



LEAP

Readings in Climate Data Science

[STAT GR8101 Topics in Applied Statistics](#)

Cross-listed with EAEE and DEES

Class Information

- Instructor: Tian Zheng (tz33@columbia.edu)
- Meeting time: Thursday 2:10 PM - 4:00 PM
- Classroom: TBD
- Class website: [Courseworks](#)

Course Description

This is a discussion-based “journal-club” style

Learning Objectives and outcomes

Objectives

- Expose geoscience students to cutting-edge data science methodologies;
- Expose data science students to open climate and ESM parameterization problems;
- Collaboratively engage students from both disciplines in discussion-based learning.

Outcomes

- Knowledge of climate data science: climate system models and machine learning.
- Research skills in reading and summarizing literature, problem setup, and hypothesis generation.
- Collaboration skills in peer learning and translational skills

Requirements and grading

Students are expected to participate in weekly “journal club” style lectures.

- Finish assigned reading before each weekly meeting
- Prepare presentation and discussion as assigned
- Attend LEAP’s Lectures in Climate Data Science talks (Selected Thursdays at 3PM).
- Final project: a short literature review on a climate data science topic selected in discussion with the course instructor and research mentors.

Grading

- Short written assignments in response to assigned readings (20%)
- In-class presentation (20%)
- Discussion participation (10%)
- Final project (50%)

Statement of academic integrity:

All assignments in this class are to be completed in accordance with [Columbia's Student Conduct and Community Standards](#).

Courseworks

Courseworks (<https://courseworks2.columbia.edu/>) will be used extensively throughout the semester for posting readings, assignments, announcements, and other communication.