View Syllabus Information

Even after classes have commenced, course descriptions and online syllabus information may be subject to change according to the size of each class and the students' comprehension level.

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Course Information

Year	2021	School	School of Creative Science and Engineering		
Course Title	Environmental Engineering B IPSE Course				
Instructor	SAKAKIBARA, yutaka／SAGAWA, Tatsuyuki				
Term/Day/Period	spring semester Thur.4				
Category	Elective Compulsory Subjects	Eligible Year	2nd year and above	Credits	2
Classroom	53-201	Campus	Nishi-Waseda(Former: Okubo)		
Course Key	27GD032012	Course Class Code	01		
Main Language	English				
Class Modality Categories	On-demand (Schedule Restrictions)				
Course Code	CSTX21ZL				
First Academic disciplines	Civil Engineering				
Second Academic disciplines	Civil Engineering				
Third Academic disciplines	Civi and Environmental Engineering				
Level	Intermediate, developmental and applicative	Types of lesson	Lecture		

Syllabus Information

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Course Outline	This course will introduce the basic concepts and technologies on the remote sensing of water resources, drinking water supply and municipal wastewater treatment system. The course is a hybrid (face-to-face and online) class. Please check the details in Moodle.
Objectives	to gain a basic understanding of the following topics; 1) principle of remote sensing with fundamental skill to acquire data from satellite, 2) design of water infrastractures (i.e. drinking water supply and municipal wastewater treatment system), 3) principle and mechanism of water treatement processes, 4) conservation and management of fresh water body.
before/after course of study	Short test will be conducted to check students' understanding llevels. Moreover, assignments will be given to deepen students' understandings of important topics in the class.
Course Schedule	Week 1 (4/8): Introduction (Drs. Sagawa and Sakakibara) Please bring your PC in class on the following remote sensing. Week 2 (4/15): Basics of Remote Sensing (Dr. Sagawa) Week 3 (4/22): Aquatic Remote Sensing (Dr. Sagawa) Week 4 (4/29): Water Resources Management (Dr. Sagawa) Week 5 (5/6): Exercise of Remote Sensing (1) (Dr. Sagawa) Week 6 (5/13): Exercise of Remote Sensing (2) (Dr. Sagawa) Week 7 (5/20): Drinking Water Supply 1 (Dr. Sakakibara) Week 8 (5/27): Drinking Water Supply 2 (Dr. Sakakibara) Week 9 (6/3): Drinking Water Supply 3 (Dr. Sakakibara) Week 10 (6/10): Presentation and Discussion on Assignment (B) Week 11 (6/17): Municipal Wastewater Treatment System 1(Dr. Sakakibara) Week 12 (6/24): Municipal Wastewater Treatment System 2 (Dr. Sakakibara) Week 13 (7/1): Municipal Wastewater Treatment System 3 (Dr. Sakakibara) Week 14 (7/8): Presentation and discussion on assignment (C) Week 15 (7/15): Final Exam and Commentary on Suggested Answer (Drs. Sagawa and Sakakibara)
Textbooks	Lecture materials will be distributed in class. Personal computer wll be used in the class on Remote Sensing.
Reference	Mackenzie L. Davis, Susan J. Masten, "Principles of Environmental Engineering and Science", 3rd, ISBN: 978-1-259-06047-2
Evaluation	1) Final examinations (50%) 2) Attendance (# of attendance should be more than 10) 3) Short tests and assignment (50%)
Note / URL	