

**Lecture Dates** for A ATM405 "Water and Climate Change" by Prof. Dai in Fall 2022

Class Time and Room: TuTh 1:30-2:50PM ETEC 480

Meeting#	Date	Lecture Topic
<b>Part I The Role of Water on Earth: 3 Lectures</b>		
1	Tue 8/23	An Overview of Water-related Issues
2	Thu 8/25	The Global Water Cycle
3	Tue 8/30	Water's Role in Earth's Climate System
<b>Part II Introduction to Climate Change</b>		
4	Thu 9/01	Introduction to Earth's Climate
5	Tue 9/06	Greenhouse effect and global warming
6	Thu 9/08	Climate modeling
7	Tue 9/13	Climate Projections
<b>Part III Observed and Model-projected Water-related Climate Changes</b>		
8	Thu 9/15	Climate Data & Observations
9	Tue 9/20	Changes in water vapor and clouds
10	Thu 9/22	Changes in precipitation and evaporation
11	Tue 9/27	Changes in soil moisture and ground water
12	Thu 9/29	Changes in runoff, discharge and freshwater resources
13	Tue 10/04	Changes in the cryosphere: snow cover, sea-ice, and glaciers
14	Thu 10/06	Review for mid-term exam
15	Thu 10/13	Mid-term exam
<b>Part IV Impacts of Water-related Climate Changes</b>		
16	Tue 10/18	Sea-level rise
17	Thu 10/20	Drought - increased water stress
18	Tue 10/25	Drought - increased water stress
19	Thu 10/27	Other Impacts: freshwater resources, health, etc.
<b>Part V Regional Analysis of Climate Change and Water Resources</b>		
20	Tue 11/01	North America
21	Thu 11/03	Latin America
22	Tue 11/08	Eurasia
23	Thu 11/10	Africa and Australia
<b>Part VI Climate Change Mitigation Measures and Water</b>		
24	Tue 11/15	Mitigation: Renewable Energy
25	Thu 11/17	Student oral presentations - Group 1
26	Tue 11/22	Hydropower
27	Tue 11/29	Student oral presentations - Group 2
28	Thu 12/01	Student oral presentations - Group 2
	Mon 12/13	Final term paper due