Maine from losing its natural heritage (fisheries, winter recreation, blueberries, forests, etc.). Learn about national policy options, the current state of climate policy negotiations, and compare policy

options using MIT's insightful EN-ROADS Climate Simulator, which compares the effectiveness of alternative solutions.

Presenters: Peter Dugas, Gerry Gross, Theresa Hainer, Glen Koehler, Kimberlee Hammond

Peter Dugan is the Maine State Coordinator of Citizens' Climate Lobby, a grassroots volunteer organization dedicated to building the political will for effective and equitable climate policy.

Gerry Gross is a retired Speech-Language Pathologist and longtime environmental advocate. She was drawn to Citizens' Climate Lobby because of its focus on realistic solutions to climate change its efforts to reach across party lines to find common ground who now co-chairs the Bangor chapter.

Theresa Hainer is a retired Nurse Practitioner, master organic gardener, and longtime outdoor enthusiast. She joined Citizens' Climate Lobby after taking Glen Koehler's class on climate change and meeting Connie Potvin and Lyn Rohman (founders of the Bangor CCL chapter). She now co-chairs the Bangor chapter.

Glenn Kohler is an associate scientist with the University of Maine Cooperative Extension working on integrated pest management of tree fruits and weather-based predictive crop, pest timing and severity models. He contributes to the USDA Northeast Climate Hub and the Northeastern IPM Center Advisory and Steering Committee.

Kimberlee Hammond is a retired special education teacher, climate activist and volunteer with Citizens' Climate Lobby.

Session 9: Monday May 2, 2022, 1:30 - 3:30 PM

Drawdown Climate Solutions: What Mainers Can Do Now

This session will describe Project Drawdown and present ways we can move toward a climate-safe planet. Learn about Climate Solutions 101, which lays out a systems approach to the climate crisis with focus on solutions that are science based, currently in use, and available to implement. Breakout rooms will enable participants to explore these solutions and discover what each of us can do personally and together to meet climate change goals.

Presenters: Bert Cohen, Bill Fackenthall

Bert Cohen has been working in the area of sustainability for over 30 years. Twenty-five of these years were spent as Affiliate Assistant Professor at the University of New Hampshire in the Department of Natural Resources. During his fifty plus years of teaching he has been actively exploring how to form learning communities that support the wellbeing of the individual, enhance the health of society, and respect the integrity of our environment.

Bill Fackenthall is the course moderator and Vice President of Penobscot Valley Senior College. He has Bachelor of Science Degree in Biochemistry from California State Polytechnic University, San Luis Obispo, California. He has a commitment to educating himself and others so we can all take appropriate actions to ensure a climate-safe place for our children and future generations.



PVSC SPRING 2022 ZOOM CLASSES REGISTRATION FORM

Online Registration ENDS MARCH 15TH at 11:59 PM
Send mailed registrations prior to March 15th in case of delays

PVSC 499 Broadway PMB #274 Bangor, ME 04401
Classes start the week of Monday, **March 21, 2022**

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| \$_____ Taiji Fit Moving Meditation (Limit 24) | Mon. 10:00 - 10:45 (6 weeks) |
| \$_____ Climate Change Series... | Mon. 1:30 - 3:30 (9 weeks) |
| \$_____ Experimenting with Collage (Limit 10) | Tues. 10:00 - 12:00 (5 weeks begins 3/22) |
| \$_____ Everything You wanted to Know About Judaism... | Tues. 1:30-3:30 (6 weeks) |
| \$_____ Come Play in My Chemistry Set! | Wed. 10:00 - 12:00 (6 weeks) |
| \$_____ History of Refugee Resettlement... | Wed. 1:30-3:30 (6 weeks) |
| \$_____ Four Women...Moral Philosophy | Thurs. 10:00 – 12:00 (6 weeks) |
| \$_____ What's Your Story? (Limit 12) | Thurs. 1:30 - 3:30 (5 weeks, begins 3/31) |
| \$_____ Supreme Court Term 2022 | Fri. 10:00 – 12:00 (6 weeks) |
| \$_____ ...Children's Literature (Limit 24) | Fri. 1:30 – 3:30 (6 weeks) |

\$_____ **2021-2022 PVSC Membership \$25 individual (if you have not yet joined)**

\$_____ **2021-2022 two people at the same address \$40 – Member 1 and 2**

Checks to PVSC – Total enclosed: \$_____

(Each class is \$30, for each household member registering for the class.)

Name: _____

Name: _____

Address: _____

Email address: _____

Phone number _____ Home or Cell (Circle one)

Feel free to print out more than one registration form or indicate with initials who is taking the class.

Are you willing to be a Zoom Co-Host if training is provided? Yes No (Circle One)