

NTRES 3800: Climate Solutions
Thursday, 2:30pm – 4:00pm
Fernow G24
Fall 2019

Instructors and Office Hours:

- Prof. Marianne Krasny, Dept of Natural Resources, mek2@cornell.edu, Office: 221 Fernow. Office hours: Tuesdays 10-11am, or feel free to make an appointment outside office hours.
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COURSE SUMMARY

Interested in working toward solutions to the climate crisis? In this new course, you will choose and implement a climate action from Project Drawdown's (www.drawdown.org) list of 100 climate solutions. You will also use principles derived from the social influence literature to persuade one of your social networks to implement the climate action. You will then explore climate policies and write a letter to a government official supporting a particular policy. Throughout the course, you will engage in online discussions with climate activists from 25 different countries who are also implementing climate solutions.

Credits: Course is three credits, S/U or graded.

Learning outcomes. By the end of the course, students will be able to:

1. Explain climate change mitigation, adaptation, vulnerability, and climate justice.
2. Identify and implement an individual action to draw down greenhouse gases.
3. Apply social sciences research to develop and implement an action plan to tackle a climate change in a social network.
4. Understand the costs and benefits of voluntary and mandatory climate change policies in the US and globally.
5. Evaluate and critique a public policy by writing a persuasive comment letter to a representative or resource agency.
6. Communicate effectively through a variety of media including writing, presentations, and online discussion boards and social media.
7. Demonstrate critical thinking skills while providing and responding to constructive peer feedback, in oral and written format.
8. Demonstrate cross-cultural understanding and communication skills as applied to working in a global online environment, including comparing, synthesizing, and assessing multiple perspectives.
9. Demonstrate equitable collaboration with Cornell students and online climate fellows, by contributing to quality work on time and in a professional manner, and recognizing diverse skills and perspectives.

Course Format. Course will include pre-recorded video lectures, readings, online discussion boards and chats, and one weekly discussion meeting. This course will use the learning management software Edge edX for all videos, readings, assignments, and discussions. (Unlike Canvas, Edge edX is accessible to students from other countries who will be conducting assignments from the course.) We will use closed Facebook and WhatsApp groups as *optional* discussion platforms where course instructors and students can post resources, pose questions, and “meet” others from around the world taking action to draw down greenhouse gases. Instructors will hold in-person and online office hours.

Benefits to the Learner. You will have the opportunity to share your ideas and climate solutions with university students and professionals from over 20 countries enrolled in a concurrent online fellowship. This global community is addressing climate change under widely varying conditions, and many are leaders and innovators in their own countries. You will learn about factors influencing climate action from experts and apply this knowledge to your climate action project.

COURSE OVERVIEW

This hybrid online/in-person course will engage students in critically assessing the effectiveness of a broad spectrum of actions and policies to address the climate crisis. Through engaging in discussions with participants in the concurrent [*Cornell Climate Online Fellowship \(CCOF\)*](#), Cornell students will gain insight into issues of cultural context and scalability in addressing this global problem.

Students will use pre-recorded 6-8 minute lectures, readings, and online discussion questions on the EdX platform, as well as participate in weekly meetings. During the first two weeks, the focus will be on climate communication, after which students will learn about climate change mitigation and adaptation.

Next Cornell students will use the Drawdown website to identify a climate action they would like to implement themselves and in one of their social networks (e.g., friends, family, club). Drawdown’s top ten actions include managing refrigerants, educating girls, reducing food waste, plant-rich diet, wind energy, and silvopasture. These and the other Drawdown solutions will provide the basis for rich online (with CCOF global participants), small group, and full class discussions about the balance between effectiveness and feasibility of various solutions, given cross-cultural and geographic considerations. Students will draw from the complex contagion, social mobilization, social norms, and social marketing literature to learn about ways to influence individuals to take climate action within social networks. Students will be required to select and implement one Drawdown action and engage with their social networks to implement the action (e.g., limit meat and dairy consumption, reduce food waste, install LED light bulbs). Guided reflections and small group and full class discussions about the climate impacts of, and challenges in implementing, their actions will foster critical thinking.

To prepare students for constructive dialogue across cultures, we will provide training in global online learning skills at the beginning of the semester. Cornell students will have the opportunity to apply these skills in ongoing discussions with CCOF participants. Course instructors will facilitate these discussions using the course discussion board, social media, and real-time meetings (in-person and webinars). Cornell students also will be able to join social media discussion groups led by CCOF participants. In short, we will leverage the affordances offered by CCOF, including participants representing a range of countries, ages, professions, knowledge, and perspectives, to create unique opportunities for cross-cultural discussion and collaboration for Cornell students.

Technology

You will use multiple platforms in the course, so bear with us as we explain...

1. **Weekly assignments—CCOF edX Edge. *Required.*** All weekly discussion board assignments will be completed on the CCOF edX site.
2. **Assessments – Canvas. *Required.*** All grading will be done in Canvas. At least one assignment (the persuasion letter) should be uploaded onto Canvas. All discussion board comments however will be posted on edX Edge.
3. **Climate Change background information—*Climate Change Science Communication, and Action MOOC edX. Optional.*** This is a MOOC with lectures and readings on multiple climate change topics. You can access this site the first week of the course and any time thereafter for background information. Do **NOT** complete assignments on this site. Accessing this site is optional—to build your knowledge as you see fit.
4. **Weekly webinars—Zoom. Optional.** Each Tuesday from 8am-10am, we will be holding webinars for the CCOF fellows. We have short instructor and fellow presentations and small group discussions. These are a great way to learn about fellows' work from different countries around the world—participate when you can fit it into your schedule.
5. **Social Media—CCOF Facebook and WhatsApp groups. Optional.** We will have CCOF Facebook and WhatsApp groups for informal discussions, posting resources, and posting updates. This can be an interesting way to access additional perspectives and resources.
6. **Small group discussions. WhatsApp and Zoom. Optional.** You can use social media and Zoom to hold discussions with your fellow students and CCOF fellows.

CLIMATE SOLUTIONS SYLLABUS

In this three-credit course, you will briefly review the basics of climate science, communication, and mitigation/adaptation. Next you will choose an individual climate change action and implement it yourself and with one of your social networks (e.g., dorm, Instagram followers). Finally, you will write a persuasive letter to a representative or agency on a climate policy. Each week will feature required online discussion responses, as well as small and full group in-person discussions.

Course Requirements

1. Participate in discussion boards. Discussion questions will require students to think critically about Drawdown climate solutions in the US and internationally; climate policies; and how complex contagion, social norms, social mobilization, social marketing, and social media influence climate behaviors.
2. Participate in weekly in-person meetings on Thursdays.
3. Plan and conduct a climate action yourself and with your social networks, and assess the effectiveness and barriers to that action in a final presentation.
4. As part of a team, compile resources to support CCOF fellows.
5. Write a persuasive letter to influence a representative or agency.

GRADE DISTRIBUTION

This class uses team-based learning, cross-cultural communication, and student-directed learning as important ways of learning and student evaluation. The items listed below followed by their weights will form the basis of your grade

Theme	Requirement	Percent of Grade
1. Individual in-class participation (20%)	a. Engage in weekly in person discussions and activities.	10%
	b. Lead a discussion section with a partner	10%
2. Cross cultural communication and collaboration (20%)	a. Engage in online discussion with global fellows (discussion board and webinar).	10%
	b. Collaboratively develop resources with global online fellows' (CCOF) projects.	10%
3. Cornell projects for climate action (45%)	a. Oral presentation on the climate action.	10%
	b. Final assignment on the climate action	15%
	b. Progress deadlines on climate action planning.	15%
4. Persuasive policy letter (15%)	a. Draft a persuasive letter to a representative or agency on an environmental or climate issue.	7.5%
	b. Write a final persuasive letter, integrating comments from the draft.	7.5%

Grade Descriptions

1. Individual in-class participation (20%)

a. Engage in weekly in-person discussions and activities (10%)

This is not a lecture class, rather it is a discussion and active participation seminar. You are responsible for reading the assigned materials before class and coming ready to discuss. We view participation, especially in a course like this, as critical and thus expect you to attend every class. We will excuse you from class if you contact us ahead of time and have a legitimate excuse. You will need to confirm our arrangement by an email sent to both instructors.

b. Lead a discussion section with a partner (10%)

Everyone will sign up to lead a discussion with a partner this semester. The discussion will focus on the weekly readings. You should provide a brief summary of the readings – something like 2 or 3 bullet points per reading – and relate them to previous readings and class discussions. Highlight the take home messages of each reading. Then facilitate a discussion with questions that stimulate synthesizing the materials and reflection on how to apply the materials to students' climate actions. You may find it useful to have the list of questions in front of you when leading a discussion, as well as your own answers to the questions. Since this is team-led, each of you can have questions for each article, or you can split the readings – it's your choice.

2. Cross-cultural communication and collaboration (20%)

a. Engage in online discussion with global fellows (discussion board and webinar) (10%)

As a cross-cultural course, where Cornell students and global fellows enrich each other's conversations, it is critical that you engage in thoughtful online discussions on edX Edge. Each week you will be given two-three discussion prompts and be asked to respond to at least one other student or fellows' post. Your grade for the discussion board will be based on whether your is a provocative response, sufficient response, or superficial response to the Discussion Board prompts. A "provocative response" goes beyond answering the prompt, attempts to stimulate further discussion and thought, and applies concepts from video lectures and readings in novel ways. A "sufficient response" provides most of the information required by the prompt but does not offer further analysis, and applies concepts from video lectures and readings but does not directly reference them. A "superficial or incorrect response" provides obvious information without further analysis and lacks depth; it may not accurately address the prompt and may be rambling or inconsistent and has no obvious connections to lectures and readings. If you are able there is also a weekly webinar via Zoom on Wednesdays at 9am EST for you to work with the online fellows. Participation in these zoom meetings will help you complete the project below.

b. Collaboratively develop resources with global online fellows' (CCOF) projects (10%)

To facilitate learning about alternative climate actions, you will work with one or more fellows to understand the greatest challenges or barriers that they have faced in implementing their action, then collaboratively decide on strategies to resolve those issues. Your role will be to support CCOF fellows, but also learn from them while providing resources on climate solutions and strategies. For example, you might research methods for tree planting or changing food traditions, depending on which actions the fellows have chosen. Please feel free to be in touch with the instructors if you are unsure which direction to take. You will be asked to submit the name of the fellow(s), the barriers, and the list of solutions/resources with a brief description. This should be submitted on Canvas as well as on Facebook for fellows. Times New Roman, 11pt font, 1.5 spacing, and between a half a page and two pages of resources, i.e. 100 words to 750 words)

3. Cornell projects for climate action (45%)

You will each be part of a semester-long student-led project on a climate action. The purpose of the projects is to allow you to work together and apply the principles and social science literature learned in class to climate issues. You will work throughout the semester complete this project, by yourself or in a team, which may include outside literature review, observations from the community, an oral presentation, etc. You will present your results and outcomes to the class at the end of the course. Your grade will include:

a. Oral presentation on the climate action (10%)

You will give a final project oral presentation to Cornell Students and CCOF Fellows about your project at the end of the semester. This should focus on the content of the problem that you are addressing, your rationale for choosing the action you did, how it was adapted, and what were the lessons learned from implementing the action. We are open to more creative ways of demonstrating your project (e.g. a StoryMap, a video); please check with us in advance.

b. Final assignment (15%)

You will produce final product related to your climate action that explains (a) what problem you are addressing and justification for your climate action; (b) the methods and steps by which how you approached this issue; (c) any demonstrable results and (d) final

recommendations to others interested in applying this climate action. This can include a photos, maps, tables, illustrations, that are suitable for posting online as a PDF, video, StoryMap or other type of product. See instructors beforehand with any questions.

c. Progress deadlines on climate action planning (10%)

In “real-life” working situations, you are held accountable to your boss or some organization or entity for which you provide a service. Often, on top of specific deliverables (like reports and presentations), you are required to keep track of what you did and expect to do in a given time period. This is also a good way to track your own challenges, methods, and progress. You will have four progress deadlines mostly at the end of the semester. Your progress deadlines should have information on what you did the previous week, and what you expect to do in the upcoming week(s).

4. Policy persuasive letter (15%)

a. Draft a persuasive letter to a representative or agency on a climate issue (7.5%)

In this assignment you will write a draft 2-page persuasive letter about a climate policy issue. In any policy conflict, advocates on all sides of an issue voice preferences and present evidence to persuade decision makers about choices. Public participation in policymaking is extremely important. You will need to make a clear, concise, and persuasive argument in support of a particular action or decision (see handout). You will be asked to bring the draft to class for comments from your peers. On Canvas you will submit your draft along with a paragraph at the beginning with your questions, comments, where you think the letter is strong, and where you think you need to do more work. Additionally, you will be expected to give comments on your peers’ persuasive letters.

b. Write a final persuasive letter, integrating comments from the draft (7.5%)

In the final letter, we expect that you will have integrated all relevant comments from your peers and the instructor. You will be graded on whether you have made a clear argument using at least two pieces of evidence to support your argument (see grading rubric), and whether you have integrated the comments as suggested. We encourage you to make your voice heard and actually email or mail your letter to the decision maker, but this is not required and will not impact your grade (Format: Times New Roman, 11pt font, 1.5 spacing, ~750 words).

Late Policy. Assignments should be submitted before Thursdays before class at 2:30PM, unless otherwise specified. No late assignments will be accepted. If there are documented emergencies or illnesses, or you anticipate other challenges, please discuss with us in advance.

Course Participation. One of the most important benefits of online learning is the opportunity to meet and support colleagues. Please share your thoughts about course materials, your practices, your successes, and challenges you have faced when dealing with climate change issues. Visit the Edge edX Discussion Boards (required) and course Facebook and/or WeChat group (optional) often and comment on your fellow participants’ posts.

Academic Integrity Policy. All students are expected to adhere to the University’s Code of Academic Integrity, which states that any submission of work by a Cornell student for academic credit indicates that the work is the student’s own. (<http://cuinfo.cornell.edu/Academic/AIC.html>). All outside assistance should be acknowledged and truthfully reported in all circumstances. Students who violate the code will be given a grade of zero for the assignment and/or a failing grade for the course.

Course Timeline
(Subject to minor changes)

Wk	Topic	Class	Online lectures, discussions, and readings
A 8/29	Introduction to Class and to Climate Change Science and Communication	<u>Discussion:</u> Introductions and syllabus. (XS/MK)	<ol style="list-style-type: none"> <u>Explore</u> the Canvas and edX Edge course sites. <u>Video lectures and readings.</u> Explore the <i>Climate Change Science, Communication, and Action</i> MOOC and access lectures and readings that you need to understand climate change basics. Particularly, read: <ol style="list-style-type: none"> IPCC, 2013: Summary for Policymakers. In: <i>Climate Change 2013: The Physical Science Basis</i>. Available at: https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_SPM_FINAL.pdf Figueres et al. 2017. Three years to safeguard our climate. <i>Nature Communications</i>. https://www.nature.com/news/three-years-to-safeguard-our-climate-1.22201 <u>Discussion.</u> Complete one post and comment on at least 2 other people's posts on CCOF-F19 Edge edX Discussion Board for CCOF Week 1. <ol style="list-style-type: none"> <u>Post</u>--Introduce yourself. Write your introduction post on the Discussion Board (Note that Cornell and CCOF participants use the same Discussion Board in Edge EdX, so while all of you live in Ithaca and go to Cornell, you will see a variety of responses from CCOF fellows starting September 10.) Please write no more than two paragraphs. In your post, include your name, your city/country, and name of your organization/school, and tell us a few sentences about your work or school, why you are taking this course, and what inspires or interests you in climate change. Describe which climate change issues are most pressing to you. <u>Comment</u> on two other posts. Write two comments on the Discussion Board for any two other course participants. You can welcome them, or make supportive comments and ask polite questions about their work and experiences.
B 9/5	Climate Change Communication	<u>Discussion:</u> Moving the debate from 'is it real' to 'what to do.' (XS) <u>Due:</u> Bring in something of importance to you that connects to climate change. <u>Activity.</u> (XS)	<ol style="list-style-type: none"> <u>Video lectures</u> <ol style="list-style-type: none"> Climate Change and Public Opinion in the US. Jonathon Schuldt Climate Change and Risk Perception. Jonathon Schuldt Climate Change and Global Public Opinion. Anne Armstrong <u>Readings</u> <ol style="list-style-type: none"> pp. 5-15 in <i>Connecting on Climate: A Guide to Effective Climate Communication</i>. http://ecoamerica.org/wp-content/uploads/2017/03/connecting-on-climate.pdf Leiserowitz, A., & Howe, P. (2015). Climate Change Awareness and Concern in 119 Countries. https://www.nature.com/articles/nclimate2728 summary at https://climatecommunication.yale.edu/publications/analysis-of-a-119-country-survey-predicts-global-climate-change-awareness/ Climate Chat. How to Explain the Science of Climate Change. http://www.theclimatechat.org/explaining-the-science <u>Discussion Board</u> <ol style="list-style-type: none"> Climate and identity. "Many climate communicators erroneously believe that the main factor shaping people's engagement with climate change is their level of understanding of the science behind it. The

			<p>latest social science research, however, suggests quite a different story. People interpret new information through the lens of their past experiences, knowledge, and social context” (EcoAmerica Report. p. 6). Think about past climate conversations you have had. How might you change your conversations in light of this point--that identity is a key factor in shaping climate change engagement?</p> <p>b. Climate perspectives. Talk to several friends or family members about climate change. What is their level of concern and what, if anything, are they doing to address climate change (e.g., political engagement, eating less meat, avoiding thinking about it)?</p>
1. 9/12	Climate Change Mitigation and Adaptation	<u>Cross cultural Workshop:</u> Guest: Annie Armstrong	<p>1. <u>Video lectures.</u> Watch these video lectures on EdX.</p> <ol style="list-style-type: none"> Climate Change Mitigation Climate Change Adaptation Climate Justice – Annie Armstrong. <p>2. <u>Readings</u></p> <ol style="list-style-type: none"> NASA. (2019). "Global Climate Change: Mitigation and Adaption." from https://climate.nasa.gov/solutions/adaptation-mitigation/ Adger, W. N., Huq, S., Brown, K., Conway, D., & Hulme, M. (2003). Adaptation to climate change in the developing world. <i>Progress in Development Studies</i>, 3(3), 179-195. Parks, B. C., & Roberts, J. T. (2006). Globalization, vulnerability to climate change, and perceived injustice. <i>Society and Natural Resources</i>, 19(4), 337-355. Search for and read information about climate change impacts, vulnerabilities, and efforts to address climate change in the city, state, or country you are from, or at Cornell. You can do an internet search for "Climate change in [insert city, state, or country name]." You might also search for information about your country or city on the following websites: United Nations Development Program - Climate Change Adaptation; UN REDD Program; ICLEI - Local Governments for Sustainability; Green New Deal; NY State Climate Leadership and Community Protection Act (codifies goal to reach net-zero emissions by 2050); Cornell Climate Action Plan; <i>World Bank Climate Knowledge Portal – Check out the vulnerability, impacts, and adaptation by country.</i> https://climateknowledgeportal.worldbank.org <p>3. <u>Discussion Board.</u> Complete two posts and comment on at least 2 other people’s posts on CCOF-F19 Edge edX Discussion Board. NOTE: This is week 1 for CCOF. Fellows will be posting their introductions, as well as on the two questions below. Read over the fellows’ introductions and welcome them to the fellowship!</p> <ol style="list-style-type: none"> Introduce yourself to the fellows. See week A. (You can copy and paste your earlier introduction to this week’s discussion board.) Local climate impact. Local climate action. Describe what mitigation and what adaptation actions are being taken by government, NGOs, universities, and the business sector where you live or where you are from. Consider who are the vulnerable communities in this area? Specify which actions are mitigation and which are adaptation, who are these likely to affect, are vulnerable populations considered? Include citations or links to websites from where you found information. Local climate actions. Describe what mitigation and what adaptation actions are being taken by government, NGOs, universities, and the business sector. Specify which actions are mitigation and which are adaptation and which are both.

9/18	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
2. 9/19	Drawdown Solutions	<p><u>Discussion:</u> Drawdown Solutions (MK)</p> <p><u>Activity:</u> Forming teams and team work. (XS)</p> <p><u>Activity:</u> Discussion sign ups. (XS)</p>	<ol style="list-style-type: none"> 1. <u>Video Lectures</u> <ol style="list-style-type: none"> a. Project Drawdown. 2018. Paul Hawken. https://www.youtube.com/watch?v=p-TaKwkKq60 b. Drawdown Actions. Marianne Krasny. 2. <u>Readings</u> Explore the <i>Drawdown website</i> and Falk et al report to learn about climate solutions. Pay attention to the sources of information Drawdown and the Climate Action Roadmap use to prioritize or quantify the impact of proposed solutions or actions. <ol style="list-style-type: none"> a. Drawdown. (n.d.). "Solutions." from https://www.drawdown.org/solutions. b. Falk, J., O. Gaffney, A. K. Bhowmik, C. Borgström-Hansson, C. Pountney, D. Lundén, E. Pihl, J. Malmodin, J. Lenhart, K. Jónás, M. Höjer, P. Bergmark, S. Sareen, S. Widforss, S. Henningsson, S. Plitt and T. Shalit (2018). Exponential Climate Action Roadmap. Sweden, Future Earth: 108. https://exponentialroadmap.org/ 3. <u>Discussion Board. Complete two posts and comment on at least 2 other people's posts</u> on CCOF-F19 Edge edX Discussion Board. <ol style="list-style-type: none"> a. Drawdown. How does Drawdown prioritize/quantify the impacts of their list of climate solutions? Do you think the information they use is solid? Why or why not? Might they use additional information? b. Your action. Briefly state the climate actions you are interested in pursuing with your network. <i>Why did you choose these actions?</i> For example, are they important in context of your country? Are they something that you can readily do? Would you be able to devise a strategy to engage your social network in these actions? Other reasons? c. Action plan. Please post your action plan using the following template on EdX Edge. Fill in as much as you can; you will have a chance to revise the plan as you learn more. <p><i>Drawdown solution:</i></p> <p><i>Changes to plan based on readings/discussions (answer each week starting week 3)</i></p> <p><i>Context</i></p> <p>What are the demographics of the group you are hoping to influence?</p> <p>Where do they usually get their information?</p> <p>Are you someone they trust?</p> <p>What kind of incentives or recognition might be important to them?</p> <p><i>Barriers</i></p> <p>What barriers will you and your group face in trying to implement your action?</p> <p><i>Personal implementation</i></p> <p>How you will implement the solution personally?</p> <p><i>Face-to-face implementation</i></p> <p>What face-to-face meetings will you have, if any?</p> <p><i>Social media implementation</i></p> <p>How will you use social media to mobilize these actions? (e.g., a contest, a one-week activity)</p>

			<p>What social media will you use? What is the social media group, if any, that you will try to influence? (e.g., Facebook friends, work WeChat group)</p> <p>Assessment</p> <p>How will you know if you influenced people to adopt your climate action? How will you measure any changes in your network's carbon footprint?</p>
9/25	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
3. 9/26	Social networks and spread of behaviors	<p><u>Discussion</u>: Social networks. (MK)</p> <p><u>Workshop</u>: If time, critical thinking for small groups (XS)?</p>	<ol style="list-style-type: none"> <u>Video lectures</u> <ol style="list-style-type: none"> Social networks and climate behaviors. Marianne Krasny. How Behavior Spreads: The Science of Complex Contagions. Damon Centola https://www.asc.upenn.edu/news-events/annenberg-video/faculty-videos/how-behavior-spreads-science-complex-contagion <u>Readings</u> <ol style="list-style-type: none"> Centola, D. (2019). "The truth about behavioral change." MIT Sloan Management Review 60(2): 1. https://search.proquest.com/docview/2161593928?accountid=10267 Popp, T. 2019. The virality paradox. The Pennsylvania Gazette. Mar/Apr: 42-49. http://thepenngazette.com/the-virality-paradox/ Networks Dynamics Group. https://ndg.asc.upenn.edu/ (Explore this website for additional information on complex contagion and behavior change) <u>Discussion</u>. Complete two posts and comment on at least 2 other people's posts on CCOF-F19 Edge edX Discussion Board. <ol style="list-style-type: none"> Diffusion of behaviors. In Centola's <i>The truth about behavior change</i>, he offers four explanations for why behaviors diffuse through small networks with strong ties rather than large networks with weak ties. Please reflect on each of these mechanisms as applied to what you have observed about climate change or other environmental behaviors. Complex contagions application. How might you apply Centola's work on complex contagions to your climate network action? How large is your network? How tightly connected are its members? Action Plan. Please repost your action plan (copy and paste from last week) with any changes made as a result of readings, the webinar, and discussions in your small group. Explain BRIEFLY the changes you are making at the top of your answer.
10/2	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
4. 10/3	Social mobilization	<p><u>Team 1 leads class discussion on PANIC (social mobilization) and complex contagion.</u></p>	<ol style="list-style-type: none"> <u>Video lecture</u> <ol style="list-style-type: none"> Social mobilization. Marianne Krasny <u>Readings</u> <ol style="list-style-type: none"> Rogers, T., N. J. Goldstein and C. R. Fox (2018). "Social Mobilization." Annual Review of Psychology 69(1): 357-381. https://www.annualreviews.org/doi/full/10.1146/annurev-psych-122414-033718

			<ul style="list-style-type: none"> b. Sheppard, S., D. M. Iype, S. Cote and J. Salter (2015). Special Report – A Synthesis of PICS-Funded Social Mobilization Research. Victoria, BC, Pacific Institute for Climate Solutions. https://pics.uvic.ca/sites/default/files/Soc.%20Mob.%20Report%20_0.pdf c. Sussman, R., R. Gifford and W. Abrahamse (2016). “Social Mobilization: How to Encourage Action on Climate Change.” Victoria, BC, Pacific Institute for Climate Solutions: 20. https://pics.uvic.ca/research/publications/white-papers (scroll down to 2016.) NOTE: This is a 20-page report; Rogers et al 2018 reference goes into social mobilization in more depth. <p>3. <u>Discussion. Complete two posts and comment on at least 2 other people’s posts</u> on CCOF-F19 Edge edX Discussion Board.</p> <ul style="list-style-type: none"> a. PANIC and Complex Contagion. How do the PANIC principles relate to the social networking/complex contagion explanations and recommendations? Are they saying the same thing using different language? Do they add to each other? b. Social mobilization principles application. The Rogers reading proposes five guiding principles for social mobilization, which the authors summarize as “PANIC.” Take one or more of the PANIC principles and apply them to your action planning. (For example, under “N” or “Normative,” they suggest reminding people of shared values and beliefs about how a group behaves, and under “C” or “Connected,” they talk about influential people in a social network. How might these or other PANIC principles be applied to your action? Please state what principle(s) you are applying in your answer on Edge edX. c. Action Plan. Please repost your action plan with any changes made as a result of readings, the webinar, and discussions in your small group. Explain BRIEFLY the changes you are making at the top of your answer.
10/9	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
5. 10/10	Social norms	Team 2 leads class <u>discussion</u> about social norms (with reference to social mobilization and complex contagion).	<ul style="list-style-type: none"> 1. <u>Video Lecture</u> Social influence and norms. Xoco Shinbrot 2. <u>Readings</u> <ul style="list-style-type: none"> a. Cialdini, R. (2001). Harnessing the science of persuasion. Harvard Business Review October, 2001: 10. www.coachfinder.club/downloads/Influence%20by%20Cialdini.pdf b. Nolan, J. M., P. W. Schultz, R. B. Cialdini, N. J. Goldstein and V. Griskevicius (2008). Normative Social Influence is Underdetected. Personality and Social Psychology Bulletin 34(7): 913-923. c. Frantz, C. M., & Mayer, F. S. (2009). The emergency of climate change: Why are we failing to take action? Analyses of Social Issues and Public Policy, 9(1), 205-222. 3. <u>Discussion. Complete two posts and comment on at least 2 other people’s posts</u> on CCOF-F19 Edge edX <u>Discussion Board.</u> <ul style="list-style-type: none"> a. Social norms. What injunctive, descriptive, and/or trending social norms influence your climate or other environmental behaviors?

			<p>b. Social norms application. How will you apply what you learned about social norms to your climate action?</p> <p>c. Action Plan. Please repost your action plan with any changes made as a result of readings, the webinar, and discussions in your small group. Explain BRIEFLY the changes you are making at the top of your answer.</p>
10/16	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
6. 10/17	Social marketing	<p><u>Discussion.</u> What are social marketing strategies? (XS)</p> <p><u>Activity.</u> Design a social marketing strategy.</p>	<ol style="list-style-type: none"> 1. <u>Video Lecture</u> Social marketing. Xoco Shinbrot 2. <u>Readings</u> <ol style="list-style-type: none"> a. McKenzie, M. (2010). Fostering Sustainable Behavior: Community-based social marketing. from http://www.cbsm.com/book/preface. <i>Note that you can download McKenzie Mohr's book on social marketing on this site. Look at commitments, norms, prompts and incentives specifically.</i> b. Corner, A. and A. Randall (2011). Selling climate change? The limitations of social marketing as a strategy for climate change public engagement. <i>Global Environmental Change</i> 21(3): 1005-1014. c. Weinreich, N. (n.d.). Supercharge youth social impact: Using social marketing for behavior change. Weinreich Communications. https://socialmarketingu.com/ebook 3. <u>Discussion.</u> Complete two posts and comment on at least 2 other people's posts on CCOF-F19 Edge edX <u>Discussion Board.</u> <ol style="list-style-type: none"> a. Social marketing. What social marketing campaigns have you seen influence people's climate or other environmental behaviors? If you are not personally familiar with an example, search for one on the internet. Briefly describe the campaign target behavior, audience, and strategies. b. Social norms application. How will you apply what you learned about social marketing to your climate action? Talk to members of your target audience and ask about the barriers and benefits to engaging in the behavior. What are those barriers and what strategies might you use for overcoming them? What potential repercussions or boomerang effects would you expect if any? How would you address them? c. Action Plan. Please repost your action plan with any changes made as a result of readings, the webinar, and discussions in your small group. Explain BRIEFLY the changes you are making at the top of your answer.
10/23	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
7. 10/24	Social media and behavior change	<p><u>Team 3 leads class discussion</u> about social media and behavior change.</p>	<ol style="list-style-type: none"> 1. <u>Video Lectures</u> <ol style="list-style-type: none"> a. Behavioral Change in the Age of Social Media: Marshall Goldsmith https://www.youtube.com/watch?v=NubcK2eObKE b. Hacking into the power of social networks https://www.youtube.com/watch?v=h_TxLVqAP1Q

			<p><u>2. Readings</u></p> <p>a. Enjolras, B., K. Steen-Johnsen and D. Wollebæk (2013). Social media and mobilization to offline demonstrations: Transcending participatory divides? <i>New Media & Society</i> 15(6): 890-908.</p> <p>b. Young, W., S. V. Russell, C. A. Robinson and R. Barkemeyer (2017). Can social media be a tool for reducing consumers' food waste? A behaviour change experiment by a UK retailer. <i>Resources, Conservation and Recycling</i> 117: 195-203.</p> <p>c. Bedard, S. A. N. and C. R. Tolmie (2018). Millennials' green consumption behaviour: Exploring the role of social media. <i>Corporate Social Responsibility and Environmental Management</i> 25(6): 1388-1396. (Optional)</p> <p>d. Wijaya, S. W., J. Watson and C. Bruce (2018). Understanding empowerment in social media context: lessons from Indonesian migrant domestic workers. <i>International Journal of Web Based Communities</i> 14(2): 172-195. (Optional)</p> <p>e. Zhang, N. A. N. and M. M. Skoric (2018). Media use and environmental engagement. <i>International Journal of Communication</i> 12: 380-403 (Optional)</p> <p>1. <u>Discussion Board</u></p> <p>a. Social media to influence others. Have you ever tried to use social media as a means <u>to mobilize or influence your "friends?"</u> Have you yourself ever <u>been mobilized or influenced through social media?</u> Was there an informational, emotional, or other type of influence? Please briefly describe how you may have influenced others or they influenced you.</p> <p>b. Social media application. How will you apply what you learned this week to your action plan?</p> <p>c. Action Plan. Please repost your action plan with any changes made as a result of readings, the webinar, and discussions in your small group. Explain BRIEFLY the changes you are making at the top of your answer.</p>
10/30	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
8. 10/31	Action plan Implementation	<p><u>Activity:</u> Complete your individual carbon footprint. Use https://coolclimate.berkeley.edu/calculator What surprised you?</p> <p><u>Discuss your action plan.</u></p> <p><u>Discuss how you will assess changes</u></p>	<p>This week, you will start implementing your action plan, based on all that you have learned thus far. We look forward to hearing how it is going in class this week!</p> <ol style="list-style-type: none"> 1. <u>Video Lectures.</u> There are not new lectures this week. 2. <u>Readings.</u> There are no new readings this week. 3. <u>Discussion Board.</u> Please <u>post your final action plan</u> and <u>comment on at least two others' final action plans.</u>

		to your own carbon footprint and others’.	
		<u>Due:</u> Resources for online global fellows.	
11/6	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
9. 11/7	International climate change agreements	<p><u>Discussion:</u> International agreements (XS)</p> <p><u>Activity:</u> Negotiating positions at the Paris Conference of Parties. (XS)</p> <p><u>Introducing:</u> The persuasive letter. (XS)</p> <p><u>Due:</u> Progress deadline #1 (post on Discussion Board)</p>	<p>1. <u>Video Lectures</u></p> <p>a. The Kyoto Convention and the UN Framework Convention on Climate Change. Bianca Gichangi</p> <p>b. The Paris Agreement and Clean Development Mechanisms. Bianca Gichangi</p> <p>2. <u>Readings</u></p> <p>a. University of Copenhagen. 2009. Climate Change – Global Risks, Challenges, and Decisions: A Synthesis Report. Focus on the following section: Key Message 4. Available at:</p> <p>b. Rahm, D. (2010). Chapter 6: Mechanisms for Regulating Greenhouse Gas Emissions. In Climate Change Policy in the United States.</p> <p>c. UN Climate Change. Nationally Determined Contributions, and the UNFCCC NDC Registry</p> <p>3. <u>Discussion Board</u></p> <p>a. Inclusiveness vs. Efficiency. What are the trade-offs between policy inclusiveness and policy efficiency in the current global policymaking process? How can these trade-offs be resolved? Are new forums and approaches needed?</p> <p>b. Corporations. Should corporations play a role, and if so, what role can they play? Are new types of policy instruments – other than a price on carbon – needed? What might these policy instruments be? What types of systems need to be put in place to make this work?</p> <p>c. Justice. Do we share a responsibility for demanding climate justice? Why?</p>
11/13	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
10. 11/14	Influencing US Policy	<p><u>Discussion:</u> How can we be engaged citizens in local, state, and federal US policy? (XS)</p> <p><u>Due:</u> Progress deadline #2 (post on Discussion Board)</p>	<p>This week you will assess your action plan in your networks and we will discuss climate leadership through national and local policies, mechanisms, and forums.</p> <p>1. <u>Video Lectures</u></p> <p>a. Green New Deal. Anne Armstrong</p> <p>b. What is the National Environmental Policy Act? E&E News Explains. Available at: https://www.youtube.com/watch?v=E5YQ0ZvA-rQ</p> <p>c. NEPA Citizen’s Guide. Available at: https://www.youtube.com/watch?v=0DAW0ui0UzU</p> <p>2. <u>Readings</u></p>

			<ul style="list-style-type: none"> a. Brookings Institute. (14 Dec 2018). American climate leadership without American government. https://www.brookings.edu/blog/planetpolicy/2018/12/14/american-climate-leadership-without-american-government/ b. Rosenbaum, W. (2013) Chapter 2: Making Policy: The Process. In: Environmental Politics and Policy. (pp 33-74). c. Rosenbaum, W. (2013) Chapter 10: Climate Change, Domestic Politics and the Challenge of Global Policy Making. In Environmental Politics and Policy. (pp 33-74). d. Green New Deal. Available at: www.congress.gov/116/bills/hres109/BILLS-116hres109ih.pdf <p>3. Discussion Board.</p> <ul style="list-style-type: none"> a. Participation in policy. Climate leadership is occurring at multiple geographic scales, not just internationally, with the participation of multiple sectors including business and citizen involvement. If you live in a country outside the US, what forums exist for citizens to engage in climate leadership in terms of national or local policy making? Search for and read information about participation in environmental policy in the city, state, country you are from. If you live in the US, identify a country of interest where a CCOF fellow is based, and answer the same question: what forums exist for citizens to engage in climate leadership in terms of national or local policy making?
11/20	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
11.11/21	<p>Putting a price on carbon: the costs and benefits of CO2 abatement</p> <p><u>Discussion:</u> What is the role of markets and business in climate solutions? (XS)</p> <p><u>Activity:</u> Peer review of Persuasive Letter. (XS)</p> <p><u>Due:</u></p> <ol style="list-style-type: none"> 1. Draft of your policy persuasion letter, along with any questions for XS. 2. Progress deadline #3 (post on Discussion Board) 	<p><u>1. Video Lectures</u></p> <ul style="list-style-type: none"> a. Carbon Markets and the Paris Agreement. Bianca Gichangi b. Carbon Markets and their Mechanisms. Bianca Gichangi c. Cap and Trade: What is it? [and Carbon Taxes] EcoGeek. Available at: https://www.youtube.com/watch?v=oqJO8HwxTkg <p><u>2. Readings</u></p> <ul style="list-style-type: none"> a. CBO. (2008) Policy Options for Reducing CO2 Emissions. (Read the 'Summary' section). b. McKinsey. 2013. Pathways to a low-carbon economy, version 2. Read summary, focus on abatement curve. c. John Delaney. 2019. Carbon fee and dividends. d. NRDC Action Fund. (22 Feb 2019). Climate Change and the 2020 Presidential Candidates: Where do they stand? <p>3. Discussion Board. Please post your responses and comment on at least two others' posts.</p> <ul style="list-style-type: none"> a. Policy Costs and Benefits. One of the major criticisms of carbon taxes is that it is highly unpopular and costly to consumers. Carbon taxes have caused mass protests like the Yellow Vest Movement in France. Several politicians in the US including Sen. Delaney have proposed a dividends program. Do you see this as a solution? Thinking about the costs and benefits of the carbon tax and dividends proposal and Cap-and-Trade programs, which do you see as a more successful way forward for greenhouse gas reduction. b. Policy and individual action. What do you think about the role you might be able to play in individual citizen (or business person if you are in business) vs policy solutions to the climate crisis? c. Action Plan Implementation. How is the implementation of your plan going? Are you making any adjustments based on feedback and what you have observed? 	

11/27	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
12. 11/28	Thanksgiving break		No new assignments enjoy your break!
12/4	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
13. 12/5	What we use: The circular economy	<p><u>Discussion:</u> How can we our lives with a circular and sharing economies built in? (XS)</p> <p><u>Activity.</u></p> <p><u>Due:</u></p> <p>1. Progress deadline #4 (post on Discussion Board)</p>	<p>1. <u>Video lecture</u></p> <p>a. Climate change and plastics. Bethany Jorgensen</p> <p>b. Circular and sharing economies. Bethany Jorgensen</p> <p>c. The circular economy: It's the way forward. Available at: https://www.youtube.com/watch?v=IK00v_tzkCI</p> <p>2. <u>Readings</u></p> <p>a. Stahel, Circular economy, Nature 531 (7595): 435-438 (24 March 2016). https://www.nature.com/news/the-circular-economy-1.19594</p> <p>b. The Ellen MacArthur Foundation. https://www.ellenmacarthurfoundation.org/circular-economy/what-is-the-circular-economy</p> <p>c. Korhonen et al. (2018). Circular Economy: The Concept and its Limitations, Ecological Economics 143: 37-46.</p> <p>d. Mi & Coffman (2019) The sharing economy promotes sustainable societies. <i>Nature Communications</i> 10.</p> <p>3. <u>Discussion Board</u></p> <p>a. Circular Economy Challenges. What are the challenges to implementing a circular or sharing economy on an individual, business, and worldwide scale?</p> <p>b. Action Plan Implementation. How is the implementation of your plan going? Are you making any adjustments based on feedback and what you have observed?</p>
12/11	Participate in Climate Change Online Fellows Webinar, Zoom link on EdEx Edge (optional but encouraged)		
14. 12/12	Envisioning a new future and climate leadership	<p><u>Discussion:</u> Climate leadership (XS/MK)</p> <p><u>Discussion:</u> Reflect on what you've learned in this class and evaluations</p> <p><u>Due:</u> Final Persuasive Letter</p>	<p><u>Video lecture:</u> None</p> <p><u>Readings:</u> TBA.</p> <p><u>Discussion Board:</u> Individual, network, policy, and other actions. Reflect on your personal and network climate behavior implementation and your attempt to influence policy. Consider other potential ways to address the climate crisis like protest or career choices. What do you think is the best path for you to address the climate crisis? Please explain how you can have influence.</p>

12/11	Participate in Climate Change Online Fellow Webinar, Zoom link on EdEx Edge (optional but encouraged)		
Study Week or Exam Week	Final Presentations	<u>Due:</u> 1. Oral presentation 2. Final assignment	<u>Final Oral Presentation.</u> Students will complete a short (10 min plus 5 minutes for questions) presentation of their action plan results and reflections during exam period. Include not only what you did during class but what you might do in the future. Think about different kinds of behaviors and actions (plant-rich diet vs writing letter to policy maker) and the relative advantage/disadvantage of different sorts of actions.