

JEE 685 Climate Change: Physical Science Basis, Semester 1/2026

Date and Time: Thursday 13:30-16:30 hrs., Starting date: 13 Aug 2026 (on site)

Lecturer: Amnat Chidthaisong & Apisada Chulakadabba

Lecture No.	Modules		Topic	Course learning outcomes (CLO)
1	1: Science backgrounds necessary to understand physical climate change		Introduction & Overview: class procedures, expectation, and basic needs, climate change and sustainability	CLO1. Learner understands the basic scientific theory of current climate change.
2			Climate archives, data and models	
3			Plate tectonic and climate	
4			Orbital-scale climate change	
5			Greenhouse gases and climate I	
6			Greenhouse gases and climate II	
7			Climate projection and future climate	
Oct 6, Modul 1 Evaluation				
9	2: Linking science backgrounds to impacts and mitigation		Climate change and urban environment I	CLO2. Learner understands the linkage and application of basic understanding with the current climate actions aiming at greenhouse gas emission reduction and at reducing vulnerability to the impacts of climate change.
10			Climate change and urban environment II	
11			UNFCCC, Kyoto Protocol, Paris Agreement	
12			Carbon footprints, carbon credit, carbon market, carbon reduction standards	
13			Nature-based solutions	
14			Selected topics on impacts of climate change to socioeconomic development	
15			Class summary & recap	
Module 2 Evaluation				