

**SPRING QUARTER 2026**

**CEE 298, Sem 1: Carbon Management**

**Instructor:** Dr. Fabian Rosner

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**Office:** 5731H Boelter Hall

**Lecture:** Monday and Wednesday, 10:00 – 11:50am

**Location:** 5514 Boelter Hall

**Class ID:** 547940200

**Course Description:**

This course links climate science fundamentals with quantitative evaluation of mitigation options. Topics include fundamentals of weather and climate metrics, radiation and energy balance, the carbon cycle, forcing/feedbacks, observed and projected climate change, impacts, and core climate policy concepts. Students then develop practical skills in techno-economic analysis (TEA) and life-cycle assessment (LCA) to compare technology pathways for decarbonization on consistent cost and emissions metrics. The course concludes with mitigation solutions such as electrification, afforestation, and carbon capture under considerations of technological, infrastructure and policy constraints.