CCS Yearly

UNIVERSITY OF MONTANA CLIMATE CHANGE STUDIES PROGRAM

Welcome to our program’s first newsletter – one that looks back at the accomplishments over the last year and ahead to new initiatives. I invite you to read about:

- Our students, who are doing meaningful work;
- Our faculty, who are winning awards; and,
- Our program, which engages students in innovative ways.

The 2017 year was great for the Climate Change Studies program. The Davidson Honors College provides a valuable home that supports our program’s emphasis on student engagement and success. The recent Academic Program and Administrative Services Prioritization process ranked CCS in the top category, prioritizing its development and growth.

As we look forward, we hope to strengthen our network of students, alumni, and supporters. Please check out the final page to see how you can get involved. Thank you for being a part – I couldn’t be more proud of the people involved in this program.

~Nicky Phear, Program Director, Climate Change Studies

2017 HIGHLIGHTS

- 75 UM students are currently enrolled in the CCS minor from 22 different majors
- 35 students completed an internship or a self-designed practicum project
- Launched the first Climate Art and Science Showcase where six students performed or shared original works in dance, song, audio drama, and visual art propaganda
- Students built more than 20 bikes, conducted energy audits, and developed climate curricula
- 18 students were guided on a three-day field trip through the Crown of the Continent to gain perspective in lake, mountain, tribal, and rural communities
- 12 students visited a large wheat-farm-turned-organic in the golden triangle of Montana, a farm featured in the first-year Griz Read
- Two students received national awards: one Udall Scholar Honorable mention, and one Marshall Scholar
- One faculty member received an award (see page nine)
- One new course launched: Public Policy and the Climate, taught by Professor Sara Rinfret
Climate Change in Montana
Chapter 2, Montana Climate Assessment

“Montanans must be prepared for projected increases in temperature in the future. Because of its interior location, Montana has warmed more over the last 65 years than the national average, and it will experience greater warming than most parts of the country in the future, particularly when compared to states in coastal regions. Key to the concern is that coming temperature changes will be larger in magnitude and occur more rapidly than any time since our 1889 declaration of statehood (and, to be sure, well before).”

Lione Clare: Photography

Lione graduated this fall with a Resource Conservation degree and several minors. She fell in love with photography at a young age and has completed several photography projects. The projects aimed to educate people about the effects of climate change and expose them to natural beauty. She presented her Vietnam photo story at the Juneau World Affairs Council, a Rotary International meeting, and on Alaska Public Radio. See more at: www.lioneclarephotography.com

Colin Brust: Montana Climate Assessment

Colin is a senior who will graduate this spring with degrees in Resource Conservation, Spanish, and Climate Change Studies. Colin had the opportunity to work with Dr. Nick Silverman on the 2017 Montana Climate Assessment Report. He provided support for the analysis of data, graphic design, and report writing for the second chapter, focused on climate trends in Montana. Colin’s contributions were significant enough that they made him a co-author, the only undergraduate student listed as a co-author on the report. According to his supervisor, “Colin was excellent and has given me faith that there are good undergrads out there that can add value to the Montana Climate Office.”
Honors students in the Intro to Climate Change class spent three days in and around Glacier National Park exploring climate change impacts and perspectives in Montana’s Crown of the Continent. The focus of the trip was on the physical manifestation of climate change on lake, mountain, and grassland ecosystems. Through meetings with researchers at the Flathead Lake Biological Station, a hike to the Grinnell Glacier, and visits with ranchers and tribal members along the Rocky Mountain Front, students gained new perspectives from Park, tribal, and rural communities.

Multiple Time Scales
Geologist Paul Rappaport spoke with students at Grinnell Glacier about how much Earth’s climate and landscape have changed throughout history, and put the current rate of change into perspective.

At the Flathead Lake Biological Station, students learned about the effects of rising temperatures on fish and invertebrate populations.

For many students, a highlight was visiting with Pauline Matt on the Blackfeet Reservation.

“My absolute favorite moment of the trip was meeting Pauline. I have always been deeply fascinated by Native American belief systems and cultures, and listening to Pauline’s story just gave me so much respect for the indigenous people of this beautiful country.”

Meeting Hal Herring was also a highlight, “His perspective on rural communities and the part of America that is so rooted against climate change was invaluable.”
Students in the Climate Change Studies minor find creative and meaningful ways to address climate change. A hallmark of the program is that every student completes an applied project relevant to their major or interests. Below are a few highlights from the past year.

**National Park Service**

**Carmen Thissen**

Carmen’s internship project with the Grant-Kohrs Ranch was also the pilot for what may become a widespread student program within National Park Service. She worked closely with Park staff and supervisors to create a “Superintendent’s Climate Change Checklist”, aimed at delivering an assessment of the impacts of climate change on Park resources. Over the course of her internship, Carmen focused on climate change impacts to soil health and its role in protecting other park resources as well as sequestering carbon. Carmen’s final assessment explained not only the impacts of climate change on soil health but also provided management strategies for the Grant-Kohrs Ranch.

**Climate Smart Missoula**

**Carly Andlauer**

As an intern with Climate Smart Missoula, Carly created interactive maps for users to find information related to climate change. The first map Carly worked on was for the Clean Air, Cool Places project which aimed to help community members adapt to hotter, drier summers and extended fire seasons. Another map aimed to provide locations of solar installations and green buildings in Missoula, as well as showcase how community members are mitigating climate change.

**STUDENT INTERNSHIP PROJECTS**

This Clean Air, Cool Places project map helps locals find the areas in town that have healthier air and cooler temperatures.
Working with Free Cycles and Missoula Institute for Sustainable Transportation director Bob Giordano, Kenley conducted a cost-benefit analysis of different paving techniques. His research paper evaluated standard pavement techniques and their costs and impacts on the environment. Using economic analysis, Kenley compared alternative techniques and made recommendations for what Missoula can do to improve the sustainability of pavement practices.

During her Watershed Education Network internship, Sara designed a short climate change curriculum for girls. Her presentation aimed to educate young women on the science of climate change, social and environmental impacts, feminism, and involvement opportunities. Sara’s curriculum included time for participation and discussion. The picture on the left is one of the slides from her classroom presentation.

For his internship with the Greenhouse Gas Management Institute, Sean wrote an evidence-based blog post on the rhetorical functions of social movements. Pulling from his knowledge as a Communications major, Sean wanted to enlighten politically active scientists on effective climate discourse. The blog he posted to has around 400 regular readers, most of whom are the target climate scientist audience.
Students from a variety of majors and departments collaborated to hold the first ever Climate Art and Science Showcase at UM. Both campus and community members gathered to view creative performances showcasing the climate science research of six different students.

### Katy Conrad, Wendell Elliot

Dance major Katy Conrad worked with environmental studies major Wendell Elliot to present an original choreography that illustrated the story of coral reef bleaching due to climate change.

### Grace Held

Creative writing major Grace Held displayed her visual art pieces that portrayed the contrasting future possibilities of a world experiencing climate change.

### Matt Malloy

Economics and math major Matt Malloy designed and presented a podcast featuring a conversation with his climate-skeptic father, and the lessons he learned about having productive and positive communication. Listen here: https://soundcloud.com/sandfriends/gearing-up-for-the-holidays-discussing-climate-and-family

### Jayden Peterson

Forestry major Jayden Peterson performed an original song titled “I Have Seen (Son of my Son).” The lyrics take the perspective of a grandfather sharing with his grandson the differences of the world he grew up in.

### Daylen Turk

Journalism studies major Daylen Turk presented a fictional audio drama that documented a journalist’s and climate scientist’s quest to discover the location and source of climate change. Listen here: https://soundcloud.com/user-489186548/finding-climate-change-a-1
Since the Climate Change Studies Program launched in 2009, there have been more than 100 graduates, many of whom have gone on to work in related fields. The widespread success of Climate Change Studies alumni is a testament to the significance and employability of the degree.

Bowen Humphreys graduated from the University of Montana in 2013 with an Environmental Studies degree, a Philosophy minor, and the Climate Change Studies minor. He is now attending the MBA program at the University of Utah, specializing in business ethics and corporate social responsibility. Previous to starting the MBA program this fall, Bowen co-founded a consulting business, Zenith Sustainable Consulting, which specializes in strategic sustainability consulting for the outdoor industry, ski resorts, and mountain communities.

Becca Boslough graduated in 2014 with degrees in Resource Conservation, Climate Change Studies, and Wilderness Studies. After spending a year working for the U.S. Forest Service in D.C. through her Truman Scholarship, Becca went to Germany as a Congress-Bundestag Youth Exchange Scholar. She is now in the UK studying forest policy and climate change as part of a Marshall Scholarship. There, she is a part of an international network of researchers at the Priestley International Climate Centre.

“The collaborative, interdisciplinary approach of the CCS program was truly a standout to me in my undergraduate career.”

Katrina Keleher, 2014 Alum
Charles Gale

Charles graduated in 2010 with a Resource Conservation and CCS degree. He recently founded Doug Fir Consulting, which provides research and advice on sustainable forest management. His company is working on several projects for the University of Montana BBER, a cross laminated timber manufacturer, and several Wood Product Industry manufacturers.

Emily Jensen

Emily graduated in 2015 with a Social Work degree and CCS minor. As a Free Cycles intern, Emily became increasingly involved with the many services the bike shop provides. She is now the Program Director for the Missoula Institute for Sustainable Transportation and Free Cycles community bike shop.

Kara Colovich

Kara graduated the University of Montana in 2015 with an Environmental Studies degree and CCS minor. She now works for the National Outdoor Leadership School (NOLS), a nonprofit global wilderness school as the Sustainability Coordinator.

Mara Menahan

Graduated in 2015 with an Environmental Studies degree and Climate Change Studies minor

“The CCS program inspired me to think about the role of art in science communication. As a student, I had the opportunity to build an illustration portfolio through internships and study abroad programs. After graduation, I took a job as the botanical illustrator at the U.S. Botanic Garden in Washington, D.C. where I create visuals for signs and publications, working with botanists, educators and horticulture staff to connect people with the incredible world of plants.”
What students say…

Communication, Consumption, and Climate (COMX 349)

“Steve knows how to make students want to learn and helps expand the way they think about the world.”

“Steve was very engaging and pushed us to defend our positions on climate change.”

“I thought the class challenged my preconceived notions on consumption and going green.”

“The Communication class with Professor Schwarze was eye opening and stimulating. His readings and teaching style made me think about the ways we communicate about climate change and environmental issues through a new lens.”

“It forced me to reevaluate not only my own consumerist lifestyle, but also my entire life, since our culture is so centered around consumerism.”

“It was really eye-opening to see climate change as a problem of our culture and see something other than the science.”

“This course has forever changed the way in which I allow myself to perceive and relate to my place in the world.”

Steve Schwarze

We want to congratulate Professor Steve Schwarze, who received the 2018 Pantzer Presidential Humanities Award for his role in making the University of Montana a more open and humane learning environment. Steve was instrumental in creating the CCS curriculum. His Communication, Consumption, and Climate class is among students’ most valued courses. Students find him compelling, eye opening, and humorous.

Steve has taught at the University of Montana for seventeen years and has co-authored multiple publications. His 2016 book, “Under Pressure: Coal Industry Rhetoric and Neoliberalism” earned a national award for environmental communications. He is also a three-time recipient of the Christine L. Oravec Research Award, a Greening UM recipient, and has received a Cox Education Excellence Award.

Climate Change Studies students and staff couldn’t be more proud of Steve or more grateful for his dedication to the program.
Connect

Our new UM Climate Change Studies Student and Alumni Facebook page is intended to create a platform for sharing ideas and events related to climate change. The hope is that this group will help to build a network involved in the CCS program. Please email Sarah.luth@umontana.edu to get connected. Sarah is a current CCS student, serving as this year’s CCS Program Assistant.

Attend

March 14: Documentary film, Chasing Coral, followed by a discussion about climate change politics and policies. DHC 119, 6:00-8:00 pm.

March 19: Panel featuring women in climate change, 6:30-8:00 pm. Location TBA.

April 12: Public lecture by Andrew White about his experiences working on the Paris Agreement under Secretary of State Kerry, GBB 123, 7:00-8:30 pm.

Contribute

Our new E3Fund provides a pool of money for students in need to support their work. We want to help students learn experientially, explore new ways of addressing climate change, and elevate themselves and their potential in the process.

We aim to raise $500 per internship; $1,000 per practicum project; and $2,000 per climate expedition.

If you would like to donate, please visit: www.cfc.umt.edu/ccs/support.

How can you help the Climate Change Studies program sustain, grow, and improve its commitment to students?

THREE WAYS YOU CAN HELP

- Connect via our social media sites: www.facebook.com/UMClimateChangeStudies
  UM climate change studies students and alumni

- Attend one of our upcoming events: see upcoming events on side panel.

- Contribute to our new E3Fund: to support student internships, practicum projects, and field-based learning.

E3=Experience, Explore, Elevate