

ECL 298 002 / ATM 298 027: the Carbon Cycle (2-3 units), Winter 2022



Meeting Days/Times: 1.5 hours once per week, time/day TBD based on student availability
(Optional ATM133 lectures MWF 2:10-3:00pm, Hart 1150)

CRN: 21079 for ECL 298, 14318 for ATM 298

Faculty: Professor Kyaw Tha Paw U (ktpawu@ucdavis.edu)

Organizer: Lily Klinek (lpklinek@ucdavis.edu)

Course Overview

This course will focus on the terrestrial carbon cycle, studying the mechanisms for carbon assimilation, carbon flux between ecosystem pools, and techniques to quantify carbon uptake and carbon exchange rates. Special focus will be given to both eddy covariance and model-based approaches to studying and quantifying the carbon cycle. Based on student interest, topics such as climate controls on carbon, atmospheric carbon dynamics, and long-term terrestrial carbon storage can also be explored.

Course Format

The course will combine directed reading and discussion, student participatory seminars, model-based and instrumental applications and data analysis, and formal lectures. Grades will be derived from *participation* in the discussion of relevant scientific literature, *briefly presenting* on a topic from a list of possible areas, and *individual modeling and data manipulation* assignments after lectures on carbon cycle modeling techniques. With the option of attending select ATM 133 (Biometeorology) lectures, students can elect to receive an additional third unit for the class.

The course will meet once per week for an hour and a half, with optional ATM 133 (3rd unit) lectures meeting MWF 2:10-3:00pm, Hart 1150.

If interested, please email Lily Klinek (lpklinek@ucdavis.edu) and Kyaw Tha Paw U (ktpawu@ucdavis.edu)!