



**Your
Education
Ally.**

By Teachers,
For Teachers.

Course Syllabus

Name:

Date:

Today is a Great Day to Learn Something New!

Professional learning to meet your needs.

Engaging and applicable, ELEVATE courses are the core of Teaching Channel. We offer a variety of courses that meet the continuing education needs of teachers from across the country. Teaching Channel courses work perfectly for license renewal needs, working to move up through salary schedules, or for professional learning to support improved student outcomes. Teaching Channel provides continuing education graduate credit courses that have been approved and endorsed by regionally accredited colleges and universities from across the United States.



Current University Partners (See a current list of academic partners on our website)

Continuing Education courses are approved by our regionally accredited (HLC, NECHE, WSCUC, NWCCU) partners by review of syllabi, content, and coursework expectations. (Indicate anticipated university/college partner below, if applicable.)

Course Creation and Evaluation:

Courses are created and evaluated by educators with a master's degree or higher in an education-related field and five or more years of classroom experience in PreK-12th grade education. Course evaluators provide personalized, specific feedback for assignments and rubric-based grading aligned with best practices in professional education.

Spring Term

Registrations Accepted
July 16-March 15
Coursework Due*
April 15

Summer Term

Registrations Accepted
December 16-July 15
Coursework Due*
August 15

Fall Term

Registrations Accepted
March 16-October 22
Coursework Due*
November 15

*Or first business day after the 15th if due date falls on a weekend.

Coursework Details

The Rigor of Teaching Channel Graduate-Level Continuing Education Courses.

Professional Learning Model

Our research-based Professional Learning Model is used to design ELEVATE continuing education courses. The model includes five elements used to guide professional learning and to positively impact student outcomes:



Course Content

ELEVATE Courses are self-paced, and per standard practice in the field, each credit carries the equivalent of fifteen hours of content and coursework. Participants explore resources that include a solid balance of research and applicability. All courses feature video clips, research-based articles, and interactive elements to enhance and support learning. To receive credit, participants must complete the following requirements according to expectations outlined in our course rubric:

Response Questions: Connect new learning from course resources to current pedagogy.

Resource Review: Find resources related to the course topic to extend learning and solve problems of practice.

Applications: Complete a variety of assignments encouraging participants to implement new learning in their classrooms or schools.

Reflection: Write a reflection paper that activates critical thinking and inspires the transformation of future professional practice.

Course Name	Taking Action with Climate Change Education
Course Number	OL 5540
Course Credits	3 or Flex Credit

NOTE: This syllabus is an outline of the course requirements and is subject to change; the coursework will be completed and submitted in the online environment where you will have full access to a variety of media, links, and other online tools required to satisfactorily complete this course.

Course Description:

As students grow, they come to understand how climate change affects humanity, the planet, and their future. In this course, teachers will find fresh ideas for teaching students about climate change in ways that foster awareness, promote action, and encourage advocacy. Explore how knowledge about climate change empowers students to make environmentally conscious decisions that motivate them to become informed global citizens. Discover resources that provide innovative ideas and learn why people of color and people in poverty are more affected by a changing environment. Learn how you can inspire a generation of students to address the most pressing challenge of our time and commit to creating a sustainable and resilient future.

Course Objectives:

1. Use prompts about teaching climate change to students to describe assumptions and insights of practitioners, researchers and self, including how the information relates to professional education practice and growth.
2. Learn foundational information about climate change and its impact on the Earth, humanity, and students.
3. Explore resources that can be used to effectively educate students about climate change.
4. Review research that counters the controversy about climate change and its impact.
5. Design an initiative, presentation, or unit of study about climate change.
6. Investigate concepts of student advocacy and activism that teach students ways to take action to combat climate change.
7. Explore how climate change has a greater impact on people in poverty and people of color.

Required Reading:

All articles and other resources are linked in the online environment, within their respective assignments.

All coursework is to be completed in the Teaching Channel online environment.

Knowledge Base:

Knowledge base, in part, is affirmed in the writing and research of these references:

Children & Nature Network: Home. Retrieved May 11, 2023, from

<https://www.childrenandnature.org/>

Classroom Activities, categorized by the Next Generation Science Standards (NGSS). (n.d.). Earth Science Week |. Retrieved May 10, 2023, from <https://www.earthsciweek.org/classroom-activities/ngss>

Climate Change: Vital Signs of the Planet. Retrieved May 9, 2023, from <https://climate.nasa.gov/>
Earth Science Week |. Retrieved May 8, 2023, from <https://www.earthsciweek.org/>

Gore, A. (2006). *An Inconvenient Truth: The Crisis of Global Warming*. Penguin Young Readers Group.

Noonan, J. (2022). *Professor Figgy's Weather and Climate Science Lab for Kids: 52 Family-Friendly Activities Exploring Meteorology, Earth Systems, and Climate Change*. Quarry Books.

NSTA: Homepage. Retrieved May 11, 2023, from <https://www.nsta.org/>

Sanford, M., Painter, J., & Lorimer, J. (2021, August 31). *Controversy around climate change reports: a case study of Twitter responses to the 2019 IPCC report on land*. NCBI. Retrieved May 9, 2023, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8405718/>

United Nations. Retrieved May 10, 2023, from <https://unfccc.int/>

All coursework is to be completed in the Teaching Channel online environment.

Teaching Channel Course Rubric

All course submissions must meet general graduate level standards through the use of correct grammar, spelling, and mechanics. Each paragraph should be clearly organized and include 5 sentences or more. If work does not meet the above criteria, it will be returned to the student for resubmission.

Rubric	A Grade = Outstanding Performance	B Grade = Target Performance	Below Target Performance
Statement of Intention and Awareness	The evaluator will only review the Statement of Intention and Awareness for a response to each prompt. If a student does not respond to each prompt, the Statement will be returned to the student for resubmission. The student's Statement of Intention and Awareness will be evaluated as part of the Reflection.		
Investigation: Read and Respond	Coursework thoroughly and accurately addresses all question components by summarizing key concepts from readings. In at least half of the responses, the participant also makes inferences related to professional practice or supports answers with professional experiences.	Coursework thoroughly and accurately addresses all question components by summarizing key concepts from readings.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.

All coursework is to be completed in the Teaching Channel online environment.

Investigation: Resource Review Rubric	A Grade = Outstanding Performance	B Grade = Target Performance	Below Target Performance
Summary of Resource	Coursework summarizes the main ideas presented in the resource and includes at least one instance of critical analysis (i.e. asks questions, looks for gaps in information, disputes contradictions, etc.)	Coursework summarizes the main ideas presented in the resource.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.
Relation to Personal Assumptions or Course Content	Coursework provides more than one detailed example of how the resource supports or challenges personal assumptions and/or course content.	Coursework provides one example of how the resource supports or challenges personal assumptions and/or course content.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.
Impact on Professional Practice	Coursework provides more than one clear explanation of how the information in the resource could impact professional practice.	Coursework provides one explanation of how the information in the resource could impact professional practice.	

All coursework is to be completed in the Teaching Channel online environment.

Application Rubric	A Grade = Outstanding Performance	B Grade = Target Performance	Below Target Performance
Planning, Development and Execution	Coursework shows complete planning, development and/or execution of application, clear articulation of details and inclusion of polished required artifacts.	Coursework shows complete planning, development and/or execution of application and inclusion of required artifacts.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.
	Coursework includes creative or innovative application of new knowledge and skills from course content to professional practice.	Coursework includes application of new knowledge and skills from course content to professional practice.	
Written Requirements	Coursework provides clear, logical, and organized responses to any writing prompts in the application. It also includes at least one detailed connection to course objectives, student learning goals or transformation of professional practice.	Coursework provides clear, logical, and organized responses to any writing prompts in the application.	

All coursework is to be completed in the Teaching Channel online environment.

Reflection Rubric	A Grade = Outstanding Performance	B Grade = Target Performance	Below Target Performance
Connection to Statement of Intention and Awareness	Coursework includes an evaluation of both learning goals articulated in the participant's Statement of Intention and Awareness from Module 1. Participant includes one future learning goal related to course content.	Coursework includes an evaluation of one of the learning goals articulated in the participant's Statement of Intention and Awareness from Module 1.	Coursework will be returned to student for resubmission with evaluator instructions if it does not meet target performance.
Summary of Learning	Coursework includes three or more detailed connections to specific assignments completed or course content viewed (assigned readings or videos).	Coursework includes two general connections to course content.	
Description of Positive Influence or Transformation	Coursework includes two or more specific ideas for changes in one's professional practice with timelines. OR Coursework includes two or more detailed action steps with timelines for positively impacting other stakeholders.	Coursework includes one general idea for changes in one's professional practice. OR Coursework includes one action step for positively impacting other stakeholders.	

All coursework is to be completed in the Teaching Channel online environment.

Module 1

1. Tell us about yourself!

Before we begin with course content, write 1 sentence about yourself. You will be asked to include this background in each of the modules submitted for the course. This provides context for your responses and enables the course evaluator to respond with feedback tailored to your specific role in education. Here are three examples to guide you:

- I'm a 4th grade teacher and teach all subjects.
- I'm a middle school counselor.
- I'm out of the classroom on leave this year, but next year I'll be back teaching 9th grade science.

2. Statement of Intention and Awareness

At Teaching Channel, we want your learning to be purposeful and applicable to your professional practice. To do that, research says learners need to first identify their motivations and goals. Next, learners assess prior knowledge and previous experiences so they can create deeper connections to the course material.

Using the guidelines below, please address the following in your Statement of Intention and Awareness, in a total of two paragraphs, or more:

1. Share your motivation for learning about teaching students about climate change.
2. Summarize your previous knowledge or experience with teaching students about climate change.
3. List your own two learning goals for the course.

In Module 1, your evaluator will review your Statement of Intention and Awareness to ensure it is complete. It will be graded within your Reflection Requirement in Module 3, where you'll revisit your Statement of Intention and Awareness to identify your growth and learning from the beginning of the course to the end.

3. Application: The Basics of Climate Change

In 2006, An Inconvenient Truth premiered and many credit the film for "sounding the alarm" about global climate change. Yet, years before the film was in theaters, scientists tried to get the world's attention about the ways we were destroying the Earth, and warned us if we continued, our planet would become inhabitable. The phrase, "when we know better, we do better," provides hope, yet, we are running out of time. Teaching students about climate change is one way we can stop, or even reverse, climate change. Begin this application by watching this hopeful video from the United Nations, and reviewing the resources below, then complete the application that follows.

- Climate Change's Best Hope
- "Understanding Our Planet to Benefit Humankind," from NASA
- "Global Warming vs. Climate Change," from NASA
- "Basics of Climate Change," from the Environmental Protection Agency
- Videos:
- Climate 101: Cause and Effect from National Geographic
- Global Warming from 1880-2022 from NASA

All coursework is to be completed in the Teaching Channel online environment.

Next, write down *everything that comes to mind* when you think about climate change. Include anything that pops into your head—hopes, fears, concerns...etc. Next to each idea, provide a few sentence explanations about it. There are no right or wrong ideas!

For example, "scarcity of water—I am concerned we will run out of fresh water in the next 20 years." When submitting your work for this module, choose 5 items from your list to share concerning climate change—and brief explanations (3 or more sentences) to ensure we understand the items on your list.

If you used paper, take and submit a photo of your list. If your list is electronic, provide a link set to "anyone with the link" can view.

4. Application: Climate Change Controversy

Although we experience the impact of climate change each and every day, some remain skeptical. Review the resources below, then complete the application that follows.

- "How Do We Know Climate Change is Real?" from Climate NASA
- "Scientific Consensus: Earth's Climate is Warming," from NASA
- "UN Climate Change Quarterly Report: Q1 2023"
- "What is the Paris Climate Agreement?" from Yale Sustainability
- "What is the Kyoto Protocol?" from United Nations Climate Change

To complete this application, create 5 or more discussion prompts, then invite a colleague, fellow educator, friend, etc. to have a 15 minute or longer conversation about climate change and any ideas you each have about teaching climate change to students. If you already teach climate change, exchange ideas about lessons and ways to engage students.

You are welcome to meet virtually, over the phone, or in person. Grab a cup of coffee (in a paper or reusable cup, of course!) then gather to talk through your discussion prompts. As you talk, write down notes and any "a-ha!" moments that happen during your discussion.

When submitting your work for this module, include:

- Your list of 5 or more discussion prompts
- Your notes or a one paragraph or longer summary about your conversation
- The role of the colleague with whom you met
- Any other information to help us understand how the conversation went

Module 2

1. Tell us about yourself!

Provide a one sentence or longer explanation of your role in the field of education.

2. Application: Teaching Students about Climate Change

You may have generated some worthwhile ideas about teaching climate change when you had your collegial conversation in the previous application.

If you are looking for additional ideas, we have a number of amazing resources about teaching climate change for you below. Please review the resources, then complete the application that follows.

- "8 Ways to Teach Climate Change in Almost Any Classroom," from National Public Radio (NPR)
- "Climate Change Education Resources for Teachers and Students," from the Environmental Protection Agency (EPA)
- "15 Meaningful and Hands-On Climate Change Activities for Kids," from We Are Teachers
- "Climate Change: Vital Signs of the Planet," "For Educators" page from NASA includes a list of organizations that provide resources related to global climate change.
- Position Statement about the Teaching of Climate Science from National Science Teaching Association (NSTA)
- Next Generation Science Standards (NGSS) Global Climate Change Evidence Statements: Earth & Human Activity/Human Sustainability/Weather & Climate
- Safety and School Science Instruction from National Science Teaching Association from NSTA

Now, create a mini-lesson about climate change to use with students. Not sure where to start?

Here are some lesson examples: Our Last Straw, One Bottle at a Time, Turn Your Lawn Into a Meadow.

The lesson plan format you use is up to you! But, please be sure to include:

- Goals & objectives
- What the students will be doing
- One or more of the Climate Change Next Generation Science Standards
- One or more active learning component
- Enough information for a 15 minute or longer lesson
- Enough information so a colleague could teach the lesson in your absence

Include your lesson outline when submitting your work for this module. If submitting a link, be sure the link is set to "anyone with the link can view."

3. Application: Celebrate Earth Science Week!

Each year for the past 20 years, there has been an Earth Science Week celebration! This nod to science and the environment is an observance that takes place every October with millions participating. To get in on the fun, begin by reviewing the following resources, then complete the application that follows.

- Earth Science Week: Classroom Activities, categorized by the Next Generation Science Standards from EarthSciWeek
- Environmental Education-Education Resource Library from Earth Day
- Earth Science Week Resources (Educator Resources, Event Planning, Events & Opportunities, etc.) from EarthSciWeek
- Earth Science Week Resources for Teachers (Big Ideas, Classroom Activities, Curriculum, etc.) from EarthSciWeek
- "No Child Left Inside" from Earth Science Week

All coursework is to be completed in the Teaching Channel online environment.

For this application, consider how you could celebrate Earth Science Week with students, then sketch out an outline that captures your thoughts for how you might spend one day, a few days, or the week, celebrating!

In your one page outline include the following:

- A list of 3 or more ideas for celebrating Earth Science Day/Days/Week
- Materials you will need for the celebration
- Any resources from the list above you will use to plan the celebration
- How students, families, the school, and/or the community will be involved
- Any additional detail to ensure we understand how you will celebrate

When submitting your work for this module, include your one page outline. If including a link, be sure it is set to "anyone with the link can view."

4. Application: Student Advocacy & Action to Combat Climate Change

Begin this application by watching how our youth are taking action for climate justice:

Beyond Greta Thunberg: The uprising of youth climate activists

No climate change course would be complete without including ideas for advocacy and action! Look around, and you can see the ways in which students (and humans who live on this planet!) are working towards saving the Earth. Begin this application by reviewing the resources below, then complete the application that follows.

- What is Being Done to Solve Climate Change? from NASA-Solutions & Resources
- Our Goals for 2030-Tackling Climate Change from The Nature Conservancy
- "How Climate Change Affects People Living in Poverty," from Mercy Corps
- "Environmental Racism and Climate Change 101," from Action for the Climate Emergency (ACE)
- Understanding Our Planet to the Benefit Humankind from Climate NASA
- "Unleashing the Creativity of Teachers and Students to Combat Climate Change," from Brookings
- A Natural Solution to Climate Change

Now, put your learning into action by completing one of the options below.

Option A: Advocacy

There is nothing better than empowering students to become advocates for a cause! Not sure where to begin? These websites include Online Community Science Projects, and Community Science Project Finder.

For this option, brainstorm a list of 3 or more climate change advocacy ideas. For each idea, include a 5 sentence or more description to ensure we understand how students can put the idea into action.

Option B: Activism

For this option, create a form (like a digital Google Form or a doc for students to fill in the blanks) where students can write down their ideas for climate change activism. Along with a place where they can list their ideas, include space where they can write a brief description, and any other details (timeframe, materials, family/community involvement, etc.) you want them to include so they can move their idea from paper to action!

If submitting a link, be sure it is set to "anyone with the link can view."

5. Investigation: Resource Review

To complete the Resource Review, identify two resources related to (but not directly from) the course content to enhance your professional practice, and deepen your understanding of the course content.

Resources may include blog posts, podcasts, websites, videos, documentaries, films, articles, books, or journals, published within the last five years. To find a resource, we suggest a web search (Google) using terms or ideas from the course you'd like to learn more about, or that relate to your specific professional learning needs.

Please provide the resource title, author, copyright or publishing date, and URL (if applicable). Then, in two paragraphs or more per resource, respond to one or more of the following:

- Share information about how the resource information could impact your professional practice
- Explain how each resource supports or challenges your professional assumptions
- Summarize any questions that remain, i.e.: gaps in information or contradictions

To meet "A" criteria as outlined in the course rubric, for each resource, include two or more different examples of how the resource supports or challenges assumptions, *and* explain two ways this resource will impact your professional practice.

Module 3

1. Tell us about yourself!

Provide a one sentence or longer explanation of your role in the field of education.

2. Synthesis

Professional learning is essential for teachers to continue growing and improving their practice. Now, it's time to put your learning about climate change into action with a culminating project. This project is an opportunity for you to utilize the knowledge and skills you've acquired throughout the course to create something practical for your classroom or school. Teaching Channel wants you to culminate this course through an assignment that's relevant, applicable, and useful. Please select and complete one of the following options:

Option A: Plan an Initiative

Develop a plan to incorporate a paradigm shift, a specific educational model or a growth initiative into your classroom, on your team, or in your building about climate change.

All coursework is to be completed in the Teaching Channel online environment.

You may use Google Slides, Google Docs (for a narrative)—whatever works best for you. Please include each of the following in your 2 page or more plan:

1. Goals – what will the end results be?
2. Allies and Resources – who and what could help you reach your goals?
3. Communication – how will you engage with all stakeholders
4. Roadblocks and possible solutions
5. Timeline for implementation
6. One or more of the Climate Change Next Generation Science Standards if applicable

Examples:

Work with students to create a combating climate change advocacy group.

Have students meet with stakeholders in the community to take action against climate change.

Option B: Design a Presentation

Create a 30 min or more presentation about climate change for an audience of your choice, based on your learning in this course. Please include the following in your presentation:

1. One slide identifying your audience and how the presentation will benefit the group
2. Three or more concepts or ideas to be addressed in the presentation
3. Speaker notes embedded in the slides (or in a separate document)
4. One or more interactive activity (e.g. discussion prompt, jigsaw, gallery walk)
5. An explanation of next steps, such as additional trainings, resources, and/or collaborations
6. One or more of the Climate Change Next Generation Science Standards, if applicable

Examples:

- Design a presentation to educate students about the actions they can take to combat climate change.
- Create a presentation to encourage students to become active in working for climate change justice.

Please submit your presentation with your coursework submission.

Option C: Develop a Unit of Study

This option presents you with the opportunity to significantly enhance an existing unit of study or create a brand new one, comprising 5 or more lessons about climate change. For this option:

1. Describe the student goals/objectives of the unit
2. Using our template, please include enough detail to ensure full understanding of the program or unit of study. Could a colleague teach this from your explanation, without preparation from you?
3. Embed links to lesson resources (e.g. websites, videos, readings) within the template
4. If you are revising an existing unit, please describe the areas you've enhanced or extended the original lesson(s)
5. For each lesson, include one or more of the Climate Change Next Generation Science Standards (NGSS)

All coursework is to be completed in the Teaching Channel online environment.

Examples:

- Develop a series of lessons designed to teach students about climate change activism.
- Create a unit of study about the earth and ways students can combat climate change.

Please submit your template with your coursework submission.

3. Reflection

In 2 or more double-spaced pages (12pt font), synthesize your learning by summarizing how your learning in this course has evolved your professional practice. To meet "A" criteria as outlined in the course rubric, your reflection should include:

- A comparison of your learning goals from your Statement of Intention and Awareness in Module 1 with your new learning, to assess how you've grown.
- One key takeaway from your learning.
- One future learning goal related to course content.
- Three or more detailed connections to specific course applications, information from readings, and other completed course activities.

And your choice of *one* of the following:

- Two or more specific ideas for changes to your professional practice with timelines for implementing changes.
- Two or more detailed action steps you'll take to positively influence others (students, parents, colleagues, administrators, community members, etc.), including implementation timelines.

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