

Anan College		Year	2024	Course Title	Disaster Prevention Engineering
Course Information					
Course Code	5416C02		Course Category	AC / Compulsory	
Class Format	Lecture		Credits	Academic Credit: 2	
Department	Course of Civil Engineering		Student Grade	Adv. 1st	
Term	First Semester		Classes per Week	前期:2	
Textbook and/or Teaching Materials	Fuchida et al. : kankyo・toshi system kyokasyo series 20 bousaikougaku, korona sha				
Instructor	Osada Kengo, Inoue Takafumi				
Course Objectives					
1. Able to explain earthquake disasters and their countermeasures. 2. Able to explain geological disasters and their countermeasures. 3. Able to explain volcanic disasters and their countermeasures. 4. Able to explain disasters regarding river and debris flow and these countermeasures. 5. Able to explain coastal disasters and these countermeasures. 6. Able to explain recovery and reconstruction from disaster.					
Rubric					
	Ideal Level		Standard Level		Minimum Level
Course Objective 1	Able to give detailed explanations about earthquake disasters and their countermeasures with concrete examples.		Able to give explanations about earthquake disasters and their countermeasures with examples.		Able to mention examples of earthquake disasters. However, not able to explain the countermeasures sufficiently.
Course Objective 2	Able to give detailed explanations about geological disasters and their countermeasures with concrete examples.		Able to give explanations about geological disasters and their countermeasures with examples.		Able to mention examples of geological disasters. However, not able to explain the countermeasures sufficiently.
Course Objective 3	Able to give detailed explanations about volcanic disasters and their countermeasures with concrete examples.		Able to give explanations about volcanic disasters and their countermeasures with examples.		Able to mention examples of volcanic disasters. However, not able to explain the countermeasures sufficiently.
Course Objective 4	Able to thoroughly explain disasters regarding river and debris flow and these countermeasures.		Able to explain disasters regarding river and debris flow and these countermeasures.		Able to slightly explain disasters regarding river and debris flow and these countermeasures.
Course Objective 5	Able to thoroughly explain coastal disasters and these countermeasures.		Able to explain coastal disasters and these countermeasures.		Able to slightly explain coastal disasters and these countermeasures.
Course Objective 6	Able to thoroughly explain recovery and reconstruction from disaster.		Able to explain recovery and reconstruction from disaster.		Able to slightly explain recovery and reconstruction from disaster.
Assigned Department Objectives					
A-3 D-1					
Teaching Method					
Outline	In recent years, many large disasters have been occurring. A learner studies disasters regarding earthquakes, rivers, and coastal and these countermeasures.				
Style	In the first quarter, you will learn about countermeasures against earthquake disasters, geological disasters, and volcanic disasters, including basic matters such as the mechanism of earthquakes. In the second quarter of this class, students learn countermeasures against disasters regarding water: flood flow, inundation flow, debris flow, tsunamis, and high tides. (The learning time: 30 hours, The self-study time: 60 hours)				
Notice					
Characteristics of Class / Division in Learning					
<input type="checkbox"/> Active Learning		<input type="checkbox"/> Aided by ICT		<input type="checkbox"/> Applicable to Remote Class	
				<input type="checkbox"/> Instructor Professionally Experienced	
Course Plan					
			Theme	Goals	
1st Semester	1st Quarter	1st	Earthquake disaster	Able to explain the characteristics of direct damage and secondary disasters caused by earthquakes. Able to explain the damage of various structures due to earthquakes and countermeasures.	
		2nd	Earthquake disaster	Able to explain the basic concept of the seismic design method for structures.	
		3rd	Earthquake disaster	Able to explain the characteristics of direct damage and secondary disasters caused by earthquakes. Able to explain the damage of various structures due to earthquakes and countermeasures.	
		4th	Earthquake disaster	Able to explain the basic concept of the seismic design method for structures.	
		5th	Geological disaster	Able to explain ground subsidence and slope disasters.	

		6th	Geological disaster	Able to explain ground subsidence and slope disasters.
		7th	Volcanic disaster	Able to explain volcanic disasters.
		8th	Midterm examination	
	2nd Quarter	9th	Flood flow disaster	Able to explain flood flow disaster.
		10th	Flood flow disaster	Able to explain flood flow disaster.
		11th	Urban disasters by flood and inundation	Able to explain urban disasters by flood and inundation flow.
		12th	Debris flow	Able to explain the disaster of debris flow.
		13th	Coastal disaster	Able to explain coastal disasters: high tides, tsunamis, and coast erosion and deposition disasters.
		14th	Disaster countermeasure and disaster prevention planning	Able to understand disaster countermeasures and explain disaster prevention planning.
		15th	Recovery and reconstruction from disaster	Able to explain recovery and reconstruction from a huge disaster.
		16th	Return of the final examination result	

Evaluation Method and Weight (%)

	Midterm/Final Exam	Quiz	Portfolio	Presentation/Attitude	Other	Total
Subtotal	70	0	30	0	0	100
Basic Proficiency	20	0	10	0	0	30
Specialized Proficiency	50	0	20	0	0	70
Cross Area Proficiency	0	0	0	0	0	0