

Course Introduction

IN 00.41: Climate Change Challenges and Responses 1(1-0)

Prof. Rajendra P. Shrestha

Prof. Shobhakar Dhakal

Dr. Bindu N. Lohani

17 January 2023



What people say about climate change?



- “By polluting the oceans, not mitigating CO₂ emissions and destroying our biodiversity, **we are killing our planet.** Let us face it, **there is no planet B.**”
- **Climate change is not science fiction, it’s is real...**
- “**Climate change is the greatest threat to our existence** in our short history on this planet. Nobody’s going to buy their way out of its effects.”
- “**Climate change knows no borders...**
- “The world is reaching the tipping point beyond which **climate change may become irreversible.**
- “**Climate change is the single greatest threat to a sustainable future** but, at the same time, **addressing the climate challenge presents a golden opportunity** to promote prosperity, security and a brighter future for all.”
- “Climate change is a terrible problem, and it **absolutely needs to be solved.** It deserves to be a huge priority.”
-

Climate Change Challenges and Responses

Course objective

to provide a wide-ranging contemporary debate and progresses linked with climate change for enhancing students' knowledge base and critical thinking in their respective field of profession.



Learning Outcomes

- Describe the contemporary and relevant climate change issues
- Discuss the impact and vulnerability associated with climate change
- Analyze available mitigation and adaptation options
- Explain the required enabling environment (climate finance, policies) for addressing climate change issues

Lecture topics

Week/Date	Topic	Lecture topic	Speaker(s)
1 (17 Jan 2023)	0	Course introduction	Prof. Rajendra Shrestha, AIT
2 (24 Jan 2023)	1	Sustainable Development: historical evolution, milestones, and Current Status	Dr Bindu Lohani, ADB
	2	Climate change overview, Paris Agreement and international climate negotiation, IPCC (including recent COP)	Prof. Shobhakar Dhakal, AIT
3 (31 Jan 2023)	3	Climate Change: Science, Causes, Impact, Vulnerability	Prof. Rajendra Shrestha
	4	Deep Carbonization Pathways with Country Examples	Prof Tae Yong Jung, Yonsei university, Korea
4 (7 Feb 2023)	5	Climate Economics, Carbon Market and Carbon Pricing	Prof. Shobhakar Dhakal/ Dr Bindu Lohani
	6	Carbon neutrality under 1.5 degree and other scenario focusing on Energy sector (includes Energy Transition)	Prof. Shobhakar Dhakal/ Dr Bindu Lohani
5 (14 Feb 2023)	7	Cities and Climate Change: Science, Policy and investments Sustainable City Development in Asia: Challenges, Opportunities and The Way Forward	Dr Hongsoo Lee, ADB
	8	Climate Change and Circular Economy (with focus on waste management)	Dr Bindu Lohani
6 (21 Feb 2023)	9	Adaptation needs, options, and planning under uncertainty (also to include losses and damages)	Dr Prasad Modak, Founder CEO, EMC
	10	Mainstreaming Adaptation for Water Security and Resilience or Climate Change and Water Sector: The Way Forward (something like this)	Dr Peter King, IGES
7 (28 Feb 2023)		Midsem exam	Ms Neeta Pokhrel, ADB
8 (7 Mar 2023)	11	Land use and Climate Change: key links to ecosystem, REDD+ intro	
	12	Needs for food systems transformation for climate change mitigation and sustainable development	Prof. Rajendra Shrestha
9 (14 Mar 2023)	13	Climate policies and institutions	Dr Prajal Pradhan Potsdam institute, Germany
	14	Nature-based Solutions for addressing Climate Change and poverty	
10 (21 Mar 2023)	15	Climate finance for Mitigation and Adaptation: An Overview	Mr David S. McCauley, GEF / Mr Robert J. Dobias
	16	Bonds for Sustainable development: Focus on Climate	Mr Robert J. Dobias (bobdobias@gmail.com)
		Student presentations / Visit to RIMES	Jingdong Hua, IFRS foundation,

Learning resources

- No textbook
- Several reference books, journals, other resources given in course catalogue
- Lecture presentation file (also containing list of readings) will be made available before the lecture

Grading :

Midsem exam (30%) - Closed book

Final exam (30%) - Closed book

Assignments (40%)

- Group project (30%)

- Participation (10%)

Class Schedule:

Tuesday: 1000-1200 hr

SMC ET 108

Zoom Meeting ID: 578 722 2404

Password: 527538

Getting lecture materials:

From Moodle

Search course: IN00.41 Climate Change Challenges and Responses

Or go to

School → SERD → ED82 - Climate Change and Sustainable Development

Self-enrollment key: iwc-cccr

Contact for course-related inquiry: rajendra@ait.ac.th