Proposal for Student Climate Change Literacy
Opportunities & Objectives Planning Document

Goal

Ensure all students of all areas of study graduate from Cornell with an understanding of the impacts of climate change and necessary roads to a sustainable future through demonstrated understanding and hands-on experiences in the principles of climate systems, science, and solutions. This effort is currently supported by the Senior Leaders Climate Action Group & Presidents’ Sustainable Campus Committee.

Learning Objectives

Definition - Climate Change Literacy is an understanding of one’s influence on climate and climate’s influence on the individual and society. This definition and the following outcomes are derived from the NOAA Climate Literacy: Essential Principles of Climate Science 2009.

A climate literate person at Cornell University:
1. Understands the essential principles governing the Earth’s climate system,
2. Understands the ecological, economic, social, and moral, and political issues leading to and impacted by climate change
3. Understands opportunities for sector-specific creation and use of solutions to these issues
4. Knows how to assess scientifically credible information about climate,
5. Communicates about climate and climate change in a meaningful way, and
6. Is able to make informed and responsible decisions with regard to actions that may affect climate.
7. Participates in living laboratory and engaged learning opportunities as Cornell models the campus transformation to carbon neutrality by 2035 and coordinated regional, New York State, and global efforts to reduce and adapt to climate change
8. Understands the opportunities to address climate change as a student, citizen, scientist, employee, educator, and innovator as a part of their current and future endeavors

Rationale

Climate change is one of the most significant challenges ever faced by the global community and planetary systems that support human life. The Cornell community must truly appreciate the gravity of the challenge we face with our rapidly warming climate. Cornell researchers (Allred, et. al.) have shown that once people accept that climate change is human-caused they are more likely to act to address it.

As a research and land-grant University, Cornell has an inherent responsibility to ensure understanding and action around climate change facts for all members of the Cornell community, particularly to our students who will feel the brunt of the changes and global impacts in coming years.
Options for Integration

Core Curriculum
Varied approaches to climate change and sustainability integration have been successful at campuses across the U.S. Faculty curriculum development grants and workshops have been particularly successful and with funding and support, would ensure any of objectives 2-5 would be met.

1. Core curriculum requirement
2. Integration of climate change literacy learning objective into department graduation requirements
3. Integration of climate change literacy learning experiences into existing courses
4. Integration of climate change literacy learning experiences into new course modules
5. Creation of new courses for climate literacy

Marketing & Coordination
1. Advance the existing climate change minor
   The climate change minor encompasses many of the climate change courses currently available but the number of students enrolled in the minor is small >25.
2. Marketing and resource development to promote existing curricular and co-curricular climate change literacy opportunities
3. Create and make readily accessible courses with content or core focus on climate change literacy
4. Host faculty curriculum development workshops for climate change course integration

Co-Curricular
Additionally, ongoing efforts to integrate climate literacy into the campus experience through residential, co-curricular, engagement, and service opportunities should be developed and supported:

1. Climate change literacy integration into all new student orientation programs and writing seminars
2. Promotion and support of the Atkinson Center climate change seminar series
3. Promotion of sustainability & climate change for student clubs and organizations
Resources

Cornell Commitments
Climate literacy is a commitment and goal as identified in:

- Cornell University Climate Action Plan (2009, updated ongoing)
- Options for a Carbon Neutral Campus by 2035 (2016)
- Senior Leaders Climate Action Group’s priority actions (2017)
- Climate Action Advisory Group priority actions (2017)
- ACSF Luncheon Achieving climate change and sustainability literacy at Cornell (2016)

Research


Examples of Climate Literacy Integration

Dickinson College, Climate Change Education & Research Resources
dickinson.edu/info/20052/sustainability/2471/climate_education_and_research/4

NASA Changing Planet Study Group | NASA Cooling the Liberal Arts Curriculum
http://communities.earthportal.org/changingclimate/

This study group is a learning community to enrich interdisciplinary teaching about Earth science and the human dimensions of climate change at colleges, universities, and other teaching institutions. The Changing Planet Study Group will bring together science, social science, and humanities teachers to develop new courses or course modules, revise existing courses, explore learning pedagogies, and collaborate to engage new methods of teaching about climate change.