

Introduction to Climate Change

Course Name	Course type (credit/hours)	Elective course(3/3)	Course code	E049
	Target students Division/major/grade	Environmental and safety Engineering/Junior	Opening semester	2021 2ND SEMESTER
	Class time and classroom	Tue E(WEB239)Fri E(WEB239)	English Grade	A(100%English)
Reference to this course	Prerequisite courses			
	Related basic courses	Chemistry, Biology, Physics		
	Recommended concurrent courses			
	Related advanced courses			

Instructor	Name (title/division)		Jae Young Lee(Assistant Professor, Environmental and safety Engineering)		
	Office Room Number	West Hall 313	Office phone Number	031-219-2404	e-mail
	Office hours	Wednesday 1:00-3:00 PM		Homepage address	jaeylee.com
Teaching Assistant	Name (title/division)				
	Office Room Number		Office phone Number		e-mail

1. Introduction

In this Introduction to Climate Change class, we will understand reasons, effects, and adaptations of climate change. And will learn more about strategies, sustainable developments and renewable energy to solve the climate change problems. This class will be providing fundamental information for future climate change.

2. Course Objectives

The aim of this class is written below:

1. Understanding general information of climate change
2. Figuring out effects of climate change in multiple ways and locations
3. Learning about adaptation strategies for climate change in worldwide
4. Understanding sustainable developments for the future

3. Class types and activities

This class is English lecture based class.
This class will include midterm, final, individual presentation (in Korean) and one report.

4. Teaching Method

- | | |
|---|---|
| <input checked="" type="checkbox"/> lecture | <input type="checkbox"/> discussion and debate |
| <input checked="" type="checkbox"/> team project(presentation and case studies) | <input type="checkbox"/> experiments(role-playing,etc) |
| <input type="checkbox"/> designing and production | <input type="checkbox"/> on-site learning(on-site training) |
| <input type="checkbox"/> others | |

5. Support Systems in Use

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> AjouBb | <input type="checkbox"/> automatic recording system | <input type="checkbox"/> web-based assignment |
| <input type="checkbox"/> cyber lecture | <input type="checkbox"/> online content | |
| <input type="checkbox"/> class behavior analyzing system | <input type="checkbox"/> others | |

6. Teaching Tools

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|--|--|---|
| <input type="checkbox"/> PBL(Problem Based Learning) | <input checked="" type="checkbox"/> CBL(Case Based Learning) | <input type="checkbox"/> TBL(Team Based Learning) |
| <input type="checkbox"/> UR(Undergraduate Research) | <input type="checkbox"/> FL(Flipped Learning) | <input type="checkbox"/> DSAL(Data Science Active Learning) |
| <input type="checkbox"/> others | | |

7. Knowledge and ability required for taking this course

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance		10	
midterm exam	1	35	
final exam	1	35	
quiz			
presentation	1	10	
discussion			
homework	1	10	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Ref.	Climate Change 2014 Impac, Adaptation, and VulnerabilityPart A: Global and Sectoral Aspects	IPCC	Cambridge University Press	2014
Ref.	Climate Change 2007 The Physical Science Basis	IPCC	Cambridge University Press	2007
Ref.	Climate Change 2013 The Physical Science Basis	IPCC	Cambridge University Press	2013

10. Class system and Class shedule

<ol style="list-style-type: none"> 1. General information of climate change 2. Effects of climate change in diverse environmental aspects 3. Human health effects and social effects 4. Adaptation strategies 5. Climate change prediction and climate models 6. Sustainable developments and renewable energy
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< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Introduction	E	Jae Young Lee			
2	General information of climate change	E	Jae Young Lee			

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
3	Effects of climate change in diverse environments	E	Jae Young Lee			
4	Effects of climate change in diverse locations	E	Jae Young Lee			
5	Individual presentation	E	Jae Young Lee			
6	Individual presentation	E	Jae Young Lee			
7	Human health and social effects	E	Jae Young Lee			
8	Midterm	E	Jae Young Lee			
9	Adaptation strategies	E	Jae Young Lee			
10	Adaptation strategies	E	Jae Young Lee			
11	Climate change prediction and climate models	E	Jae Young Lee			
12	Climate change prediction and climate models	E	Jae Young Lee			
13	Renewable energy	E	Jae Young Lee			
14	Renewable energy	E	Jae Young Lee			
15	Climate change and renewable energy in Korea and wrap up	E	Jae Young Lee			
16	Final	E	Jae Young Lee			

11. Other items of notification