

CAT 3: Our Future Climate

Envisioning Our Collective Future Spring 2022

Course website: Canvas (http://canvas.ucsd.edu)

Lecture Meetings: TuTh 9:30-10:50am in MOSAIC 0113

Lecture Recordings https://podcast.ucsd.edu/
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Required Texts: They Say, I Say (CAT Edition)

<u>Theses on the Philosophy of History</u> (Walter Benjamin 1942)

<u>A Few Rules for Predicting the Future</u> (Octavia Butler 2000)

All We Can Save (Johnson & Wilkinson 2020)

Additional Resources: https://bit.ly/3DnNRNT

Library Course Reserves: TBD

Individual Assignments: Pre-lecture weekly check-ins (5%)

Discussion prompts (10%) Annotated bibliography (10%) Speculative essay (15%) Section participation (10%)

Collaborative course project (50%)

Engagement activities (+3% extra credit)

Class Meeting Schedule

Lectures: TuTh 9:30am-10:50am in MOSAIC 0113 (all lectures will be recorded)

Discussion Sections: TuTh during the following times:

Section number	Time (TuTh)	Room	Instructor
A01	8-8:50 AM	HSS 2305B	Shelly Shi
A02	11-11:50 AM	CENTER 223	Ziyang Li
A03	12-12:50 PM	CENTER 223	Ziyang Li
A04	1-1:50 PM	CENTER 224B	Drew Kerr
A05	2-2:50 PM	CENTER 224B	Drew Kerr
A06	3-3:50 PM	CENTER 224B	David Husson
A07	4-4:50 PM	CENTER 223	Allison Evans
A08	5-5:50 PM	CENTER 223	Allison Evans
A09	8-8:50 AM	CENTER 208	Milana Kostic
A10	11-11:50 AM	CENTER 208	Milana Kostic
A11	12-12:50 PM	CENTER 208	Shelly Shi
A12	1-1:50 PM	CENTER 224A	Allison Evans
A13	2-2:50 PM	CENTER 224A	Manel Palos Pons
A14	3-3:50 PM	CENTER 224A	Manel Palos Pons
A15	4-4:50 PM	CENTER 224B	David Husson
A16	5-5:50 PM	CENTER 202	David Husson

Weekly Class and Assignment Schedule

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Class meetings		Lecture (9:30am) Discussion Section (various)		Lecture (9:30am) Discussion Section (various)	
Assignment Deadlines		Pre-lecture checkins (9:30am)		Discussion prompts (10:00 pm)	Individual and collaborative assignments (10:00pm) Engagement (10:00pm Wk 10)

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Course Description

Overview

Global climate change is a reality. This is the consensus conclusion of scientists, policy makers, and people who have experienced climate change through extreme weather events, droughts and fires, rising seas, disappearing glaciers, and a notable loss of biodiversity. Moreover, the research shows that these changes to our climate are driven by human activities, in particular the release of carbon dioxide (CO₂) and other gasses into the atmosphere that is driving warming through the greenhouse effect. How do we address these changes? Who is and will be impacted? Can we reverse climate change, or do we need to adapt to a warmer world? Do we need to fundamentally change our energy-intensive society, or is there a technological solution that will allow us to grow through this crisis? Are we too late to "bend the curve"?

In this course, we will evaluate the evidence, causes, and conditions of global climate change. This exploration will be anchored in the scientific literature and consensus findings reported by the Intergovernmental Panel on Climate Change (IPCC); social scientific studies of cultures and communities experiencing climate crisis; the psychology, politics, and economics of climate change; art, literature, and popular media reflecting different views of our future climate; and studies the explore how we convince ourselves and each other of hard truths. We will use this information to imagine our collective future in a changing world in the context of different climate change scenarios. How do we as individuals, communities, cultures, and humans respond and react to our changing world?

We will explore these themes through primary scientific literature, policy reports, popular articles, poetry, and science fiction writing; audio podcasts; videos and animations; visual and digital artwork; and films. Some of these will be required sources to anchor our exploration of climate change and related issues; others are optional sources that will be useful for your synthesis projects. The course will culminate in a creative collaborative project that engages you in imagining your future world through the lens of a changing climate.

Weekly Lecture Topics

Week	Topic
1 (March 28-April 1)	Foundations: What is Climate Change?
2 (April 4-8)	The Science of Climate Change
3 (April 11-15)	Welcome to the Anthropocene
4 (April 18-22)	<u>Climate Justice</u>
5 (April 25-29)	The Wizard & The Prophet

6 (May 2-6)	I Just Don't Believe It: Climate Change Denial
7 (May 9-13)	Climate Activism
8 (May 16-20)	Politics and Policy
9 (May 23-25)	Desperate Measures
10 (May 30-June 3)	What is Your Future?

Learning Goals

This course aims to address the following learning goals:

Climate Change Science

- Understand the consensus scientific evidence of our changing climate, and how we know that these changes are due to human activities.
- Understand the implications of current and future climate change on the environment, public health, social and political structures, human cultures, and the greater biosphere.
- Critically evaluate adaptation and mitigation strategies for future climate change.
- Critically evaluate the representation of our future climate in the popular media.
- Identify and explore present-day actions we can take as individuals and communities to address climate change.
- Synthesize information from diverse resources to imagine a logically-constructed view of the future under various assumptions of future climate change.

Research & Writing

Building off what you learned in CAT 1 & 2:

- Understand and practice effective research, including developing research questions.
- Use research to make an effective multimodal argument towards a specific audience.
- Engage with cultural products, including art/popular culture, as the result of research but also as legitimate objects of research.
- Develop an independent research project by finding and evaluating appropriate sources, composing research genres such as annotated bibliographies and literature reviews, following a proposal process, and implementing revision.
- Effectively collaborate with peers in the process of research and development of a multimodal project.

Core Concepts

Our course will center around the following core concepts

- Resistance/Revolution
- Interdisciplinarity
- Art as argument

- Research as a process
- Interpersonal Communication

Assignments

Your engagement and learning in the course will be assessed through a series of regular weekly individual assignments, and a collaborative synthesis project. The breakdown of these assignments and course grade weighting are as follows:

Assignment	Grading Weight
Weekly pre-lecture check-ins Due before Tuesday lectures	5% One (1) lowest assignment dropped
Weekly discussion prompts Due Thursdays at 10pm	10% One (1) lowest assignment dropped
Annotated Bibliography Due Friday April 15 at 10pm (Week 3)	10%
Speculative Essay Due Friday May 6 at 10pm (Week 6)	15%
Section Participation Assigned weekly by TA	10%
Collaborative Course Project: Envisioning our Future Climate Draft due Friday May 20 at 10pm Final due Tuesday June 7 at 10pm Reflection Final due Tuesday June 7 at 10pm	50% Collaborative project of teams up to three (3) Includes proposal/pitch (10%), literature review (10%), project design document and materials (20%), and reflection (10%)
Engagement participation Up to three (3) pre-approved activities with written reflections Due by Friday June 3 at 10pm	up to 3% Extra Credit

Letter Grade Scales

The Culture, Art, and Technology Program of Sixth College makes use of a set grading schema, which means that certain letter grades correspond to specific numerical grades. This schema prevents grade inflation and point bargaining. All graded assignments, and the final course grade, will be assessed according to the following grading schema:

Assignment Type	Excellent	Good	Adequate	Developing	Incomplete or Inappropriate
	A+ = 97	B+ = 87	C+ = 77		
Major	A = 95	B = 85	C = 75	D = 65	F = 50
	A- = 91	B- = 81	C- = 71		
Minor	10	9	8	7	5
Complete/ Incomplete	10		(0	

For purposes of **final course grades** as calculated by Canvas's gradebook the following ranges will determine letter grades submitted to eGrades:

- o A+ (96.6-100)
- o A (93.6-96.5)
- o A- (89.6-93.5)
- o B+ (86.6-89.5)
- o B (83.6-86.5)
- o B- (79.6-83.5)
- o C+ (76.6-79.5)
- o C (73.6-76.5)
- o C- (69.6-73.5)
- o D (60-69.5)
- o F (0-59.9)

Failure to turn in the major writing assignments will result in a failure of the course, regardless of numerical grade. Final grades will NOT be rounded up; please do not ask for this.

Individual Assignments

Weekly pre-lecture check-ins (5%)

These are short multiple-choice quizzes aimed at ensuring preparation for each week's lectures. You will have up to 5 attempts to complete these, so as long as you do the readings and keep up with the assignments this should be an easy 100%. Check-ins are accessed on Canvas, and **must be completed before the start of each Tuesday's lecture** (Tuesday 9:30am). There are nine (9) pre-lecture check-ins assigned during the term (weeks 1-9); you are permitted to drop one (1) lowest/missed assignment. There are NO extensions or late-submissions permitted for these assignments.

Weekly discussion prompts (10%)

These are short (150-250 words) reflective writing pieces aimed at further reflection on one or more key topics raised during each week's lectures. Each week will have a specific prompt, and your answer will be evaluated by the instructors on a simple 2-point scale:

- 0 = no response turned in
- 1 = incomplete or partial response reflecting minimal or shallow effort
- 2 = complete response

Discussion prompts are submitted through the Canvas Discussion Board and are **due on Thursdays at 10pm**. There are ten (10) discussion prompts assigned during the term; you are permitted to drop one (1) lowest/missed assignment. Late submission of discussion prompts will be deducted following the <u>late assignment policy</u>.

Annotated Bibliography (10%, Week 3)

The annotated bibliography (see <u>They Say I Say</u> Chp 28) is a summary of source research, intended for preparation for your collaborative project. It provides the basis for your project design, perspective, motivation, etc. It is a standard method for research in all fields.

In preparation for the course project, you will each develop an annotated bibliography for five (5) *significant* resources, including at least two (2) primary peer-review research articles. A significant resource means one that contains a clear grounding in research studies and includes citations to (other) primary sources. Textbooks, online media news, and Wikipedia *don't count*.

The format for the Annotated Bibliography is as follows: for each source:

- Full citation (MLA format)
- Descriptive paragraph (100-150 words each), introducing the work and its argument(s), the main points/examples, and how this source informs your project design and development

Templates for the Annotated Bibliography are provided in They Say I Say Chp 28.

The annotated bibliography is due on Canvas on **Friday April 15th at 10pm** (end of Week 3). Late submission of the annotated bibliography will be deducted following the <u>late assignment policy</u>.

Speculative Essay (15%, Week 6)

As part of the development of your project narrative, each student will write a speculative autobiography of someone who lives in the future world envisioned by your project team. This autobiography should be written in the first person from the perspective of that individual (could be your future self, could be someone totally different), and should convey both the physical,

social, and cultural environment of that future time, as well as the lived history of that individual leading to that moment. Your autobiography should be grounded in your and your team's research, and will be assessed on your ability to extrapolate from the present day and to think critically and creatively. These essays may be integrated into the final course project.

The speculative essay consists of two parts:

- Speculative autobiography (400-500 words) as first-person narrative; could include but does not require multimedia elements (e.g., images, video, audio)
- Short design statement (200-300 words) describing motivation and justification of biography elements, including relevant citations (note: this is a warm-up for the design document for the final project)

The speculative essay is due on Canvas on **Friday May 6th at 10pm** (end of Week 6). Late submissions will be deducted following the <u>late assignment policy</u>.

Discussion Section Participation (10%)

Attendance and active participation at *all* section meetings are a *mandatory* component of this course. Attendance policies for lecture and discussion section are described below. Your TA will assign a discussion participation score based on the following rubric:

Excellent (10) - You are well prepared for lecture and section, demonstrated by: having all your materials; consistently contributing to discussion; asking productive questions; listening actively and taking notes; engaging in group work; supporting and respecting other students; respecting TAs, the instructor and course material; attending office hours; coming to lecture and section on time and staying for the entire class time; taking responsibility for any work or material missed if absent; overall proactive.

Good (9) - You are usually prepared for lecture and section, demonstrated by: contributing to discussion; listening actively; engaging in group work; respecting other students; respecting TAs, the instructor, and course material; mostly coming to lecture and section on time and staying for the entire class time; overall responsible.

Adequate (8) - You are inconsistently prepared for lecture and section, demonstrated by: rarely contributing to discussion; missing materials; managing time poorly; working well with others, but unable to contribute fairly; respecting TAs, instructor, and course materials; mostly coming to lecture and section on time and staying for the entire class time; overall, inconsistent.

Developing (7) - You are physically present but mentally disengaged from the course, demonstrated by: never contributing to discussion in lecture or section; consistently coming to class late or leaving early; working well with others, but unable to contribute fairly; failing to develop any relationships with TAs and/or instructor; overall, disengaged.

Unacceptable (5) - You demonstrate through behavior and/or language that you are uninterested in learning; or, alternatively, you are regularly disrespectful of other students, TAs, the instructor, or course material.

Community Engagement (up to 3% extra credit)

During the quarter, there are various events related to climate change that are hosted by campus groups and organizations, and even within our class! These community activities are meant to expand your engagement with climate change science, activism, and relevant art/media. Credit will be given for demonstrated participation and a short (150-250 words) written reflection answering the question: "What did you learn about the themes and topics of this CAT3 course by participating in this event?". Approved activities include:

- Attend one of our screenings of climate-change themed movie, or watch from home; include a screenshot of your favorite moment in the movie with your reflection statement.
 Scheduled screenings are:
 - → TBD
- Participate in a public meetings/events hosted by one of UCSD's climate/environmental organizations: you must attend the full event/at least one (1) hour; include evidence of participation with your reflection statement. Some currently active climate-related campus organizations include:
 - UCSD Green New Deal: https://ucsdgreennewdeal.net/
 - March 30 5-6:30pm: Climate Justice Teach-in & movie screening: RVSP at http://bit.ly/cjteachinucsd
 - UCSD CALPIRG: https://calpirgstudents.org/chapters/uc-san-diego/
 - Student Sustainability Collective: https://studentsustainability.ucsd.edu/
 - Engineers for a Sustainable World: https://eswtritons.wordpress.com/
 - o Intersustainability Council: https://iscucsd.wixsite.com/main/about
 - UCSD Climate Change Review: https://www.ucsdclimatereview.org/
 - Art Exhibition June 3: https://www.ucsdclimatereview.org/events
- Attend a science talk or conference (in person or remote) related to climate change: you
 must attend for at least one (1) hour; include evidence of participation with your reflection
 statement. You can find upcoming talks by visiting the websites of these UCSD/SIO
 centers on climate/environment research:
 - SIO Center for Climate Change, Impacts and Adaptation: https://climateadapt.ucsd.edu/
 - SIO Center for Marine Biodiversity and Conservation: https://cmbc.ucsd.edu/
 - SIO Center For Western Weather and Water Extremes: https://cw3e.ucsd.edu/
 - UCSD Climate Action Lab: https://climate.ucsd.edu/
 - UCSD Deep Decarbonization Initiative https://deepdecarbon.ucsd.edu/
 - UCSD Center for Aerosol Impacts on Chemistry of the Environment: https://caice.ucsd.edu/
 - Food & Fuel for the 21st Century: https://ff21.ucsd.edu/
 - UCSD Center on Global Justice: Climate Justice Initiative: http://gjustice.ucsd.edu/climate-justice/

- Center for Academic Research and Training in Anthropogeny (CARTA): https://carta.anthropogeny.org/
 - **Symposium**: Humans: The Planet-Altering Apes (May 13, 2022): https://carta.anthropogeny.org/events/humans-planet-altering-apes

If there is another event, exhibition, etc. that you'd like to use for your engagement activity, please contact your TA or Prof. Burgasser *in advance*. Engagement reflection write-ups are **submitted to Canvas and are all on the last Friday of the term (June 6 10pm).** There are NO extensions or late-submissions permitted for these assignments.

Collaborative Course Project: Envisioning 2052

Description

The final course project for CAT3 is a multimedia project, in which you will create an **integrated set of digital products** (webpages, blogs, artwork, audio, video, etc.) and a fully **referenced design document** to speculate on what our future world will be as a result of future climate change.

30 years ago, Prof. Burgasser was an undergraduate at UCSD, and climate change was just starting to grow in public awareness - as was climate change denial. At that time, evidence of human-induced changes in sea level, air temperature, and other metrics was uncertain. Today the evidence of human-induced climate change is overwhelming. Then, CO₂ was 355 ppm in the atmosphere; today it is over 415 ppm - 17% higher - and rising. Then, climate change impacts were thought to be long in the future; today, they are imminent, if not already present.

What will the next 30 years bring? In this project, you will envision your future world through a creative multimedia project that integrates critical research with personal narrative from the perspective of your future self. Your project will be framed in the context of one of five Shared Socio-economic Pathway (SSPs) laid out in the IPCC 2021 AR6 Summary Report (see Section B of the Summary for Policymakers): SSP1-1.9, SSP1-2.6, SSP2-4.5, SSP3-7.0, and SSP5-8.5. Each pathway makes predictions for the physical environment of your future world; your project is to delve into the social, political, and economic environment resulting from those conditions. How did we get onto one of these SSPs? What were the impacts of doing so? And what does the world of 2052 look like as a result of taking this path?

This project is a collaborative group project of 2-3 students. As a group, you will decide on the vision of your future world, as well as the multimedia representation of that world you will create. Potential multimedia components may include interviews, diaries, timelines, news articles, blog posts, websites, photographic compilations, classical art forms, a series of short (<3-10 min) or one long (10-20 min) video or audio piece, animations, graphic novel, video game, etc., and possibly a mixture of these components.

The motivation, development, and justification of your project design will be described in a collaborative design document of 1000-1500 words, with draft (due Week 8) and final (due Week 10) versions. In designing your project, you should make significant use of at least eight (8) sources, including at least three (3) primary peer-reviewed sources. These sources will be summarized in a **collaborative literature review document** due Week 7. You will also submit **personal reflection statements** for your draft and final writeups to review your contributions, team efficacy, process, and learning.

Project Components

Group Formation (Week 3)

In sections, you will form groups of 2-3 and will be randomly assigned one of the SSP scenarios. During Week 3, you should meet with your team members to start to speculate on what your future world looks like and how it got to where it is, as well as what your digital project will entail. Note that your individual annotated bibliographies are also due this week, and may involve some of the sources you will use for your project.

Proposal, Pitch, & Peer Review (Weeks 4 & 5)

During Week 4, you will develop your project proposal, which should include the following elements:

- 1. **Overview**: A vision for your future world, summarizing the physical, social, and cultural environment and a brief history leading to that point;
- 2. **Justification**: Describe how your vision is anchored is in your research;
- 3. **Plan**: Describe the plan to develop and complete your digital product(s), including a timeline and team effort assignments
- 4. **Bibliography** (MLA format) of at least five (5) initial sources for your research, of which at least two (2) must be primary sources

Proposal length is 250-500 words (1-2 pages, double spaced, 12-pt font). Proposals are **due to Canvas on Friday April 22nd at 10pm** (end of Week 4). Each team member should submit the same proposal document.

During Week 5 you will present your proposals in your sections, and provide peer review/peer feedback for the other projects (this will be integrated into your section participation grade). Use the input from your peers and section instructor to revise and adapt your project plan.

Literature Review (Week 7)

The literature review is a short synthesis of your team's research, building off of your individual annotated bibliographies. Unlike the annotated bibliography, **the literature review is a research narrative**, comparing and contrasting the outcomes and merits of the research sources informing your project.

For	exam	р	le:
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"In a world that follows SSP1-1.9, w	e can expect substa	intial changes in ho	w energy is
produced, how people use resource	s and travel, and ho	w our society functi	ions. Despite these
changes, our climate will a	ccording to [Source	1]. [Source 2] desc	ribes that we could
follow this path if [Source	3] posits an alternat	ive scenario:	[Source 4]
points out that as a result of these c	_	•	_
have positive and negative consequ			
while [Source 6] describes a negative	re outcome,	According to [S	Source 7], many
communities, particularly those curre	ently impoverished,	will likely react	leading to
These issues will influence			dicts All of
these studies have been incorporate	ed into the design of	our future world."	

The literature review should encompass your project's minimum eight (8) significant sources, including at least three (3) primary sources. Elements of the literature review should be incorporated into the project design document.

The length of your literature review should be 300-600 words (1-2 pages, double spaced, 12-pt font) and should be submitted to the group assignment on Canvas by **Friday May 13th at 10pm** (end of Week 7).

Project Digital Products and Presentation (Weeks 8-10)

Your project multimedia digital products are **due** in **draft form** on **Friday May 20th at 10pm** (end of Week 8) and in final form on **Tuesday June 7th at 10pm** (Finals Week), and will be submitted to your section's Final Project Google Drive folder. These materials must be original in design and creation.

Possible digital files and permitted formats include:

- video in MP4 or MOV formats, or posted on an <u>open</u> web service (Youtube or Vimeo, NOT TikTok or Instagram)
- audio files in MP3 or posted to an open web service (e.g., SoundCloud)
- images in JPG, GIF, or PNG
- digital documents in PDF, DOC, or DOCX
- webpages must be openly accessible
- NO executable files are permitted (for digital security reasons)

Note that elements from prior assignments, including the Speculative Essay and weekly discussion reflections, can be - and are encouraged to be! - incorporated into your project digital products. Make sure that all materials can be viewed without specialty software and can be viewed/accessed without password access.

During Week 9, your team will present your project in your section and provide/receive peer review, as well as revision notes from your TA on your draft design document. Integrate these into your final version for your project.

Design Document (Draft Week 8, Final due Finals Week)

Concurrent with your project digital products, your team will submit a collaborative design document that describes the design choices and their motivation for your project. This document should address the following elements:

- **Overview:** Summarize the design choices made in your project, including your vision of the future world and the format of your multimedia products
- Justification: Describe how your design choices were motivated or justified by your team's research, with particular attention to how your assigned SSP led to choices on the physical, social, and cultural environment of your world and its historical development
- **Bibliography** (MLA format) of at least eight (8) significant sources for your research, of which at least three (3) must be primary sources

Note that elements from prior assignments, including your proposal, annotated bibliography, discussion reflections, can be - and are encouraged to be! - incorporated into your project design document.

The design document length is 1000-1500 words (4-6 pages, double spaced, 12-pt font), and is due in draft form on Friday May 20th at 10pm (end of Week 8) and in final form on Tuesday June 7th at 10pm (Finals Week), along with your project digital products. Each team member should submit the same proposal document.

Personal Reflection (Week 8 & Finals Week)

Each group member will submit their own write-up reflecting on their contributions to the project and what they learned as a result of the project process. The reflections differ slightly between the Draft and Final versions of the project:

Reflection on the draft version of the project:

- What was your contribution to the project?
- How and how well did your team collaborate?
- What did you want to accomplish in the draft?
- What do you believe you did well?
- What do you believe needs more work?
- Any questions you have for your readers

Reflection on the final version of the project:

- What did you change from your draft version?
- How or why did those changes improve your argument?
- What concerns do you still have about this final version?

The personal reflection length is 250-500 words (1-2 pages, double spaced, 12-pt font). The reflection on the draft version of the project is due **on Friday May 20th at 10pm (end of Week**

8). The reflection on the final version of the project is due on Tuesday June 7th at 10pm (Finals Week).

Project Timeline

Week	Project Element	Deadline
3	Annotated Bibliography (related individual assignment) Team formation and SSP assignment	Friday April 15 10pm
4	Project Proposal (group)	Friday April 22 10pm
5	Project pitch & peer-review (group/individual)	(in sections)
6	Speculative Essay (related individual assignment)	Friday May 6 10pm
7	Literature Review (group)	Friday May 13 10pm
8	Draft project digital products & design document (group) Draft reflection statement (individual)	Friday May 20 10pm
9	Section presentations & peer-review (group/individual)	(in sections)
10	Project showcase	(in lecture)
Finals	Final project digital products & design document (group) Final Reflection (individual)	Tuesday June 7 10 pm

Course Policies

Course Expectations

In order to have an effective and engaging course, the following expectations are established both for instructors and students. If you believe there should be additional expectations for either group, please let me or the TAs know promptly.

Expectation of instructors

- Instructors will be prepared for lecture and discussion sections, and invested in the course material.
- Instructors will be enthusiastic and animated during lecture and discussion sections.
- Instructors will assure that course materials and assignments are posted on the course website in a timely manner, and corrections to materials made promptly and in a transparent manner.
- Instructors will assure that assignments are graded in a timely manner, with no more than one (1) week delay in grades being posted.
- Instructors will respond to emails within 48 hours.

- Instructors will be as invested in your work as you are, and treat your work with honesty and compassion.
- Instructors will treat students and other instructors with dignity and respecte, and will not engage in racist, sexist, classist, ablist, homophobic, transphobic, ethnocentric, fat-shaming, faith-shaming, or any other hateful communication.
- Instructors will learn and call students by their names, and ask for corrections to pronunciation.
- Instructors will use correct pronouns and share their own pronouns.
- Instructors will be understanding of the continuing limitations and emergencies that can
 arise in the current pandemic/remote learning environment, and will work to
 accommodate related issues in a way that is transparent, fair, and equitable to all
 students in the course.
- Instructors will be a safe sounding board for ideas, whether related to your assignments or not.
- Instructors will take earnest and constructive feedback about the course seriously.

Expectation of students

- Students will read the syllabus and refer to it throughout the quarter.
- Students will attend lectures, arriving on time, and engage in lecture discussions fully, actively, and with a positive attitude.
- Students will (and are required to) attend discussion sections, arriving on time, and engaging in these fully, actively, and with a positive attitude.
- In cases of Zoom meetings (e.g., office hours), students will participate with their video ON to the best of their ability, as the norm for engaged interaction.
- Students will treat class peers and instructors with dignity and respect, and will not engage in racist, sexist, classist, ablist, homophobic, transphobic, ethnocentric, fat-shaming, faith-shaming, or any other hateful communication.
- Students will take responsibility for their actions and feelings, especially as they manifest within the course and your interactions with peers and instructors.
- Students will own their part of class culture, recognizing the role they play in shaping the course experience
- Students will do the work assigned, both readings and writings, to the best of their ability.
- Students will do and submit their own work following protocols for Academic Integrity (see Academic Integrity policy below).
- Students will offer fellow writers honest, engaged, and constructive critique.
- Students will inform the instructors promptly and respectfully if there are any challenges
 or concerns with the assignments or teaching methods, or they notice errors or mistakes
 in the course materials, so we can correct mistakes or address any miscommunication.

Class Meeting Attendance and Participation

You create the majority of a class's success. Without the students, there is no class - only readings. Enrolling in a course means that you agree to be a part of a specific community for a

specific term. I see attendance--including mine and the TAs--as a gesture of respect to our educational community. The instructors appreciate your respect for the following policies that we see as integral to a successful online course:

Lecture

- Lecture attendance is STRONGLY RECOMMENDED but not required. Since lecture is
 where we will be exploring the content of climate change science, culture, art, and
 technology, and having useful discussions on key aspects, high attendance is necessary
 for success. If lecture attendance is persistently low, we may modify the lecture
 attendance policy to make it mandatory.
- All lectures will be recorded and available on UCSD podcast.

Discussion Section

- Attendance <u>and engaged participation</u> in Discussion Section IS REQUIRED for this course, and constitutes 10% of your overall grade. Your work during sections is important for your development in crafting an analytical argument, addressing alternative points of view, and revising not simply editing your writing. Your section is your writing community, of which you are an indispensable part.
- Late arrivals and early departures are more significant to the functioning of sections.
 Students arriving later than 10 minutes to section (without TA approval) or leaving before the final 10 minutes of section (without TA approval) will be counted as absent.
- In the event of a planned or unexpected absence, please let your TA know as soon as possible, preferably before the absence. Knowing about absences facilitates our ability to support you, particularly when assignments are due.
- While absences will not result in automatic failure, any absence will result in the loss of participation points.

Written Assignment Specifications

Your written assignments should adhere to the following conventions:

- Document formatting
 - Double-spaced
 - o 12-pt font
 - Left justification
 - 1" margins on all sides
- Document heading
 - Left side:
 - Name of assignment
 - Date of submission
 - o Right side
 - Last name(s)
 - Section number and TA last name

- First page should include at top (centered, 14- or 16-pt text):
 - o Title
 - Name(s) of the author(s)
 - Section number and TA last name
- Word Count should be included at the end of the document
- Citations and Bibliography (if required)
 - Use MLA format for citations in document and bibliography
 - Include a separate page(s) titled Bibliography listing the full MLA citations

Late Assignment Policy

For weekly discussion reflections, annotated bibliography, speculative essay, and all collaborative project components, the following late submission policy will apply to all components, unless an allowable extension has been provided by your Section TA:

Up to 1 day late: 25% reduction
Up to 2 days late: 50% reduction
More than 2 days late: no credit

Note that if no draft version of the primary written assignment or course reflection is received by 2 days after the deadline, your final assignment grade will be reduced by $\frac{1}{3}$ of a letter grade (i.e., $B \to B-$).

Requests for extensions must be received and approved BEFORE the deadline, unless you have a documented medical emergency.

Disability Accommodation

The instructors and staff are understanding and supportive of accommodations for students with mental, psychological, and/or physical disabilities, and will make every effort to provide accommodations within our capacity and as appropriate. The UCSD Office for Students with Disabilities (OSD) is available to work with students to facilitate accommodations due to disabilities. These include adaptive software and technologies, captioning, interpreters, peer notetakers, and exam time/location modifications. Students requesting accommodations must obtain and submit an Authorization for Accommodation (AFA) letter to the CAT3 Course Manager or Prof. Burgasser no later than one (1) week prior to receiving accommodations. For more information, see the OSD website (http://disabilities.ucsd.edu).

Medical Accommodations

As per University policy, all medical excuses must be accompanied by a signed physician's note. Make-ups will be considered on a case-by-case basis, but due to staffing and technology limitations these are not guaranteed, and alternate accommodations (e.g., grade redistribution) may be necessary. If a serious illness or accident causes you to miss a significant portion of the

course, you are strongly encouraged to consult with the Professor Burgasser, the CAT3 Course Manager, or your College Dean to discuss options. Note that Incompletes will be granted only in exceptional cases, and only if a significant fraction of course assignments have already been completed (see the campus policy on incompletes at

https://senate.ucsd.edu/Operating-Procedures/Senate-Manual/Regulations/500).

Equity and Inclusion

UC San Diego considers the diversity of its students, faculty, and staff to be a strength, and critical to its educational mission. It expects every member of the University community to contribute to an inclusive and respectful culture for all in its classrooms, work environments, and campus events. Dimensions of diversity can include sex; race and ethnicity; sexual orientation; gender identity and expression; mental, psychological and physical ability; age; national origin; income and socio-economic class; faith and non-faith perspectives; political ideology; past education; primary language; family status; military experience; learning and communication style; and others, as well as intersections of these dimensions. These identities, backgrounds, and characteristics are and must be valued in our community. **Discrimination or harassment based on any identity traits will not be tolerated in this course**. Furthermore, Title IX explicitly prohibits sex discrimination, including sexual misconduct, sexual violence, sexual harassment, and retaliation.

If you experience discrimination or harassment, or witness someone experiencing discrimination or harassment, you are encouraged to report this to the Office for the Prevention of Harassment & Discrimination (OPHD) at http://ophd.ucsd.edu/report-bias/index.html.

All instructors in this course are designated mandatory reporters, and as such are legally required to report cases of sexual violence. Confidential resources, advocacy, and information concerning reporting options for sexual misconduct, sexual violence, sexual harassment, and retaliation can be found at the Sexual Assault Resource Center (https://students.ucsd.edu/sponsor/sarc).

Online harassment and cyberbullying will not be tolerated, and any instances of online harassment will be dealt with promptly and the perpetrator(s) immediately reporting to the Academic Integrity Office.

If there are aspects of the design, instruction, and/or experiences within this course that create barriers to your inclusion, or accurate assessment of your understanding or achievement, please notify the instructor as soon as possible so that we may remedy these issues.

Mental Health

During the current pandemic, you may be experiencing a range of issues that can negatively impact your mental health and your learning. These may include physical illness, housing or food insecurity, strained relationships, loss of motivation, depression, anxiety, high levels of

stress, alcohol and drug problems, feeling down, interpersonal or sexual violence, or grief. Such feelings can be enhanced when discussing global problems such as climate change.

These concerns or stressful events may lead to diminished academic performance and affect your ability to participate in day-to-day activities. If there are issues related to coursework that are a source of particular stress or challenge, please speak with me, Prof. Burgasser, so that I am able to support you. UC San Diego provides a number of resources to all enrolled students, including:

- Counseling and Psychological Services (858-534-3755 | http://caps.ucsd.edu)
- Student Health Services (858-534-3300 | http://studenthealth.ucsd.edu)
- CARE at the Sexual Assault Resource Center (858-534-5793 | http://care.ucsd.edu)
- The Hub Basic Needs Center (858-246-2632 | http://basicneeds.ucsd.edu)

We care about you at UC San Diego, and there is always help available.

Academic Integrity

Defining Academic Integrity and Misconduct

The remote learning environment over the past 2 years has elevated concerns about academic integrity among instructors and students. In the Spring 2020 quarter alone, over 1000 students were reported for academic integrity violations, many of whom received failing grades and even expulsion from campus.

UCSD has a detailed policy on what constitutes academic integrity and misconduct. Academic misconduct includes, but is not limited to:

- Blatant cheating (e.g., communicating with someone besides the instructors during an exam; reproducing solutions from other students/course materials/external resources; copying or posting questions from online sites such as Google, Chegg, CourseHero, etc.);
- Assisting in others' cheating (e.g., sharing exams or worksheet solutions, doing someone else's assignment for them, etc.);
- Purposely disrupting others' learning (e.g., disrupting lecture or workshop sections, harassing or bullying other students, etc.);
- Misrepresenting yourself or others in order to gain an unfair advantage (e.g., having someone else do your assignment, turning in others' work as your own, falsely claiming illness or internet connection issues); and
- Failing to report instances of cheating that you are aware of (e.g., "everyone does this" will be treated as academic misconduct).

The Policy on Integrity of Scholarship (http://academicintegrity.ucsd.edu) lists some of the standards by which you are expected to complete your academic work, but your good ethical judgment (and if doubt, asking the instructor for advice) is also expected.

Guidelines

Here are some tips the Academic Integrity Office provides for *Excelling with Integrity* in these challenging times and even when no one is watching (see https://academicintegrity.ucsd.edu/take-action/covid-19-students.html):

- Read and follow instructions: Pay close attention to assignment/exam instructions and follow them exactly. If an action isn't explicitly allowed, assume that by engaging in that action, you would be violating academic integrity.
- Take the pledge: Complete and sign the course Academic Integrity Pledge; research
 has shown that reminding ourselves of our own values/integrity can help reduce
 temptations.
- Run your action through these 3 tests: Before engaging in any action on an assignment or exam, ask yourself:
 - o Is what I'm about to do honest, fair, respectful, responsible and trustworthy?
 - Is what I'm about to do allowed by this specific exam instructions or UC San Diego's academic integrity policy?
 - If the professor or my TA were standing right here watching me, would I still do this?

If the answer is NO to any of these questions, don't do it!

• **Don't rationalize cheating**: Be aware of human tendencies to "rationalize" behaviors by saying things like "well, everyone else is probably doing it" or "it's okay given the current situation" or "it's not that big of a deal". Those are things we tell ourselves to convince us that it is "okay" to cheat "just this one time".

Remember that, in the long-run, one grade on one assignment or exam is not worth violating your own integrity and risking your academic future. If you are struggling, don't cheat - ask for help!

Actions taken in cases of Academic Misconduct

Any students caught or suspected of academic misconduct will be required to:

- (1) Meet individually with the instructor to explain their actions.
- (2) If you refuse to or cannot meet with the instructor, or the misconduct is especially egregious, your case may be referred directly to the Academic Integrity Office for investigation.
- (3) Depending on the severity of the violation, or evidence of past violations, administrative sanctions may be imposed by the instructor (e.g., loss of points for assignment, loss of credit for all assignments in a given category, or a failing grade) and your college Dean of Student Affairs (including withheld grades or dismissal). Note that failing grades due to academic integrity violations can NOT be removed, and the violation will be noted on your transcript.

Students who assist in, or are complicit with academic misconduct - including failure to report instances of academic misconduct - are also in violation of the Policy and may be subject to the same procedures. You should report cases of cheating directly to the instructor (this can be done anonymously through Piazza) or to the Office of Academic Integrity: https://academicintegrity.ucsd.edu/take-action/report-cheating.

Detailed Course Schedule

This schedule is subject to change. In particular, I may rearrange the reading lists a week in advance to balance source material and expected effort. Please pay attention to weekly announcements by your instructor and TA. Any reading listed should be read before the start of the week, and will be the subject of your pre-lecture check-ins.

Week 1: Foundations: What is Climate Change?

In this introductory week, we lay the foundations of the course by evaluating what we mean by "climate change". What is the climate? How is it changing? What do we know about why it is changing? You'll learn a method to efficiently read both scientific literature and policy briefs through categorical reading and structured note-taking.

Assigned readings

- Read: the course syllabus: https://bit.ly/3Jzowma
- Read: A Few Rules for Predicting the Future (Butler)
- Explore: What is Climate Change?
 https://www.un.org/en/climatechange/what-is-climate-change (webpage, United Nations Climate Action)
- Watch: "The Basics of Climate Change", The Royal Society: https://www.youtube.com/watch?v=n4e5UPu1co0 (1 min)

Additional readings

 IPCC AR6 Climate Change 2022 Physical Science Basis Report Video (5 Nov 2021) https://www.youtube.com/watch?v=e7xW1MfXjLA

Weekly assignments

- Weekly pre-lecture checkin (Thursday 9:30am)
- Weekly discussion prompt (Thursday 10pm)
- Academic Integrity Pledge (Friday 10pm)

Week 2: The Science of Climate Change

This week we delve into the science behind climate change. Topics include energy, heat, and radiation; the greenhouse effect; biological influence on climate; and other topics. We'll see why

the Earth's climate changes, and what we can expect for our future climate based on our best models. In sections you'll be discussing different types of sources (primary, secondary, synthesis) and learning about annotated bibliographies in preparation of our first major assignment due next week.

Assigned readings

- Read: IPCC AR6 Climate Change 2021: The Physical Science Basis (Summary for Policymakers):
 - https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC AR6 WGI SPM final.pdf
- Read: Theses on the Philosophy of History (Benjamin)
- Read: Ellen Bass, "The Big Picture" in All We Can Save (Johnson & Wilkinson 2020)
- Watch: "The Last Time the Globe Warmed" (PBS EONS, 4 December 2017) https://www.youtube.com/watch?v=ldLBoErAhz4 (11 min)

Weekly assignments

- Weekly pre-lecture checkin (Tuesday 9:30am)
- Weekly discussion prompt (Thursday 10pm)

Week 3: Welcome to the Anthropocene

The impacts of human-induced climate change, ranging from rising and acidifying seas to mass extinctions, have motivated some scientists to call the current geological epoch the Anthropocene. What are the roots of this change? We'll evaluate in detail how (and how we know) human activities have led to the current climate crises, touching on topics such technological development, population growth, energy growth, capitalism, and globalization; and evaluate what the impacts of these activities have been on social structures, public health, and economies. We'll also look at the psychological impacts of climate change, including the rise of climate change distress or ecoanxiety and its expression in the arts and media.

Assigned readings:

- Read: "Mothering in the Age of Extinction" <u>All We Can Save</u>:, Amy Westervelt, pp 248-253
- Read: "The Uninhabitable Earth", David Wallace-Wells, New York Magazine, 10 July 2017:
 - https://nymag.com/intelligencer/2017/07/climate-change-earth-too-hot-for-humans.html
- Primary source: "Defining the Anthropocene", Lewis & Maslin, 2015, Nature 519, 171
 https://www.nature.com/articles/nature14258
- Coping with Climate Change Distress, Australian Psychological Society, https://www.psychology.org.au/getmedia/cf076d33-4470-415d-8acc-75f375adf2f3/coping-with_climate_change.pdf
- Watch: "What Will Our Planet Look Like in 100 Years?", The Atlantic, 27 August 2015, 3 min: https://www.voutube.com/watch?v=KFB-wTF9pSc (3 min)

 Watch: "Last Days at Paradise High", Emily Thoms & Derek Knowles, New Yorker documentary, 26 August 2020 (23 min) https://www.newyorker.com/culture/the-new-yorker-documentary/the-ongoing-trauma-of-californias-wildfires-in-last-days-at-paradise-high

Weekly assignments

- Weekly pre-lecture checkin (Tuesday 9:30am)
- Weekly discussion prompt (Thursday 10pm)
- Annotated Bibliography (Friday 10pm)

Week 4: Climate Justice

For many people, climate change is a "theoretical" concept as it has so far had minimal effect on affluent people (including most Americans). However, the current impacts of the climate crisis have had a measurable and disproportionate impact on underdeveloped countries and marginalized communities around the globe. We'll interrogate the differential impact of climate change, collectively characterized as climate justice, with focus on frontline/fenceline communities in the US, at-risk populations across the world, and the legacy of colonialism now manifested as climate racism.

Assigned readings

- Read: All We Can Save: "At the Intersections", Jacqui Patterson, pp 193-201
- Watch: "The Link Between Climate Change, Health, & Poverty" (Cheryl Holder, TEDMED Talk, March 2020, 12 min):
 https://www.ted.com/talks/cheryl holder the link between climate change health and poverty
- Read: This Is Inequity at the Boiling Point (New York Times, Somini Sengupta 2020)
 https://www.nytimes.com/interactive/2020/08/06/climate/climate-change-inequality-heat.html?referringSource=articleShare
- Explore: Mapping Inequality Redlining in New Deal America (Local Initiatives Support Corporation of San Diego, 9 September 2020): https://www.flipsnack.com/liscsandiego/mapping-inequality-san-diego-1.html
- Explore: Principles of Climate Justice, Mary Robinson Foundation https://www.mrfcj.org/principles-of-climate-justice/ [PDF version: https://www.mrfcj.org/pdf/Principles-of-Climate-Justice.pdf]
- For Discussion Section: They Say I Say Chp 29 (second half on "Topic Proposals")

Weekly assignments

- Weekly pre-lecture checkin (Tuesday 9:30am)
- Weekly discussion prompt (Thursday 10pm)
- Collaborative Project Proposal (Friday 10pm)

Week 5: The Wizard & The Prophet

As we seek to find solutions to the climate crisis, a fundamental question arises: Do we need to radically change our society to address the solution? Or will we find a technological way out? The tension in the decision to step forward or step back has happened in several times in history, most notably in addressing what looked to be certain wide-spread famine in the 1950s and 1960s. We'll examine this event through the lens of the current climate crisis, and ask whether we need to stop or accelerate - or both?

Assigned readings

- ** = part of weekly pre-lecture quiz
 - ** Read: Can Planet Earth Feed 10 Billion People? Humanity has 30 years to find out (The Atlantic, Charles Mann, 2018)
 https://www.theatlantic.com/magazine/archive/2018/03/charles-mann-can-planet-earth-feed-10-billion-people/550928/
 - Read: "MIT Predicted in 1972 That Society Will Collapse This Century. New Research Shows We're on Schedule." Nafeez Ahmed, Vice.com, 14 July 2021: https://www.vice.com/en/article/z3xw3x/new-research-vindicates-1972-mit-prediction-that-society-will-collapse-soon
 - Read: "'OK Doomer' and the Climate Advocates Who Say It's Not Too Late" Cara Buckley, New York Times, 22 March 2022: https://www.nytimes.com/2022/03/22/climate/climate-change-ok-doomer.html
 - ** Read: "Is it wrong to be hopeful about climate change?" (Diego Arguedas Ortiz, BBC Futures, 9 January 2020):
 https://www.bbc.com/future/article/20200109-is-it-wrong-to-be-hopeful-about-climate-change
 - Read: "Scylla and Charybdis: Beyond climate denial and despair" (Lawrence Weschler, The Atlantic, 15 October 2020): https://www.theatlantic.com/science/archive/2020/10/lawrence-weschler-beyond-climate-denial-and-despair/616698/

Weekly assignments

- Weekly pre-lecture checkin (Tuesday 9:30am)
- Weekly discussion prompt (Thursday 10pm)

Week 6: I Just Don't Believe It: Climate Change Denial

Despite overwhelming evidence and scientific consensus, climate change remains a controversial political issue. In this week, we'll examine the underpinnings of climate denialism, including the heuristics and cognitive biases that keep people skeptical, and the strategies of past campaigns, encapsulated in the tobacco industry playbook, that have halted progress on climate change and other social issues for over 70 years.

Assigned readings:

- ** = part of weekly pre-lecture quiz
 - ** Listen: "The Birth of Climate Change Denial" (Only Human Podcast, 17 May 2017; 40 min):
 - https://www.wnycstudios.org/podcasts/onlyhuman/episodes/birth-climate-change-denial
 - ** Read: Climate Change in the American Mind: December 2020 (Leiserowitz et al. 2021, New Haven, CT: Yale Program on Climate Change Communication)
 https://climatecommunication.yale.edu/publications/climate-change-in-the-american-mind-december-2020/ (23 pp main text, 1 pp executive summary)
 - ** Explore: Global Warming & Climate Change Myths, Skeptical Science, https://skepticalscience.com/argument.php
 - Read: "Will the "Tobacco Strategy" Work Against Big Oil?" (Lincoln Caplan, The New Yorker, 17 November 2015):
 https://www.newyorker.com/news/news-desk/will-the-tobacco-strategy-work-against-big-oil (5 pp)
 - Read: "5 Cognitive Biases in Climate Risk Management" (Roop Singh and Rebeka Ryvola, Braced, June 2018)
 http://www.braced.org/contentAsset/raw-data/533c48ab-749c-49e9-971b-3d0a83293256 /attachmentFile

Weekly assignments

- Weekly pre-lecture checkin (Tuesday 9:30am)
- Weekly discussion prompt (Thursday 10pm)
- Speculative Essay (Friday 10pm)

Week 7: Climate Activism

Time to get active! Ecology movements of the 1960s, inspired by Rachel Carson's Silent Spring, made major strides to address environmental issues over the past 50 years, from pollution to pesticide. How do we harness the work of the past and the energy of the current generation to move toward activism? We'll discuss what we can do individually and collectively, the power of current youth-led movements, and strategies for talking climate change with skeptics.

Assigned readings:

- ** = part of weekly pre-lecture quiz
 - Explore: Effective Activist webpage: https://effectiveactivist.com/
 - ** Read: "Why young climate activists have captured the world's attention" (Nature, Emma Marris, 18 September 2019)
 https://www.nature.com/articles/d41586-019-02696-0
 - Explore: "Facing the Heat: stories of climate change conversations" (Psychology for a Safe Climate, 2015):

- https://e661686c-d693-4798-9322-da4065aa9567.filesusr.com/ugd/59da79_cdef546bc44247b491ce16f38649f86a.pdf
- ** Watch: "This is the Deal: Building a Green New Deal at UCSD" (Green New Deal at UCSD, 16 October 2020, 20 min): https://www.youtube.com/watch?v=s8f5Kjdnz1o
- ** UCSD Climate Plan 2019: https://sustain.ucsd.edu/ files/focus/UCSD-Climate-Action-Plan-2019-final.pdf
- Report on the UCSD Senate Task Force on the Climate Crisis, 11 August 2020: https://senate.ucsd.edu/current-affairs/reports-recommendations/report-of-the-senate-tas-k-force-on-the-climate-crises/

Weekly assignments

- Weekly pre-lecture checkin (Tuesday 9:30am)
- Weekly discussion prompt (Thursday Friday 10pm)
- Literature Review (Friday 10pm)

Week 8: Politics and Policy

How is climate change being addressed from the political and policy side? We'll discuss current infrastructures of establishing climate change policy, from the UN IPCC process and the status of agreements, to political actions in the US both nationally (EPA, the Green New Deal) and locally (California's Integrated Climate Adaptation and Resiliency Program). We'll also see how past policy was successful in addressing the ozone hole and acid rain in the 1990s, and how these strategies have emerged as potential policies for tackling climate change.

Assigned readings

- ** = part of weekly pre-lecture quiz
 - ** All We Can Save: The Politics of Policy, Maggie Thomas (pp 84-90)
 - Read: "The World Solved the Ozone Problem. It Can Solve Climate Change" (New York Times, 7 Dec 2019):
 - https://www.nytimes.com/2019/12/07/opinion/sunday/ozone-climate-change.html
 - ** Interactive: Richard Conniff "The Acid Rain Economy: How the Free Market Tackled an Environmental Challenge" 2016, National Academy of Sciences From Research to Reward series: https://www.nap.edu/read/23671/
 - ** Read: "Rights for nature: How granting a river 'personhood' could help protect it"
 Justine Townsend, Alexis Bunten, Catherine Iorns, Lindsay Borrows; The Conversation,
 3 June 2021:
 - https://theconversation.com/rights-for-nature-how-granting-a-river-personhood-could-help-protect-it-157117
 - Read: "Carbon Tax vs. Cap-and-Trade: What's a Better Policy to Cut Emissions?" 2016,
 Noah Kaufman, World Resources Institute:
 - https://www.wri.org/insights/carbon-tax-vs-cap-and-trade-whats-better-policy-cut-emissions

Weekly assignments

- Weekly pre-lecture checkin (Tuesday 9:30am)
- Weekly discussion prompt (Thursday 10pm) no prompt this week due to draft project submission deadline
- Draft Project Digital Products (Friday 10pm)
- Draft Project Design Document (Friday 10pm)
- Draft Project Personal Reflection (Friday 10pm)

Week 9: Desperate Measures

The scale and immediacy of the climate crisis has inspired big technological ideas to try to mitigate change in climate. We'll examine the motivation, design, and feasibility of some of these "short-term" geoengineering solutions, and their potentially negative consequences. We'll compare these to traditional indigenous approaches to climate change mitigation, and also examine more potentially controversial long-term social and political solutions, including abandoning the Earth altogether for other potentially habitable worlds.

Assigned readings

- All We Can Save: A Handful of Dust, Kate Marvel (pp 29-34)
- "Can Carbon-Dioxide Removal Save the World?" (Elizabeth Kolbert, The New Yorker, 13 November 2017):
 - https://www.newyorker.com/magazine/2017/11/20/can-carbon-dioxide-removal-save-theworld
- "The Very Optimistic New Argument for Dimming the Sky" (Robison Meyer, The Atlantic, 12 March 2019),
 - $\underline{https://www.theatlantic.com/science/archive/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/584551/2019/03/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/58450/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/58450/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/58450/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/58450/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/58450/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/58450/solar-geo-engineering-may-bring-only-benefits-harvard-study-claims/58450/solar-geo-engineering-may-bring-only-br$
- "Project Exodus" Elizabeth Kolbert, The New Yorker, 25 May 2015: https://www.newyorker.com/magazine/2015/06/01/project-exodus-critic-at-large-kolbert
- "Stephen Hawking Warns We Must Colonize Another Planet Soon Here's Why He's Wrong" (Eric Mack, Forbes Magazine, 3 May 2017): https://www.forbes.com/sites/ericmack/2017/05/03/stephen-hawking-mars-colony-moon-space-elon-musk/?sh=276130036537

Weekly assignments

- Weekly pre-lecture checkin (Tuesday 9:30am)
- Weekly discussion prompt (Thursday 10pm)
- Project presentations and peer feedback (in Discussion Sections)

Week 10: What is Your Future?

This week we will showcase a few of the final course projects selected by the Discussion Leaders. What do you see in our future? How will it all play out? And what role will you play in our climate future?

Weekly assignments

- Weekly discussion prompt (Thursday 10pm)
- Engagement assignments (Friday 10pm)
- Final Project Digital Products (Friday 10pm)
- Final Project Design Document (Friday 10pm)
- Final Project Personal Reflection (Tuesday June 7th 10pm finals week)