

GRADUATE CERTIFICATE IN CARBON MANAGEMENT

Demand is growing for professionals trained in carbon accounting and tracking greenhouse gas emissions. The US Securities and Exchange Commission has proposed new rules requiring publicly traded companies to disclose their greenhouse gas emissions. Students in the Graduate Certificate in Carbon Management learn the technical skills needed to do greenhouse gas emission accounting and how to develop GHG accounting systems. They also learn about current and emerging policies, and the tradeoffs between carbon, nitrous oxide and methane.

The Graduate Certificate in Carbon Management is designed to deliver the latest fundamental knowledge and skills to practicing environmental/sustainability professionals to enable them to advance their careers by expanding into this emerging area.

This certificate program can be completed through traditional, on-campus coursework or through CSU Online (<https://www.online.colostate.edu/certificates/carbon-management/>).

[Students interested in graduate work should refer to the Graduate and Professional Bulletin.](#)

Learning Objectives

Upon successful completion of the program, students will be able to:

1. Apply quantitative and qualitative methods to the study of greenhouse gas emission management.
2. Explain greenhouse gas sources and sinks and how they might be managed.
3. Discuss current issues in greenhouse gas policies and climate change.
4. Evaluate the linkages between socioeconomic and ecological processes driving increases in atmospheric greenhouse gas concentrations.
5. Apply methods of conducting GHG mitigation analyses following current ISO standards.
6. Design, evaluate, set up, test and operate GHG information management systems and GHG assurance processes that are appropriate for specific applications and that conform to applicable standards.
7. Carry out basic greenhouse gas assessments using systems approaches and integrative methods, including the application of life cycle analysis and other numerical quantification tools.

Requirements Effective Fall 2019

Additional coursework may be required due to prerequisites.

Code	Title	Credits
Required Courses:		
ESS 524	Foundations for Carbon/Greenhouse Gas Mgmt	3
ESS 542	Greenhouse Gas Policies	2
ESS 543/ATS 543	Global Climate Change	2
Select one course from the following:		3-4

ANEQ 626	Animal Nutrition, Emissions, and Management
ESS 545	Applications in Greenhouse Gas Inventories
ESS 555/ ANEQ 555	Life Cycle Assessment for Sustainability
ESS 625/F 625	Ecology of Forest Production

Program Total Credits: 10-11

*This certificate may have courses in common with other graduate certificates. A student may earn more than one certificate, but a given course may be counted only in one certificate.