

CERTIFICATE IN CLIMATE CHANGE AND SOCIETY

GES 441	Analysis of Sustainable Energy Solutions
Program Total Credits:	
12	

Students enrolled in this certificate will be introduced to the major implications of climate change on people and earth systems with the purpose of building a person's climate change literacy, empowering them to reduce impacts of climate change, and giving students awareness of climate change mitigation/adaptation strategies to bring to their workplaces. Courses in the certificate educate students about:

- 1. What is climate change, why is it now a serious problem, and what can we do about it? (ATS 150)
- 2. What are the key responses and feedbacks of earth systems to climate change? (CLMT 275/GEOL 275)
- 3. What are the key issues for understanding how groups of people respond to and are affected by climate change? (ANTH 330 or ESS 365)
- 4. What adaptation (e.g., ATS 440/GES 440), mitigation (e.g., GES 441) solutions, or business strategies (e.g. BUS 440) might be employed in real world systems?

The recommended course sequence is outlined above; however, this sequence is not mandatory.

Learning Objectives

Upon successful completion of this certificate, students will be able to:

- 1. Identify why and how the climate is changing, and how scientists study these physical changes.
- 2. Analyze biophysical responses and feedbacks to climate change, including both aspects of climate change mitigation and adaptation.
- 3. Recognize and evaluate responses and feedbacks to climate change in social systems (e.g., policy and economic responses, justice and equity implications, and changes to social structures and systems).
- 4. Apply information to generate solutions for decarbonization and adaptation in human and natural systems.

Requirements Effective Fall 2025

Additional coursework may be required due to prerequisites.

Code	Title	Credits
Required Courses:		
ATS 150	Science of Global Climate Change (GT-SC2)	3
CLMT 275/GEOL 275	Climate Change and Earth System Interactions	3
Select one course from the following:		3
ANTH 330/ CLMT 330	Human Ecology	
ESS 365	Global Climate Justice	
ETST 365	Global Environmental Justice Movements	
Select one course from the following:		3
BUS 440	Corporate Sustainability Strategy	
GES 440/ATS 440	Sea Level Rise and a Sustainable Future	