

Subject	Water and Waste Engineering (Online)		Credits	2
Subject Type	Type 1 Subject	Schedule	Fri. 3rd (13:00-14:30)	
Course	Master's Course	Instructor	Assoc. Prof. HIRAYAMA, Nagahisa	
Keywords	Water system, Waste treatment system, Water supply engineering, wastewater engineering, Waste Management Engineering			
Outline	We will give lectures on the water and wastewater system, waste management system, the management system and cutting-edge technologies for water, waste, and human health and the environment. In addition, we consider the water and waste system from the viewpoint of natural disaster, climate change, and depopulation society. And, we will discuss the emergency environmental management.			
Objectives	• To management system and technology for water and waste management system • To discuss and explain on water, wastewater and waste management. • To discuss the future water and waste system with the influence on natural disaster, climate change, and depopulation society. • To understand emergency environmental management.			
Basic subject	Sanitary Engineering, Water and Waste Policy, Urban Environmental Systems Engineering			
Related subject	N.D.			
Contents	1. 4/16	Introduction		
	2. 4/23	Drinking water quality risk management		
	3. 4/30	Water supply system in Japan		
	4. 5/7	Water safety plan		
	5. 5/14	Water quality risk management in emergency		
	6. 5/21	Recovery of clean water		
	7. 5/28	Wastewater treatment system in Japan		
	8. 6/4	Watershed water quality risk management		
	9. 6/18	Waste management system in Japan		
	10. 6/25	Reporting		
	11. 7/2	Solid waste management technology		
	12. 7/9	Disaster debris management system		
	13. 7/16	Disaster resilience and water system		
	14. 7/30	Presentation 1		
	15. 8/6	Presentation 2		
Course Textbook	Handouts Recommended reference books will be introduced in class. Presentation & Materials: English Oral explanations: English Questions in English: Available			
Grading Criteria	Participation 45%, Presentation 25%, and Report 30%			
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