

Master Class Syllabus: Ice Core Science: Knowledge to Action

Climate change is arguably the most urgent issue facing the planet and future generations. This Master Class will explore understanding evidence of past climate change from polar ice cores as well as adaptation strategies being used by communities already being affected by climate change and how to empower our students to take action.

Sign in as a Member in the Google Group: <https://groups.google.com/forum/#!forum/pei-master-class-ice-core-science> OR ask to join by emailing Betty Trummel <boop82@aol.com>

NOTE:

- 1)** The Master Class series is designed with group participation as a goal. With that in mind, participants will gain the most from this professional development activity when they are highly engaged in the discussion group.
- 2)** To earn a certificate, participants must sign in minimally once a week and respond to both discussion threads, but we hope you will sign in more often and not only complete the requirements, but also respond to your fellow colleague's comments.

Before 27 February 2019

- 1. Complete the pre-survey** <http://bit.ly/2CKi2uX>

4-8 March

- 2. Whether you participated in the live webinar or watched the recorded version, post a paragraph reflection** about the webinar in the discussion group thread: Include reactions to the science/communication content as well as your thoughts on how you might use the information from the National Climate Assessment with your audience.
- 3. 4th National Climate Assessment Report**--<https://nca2018.globalchange.gov/>--read the "Key Messages" for Chapter 28 (adaptation) and 29 (mitigation). Read the "Key Messages" for your region if you live in the US, or use the IPCC Report Regional Aspects for your continent/region: <https://www.ipcc.ch/report/ar5/wg2/> Also, please share with this group any national resources from your country that describe future climate change issues for where you live.

Post on the Google Group: How do the adaptation and mitigation Key Issues resonate with you in relation to your region? How might your students address either an issue of mitigation or adaptation? Share your ideas on the Google Group—respond to others' ideas.

- 4. Guides for Educators to teach climate using the regional chapters of 3rd National Assessment (the guides for the 4th report have not been developed yet.)**
<https://www.globalchange.gov/news/regional-guides-help-educators-use-national-climate-assessment>

5. **Visit climate-expeditions.org.** Look at the activities and resources. Which would you like to try with your students? Which could be used to meet the standards you are required to teach? Respond on the Google Group.
6. **Discussion Questions:** How could the NCA (or similar national reports) be incorporated into classroom learning activities? What mitigation/adaptation projects have your students been involved in, OR what ideas do you have for future projects? How can we get students involved in an action for the future?

11-15 March

7. Go to www.drawdown.org This is an exciting resource highlighting 100 solutions to “drawdown” CO² in the atmosphere by 2050. The technology for 80 of these solutions is already here with 20 more coming soon. Read the description of the Drawdown Project on the front page. Watch the TED Talk by Chad Frischmann at the bottom of the page. What is your reaction to this resource?
8. Go to <https://www.drawdown.org/solutions> Thinking of your audience, choose one of the “sector summaries” linked in the middle of the page just above the “Solutions by Rank” chart. Read the introductory page for the sector chosen. Choose 1 solution from that sector to discuss in the Google Group.
9. **Watch 2 videos:** <https://www.youngvoicesfortheplanet.com/youth-climate-videos/>
Post a comment about how these videos are applicable to you as an educator or to your students. Do any of them spark an idea for a project your students could lead in your region? Relate what you have learned by looking at the National Climate Assessment Report, the Drawdown website and Young Voices to ideas for student action.
10. **Assignment:** Write a short description of how you will empower your students to take action.

By 18 March

11. **Complete the post-survey** <http://bit.ly/2RSNAJo>

A certificate of participation for 6 contact hours will be issued to participants who:

1. Either **attend the webinar** or watch the recorded version and **post a short response**
2. In addition to posting #1 & #4, **post at least twice a week** in the online discussion group between 4-15 March responding to the prompts listed in the syllabus.
3. Complete both the **pre and post surveys**
4. **Post a short description** of how you plan to empower your students to take an action.