

Course No.	M1586.001500	Lecture No.	001	Course Title (Subtitle)	Water Pollution Control	Credit	3
Representative Instructor	Name	Choi, Yongju (post : Assoc. Prof.)		Homepage	http://wqe.snu.ac.kr		
	E-mail	ychoi81@snu.ac.kr		Phone No.	02-880-7376		
	Interview Time/Place : TBD						
Prerequisite Course	Environmental Engineering						
* 1.Purpose of Course	This course deals with engineering approaches to protect human and ecological health against water pollution caused by human activities. Students will gain understanding on the collection, transport, treatment, and discharge of wastewater and stormwater and gain insight on the possible approaches to improve the sustainability of water management through recovery of energy resources from the waters. Students will study the engineering principles, design, operation, and management of unit processes available for treatment of and energy/resource recovery from the waters. Students will also train themselves to utilize the improved understanding on the subject, to design the whole system of wastewater and stormwater management.						
* 2.Materials and Reference	1. Lecture note(ppt) 2. Metcalf & Eddy, AECOM. Wastewater Engineering: Treatment and Reuse, 5 th ed., McGraw-Hill, 2015.						
* 3.Evaluation Method	Attendance	Assignment	Midterm	Final	Others	Total	
	15	15	25	25	25	0	
	Attendance Policy : Students who are absent for over 1/3 of the class will receive a grade of 'F' or 'U' for the course. (Exceptions can be made when the cause of absence is deemed unavoidable by the course instructor.)						
Team project. Each team will select a certain type of polluted water and design a system that enables safe discharge of treated water into the environment in a sustainable manner. Team project presentations will be given on the last day of the course.							
* 4.Lecture Plan	<ul style="list-style-type: none"> ◇ W1: Introduction / Basics of water quality ◇ W2: Physical characteristics of water / Chemical characteristics of water I ◇ W3: Chemical characteristics of water II / Biological characteristics of water I ◇ W4: Biological characteristics of water II / Wastewater management ◇ W5: Wastewater treatment overview / Reactions and reactors ◇ W6: Reactor analysis / Physical unit processes I ◇ W7: Physical unit processes II & III ◇ W8: Chemical unit processes ◇ W9: Fundamentals of biological treatment ◇ W10: Biological nutrient removal ◇ W11: Practical applications of biological treatment ◇ W12: Energy-efficient or producing biological treatment / Decentralized systems ◇ W13: Final exam / Term project discussion – initial design & feedback, revised design & feedback ◇ W14: Term project discussion – revised design & feedback, Term project presentation <p>Note: Due to the semester schedule adjustment (15 weeks to 14 weeks), the schedule for the term project discussion is shortened from W13-W14 to 2nd half of W13-1st half of W14. During the term project discussion period, in addition to in-class discussions, each team will make a separate appointment for discussion at the instructor's office.</p>						
5.References to Course Registration							

6. Support Services for Students with Disabilities ※ You can modify these default contents.	For Lectures	<input type="checkbox"/> Visual Impairment: Make textbooks(digital textbook, braille textbook, enlarged textbook etc.), Allow note takers <input type="checkbox"/> Physical Disability: Make textbooks (digital textbook), Allow note takers and assistants <input type="checkbox"/> Hearing Impairment: Allow note takers and translators, Allow lecture recording <input type="checkbox"/> Health Impairment: Excuse absence due to health problems, Allow note takers <input type="checkbox"/> Learning Disability: Allow note takers <input type="checkbox"/> Intellectual Disability / Autism Spectrum Disorder: Allow note takers and mentors
	For Assignments & Evaluations	<input type="checkbox"/> Visual Impairment / Physical Disability / Hearing Impairment / Health Impairment / Learning Disability: Extend assignment deadlines, Offer alternate assignment submission and response method, Extend testing period, Offer alternate testing method, Offer different testing room <input type="checkbox"/> Intellectual Disability / Autism Spectrum Disorder: Offer individualized assignments and alternative evaluations
	Others	Students who take this course can get appropriate level of support service including the support listed above depending on the students' individual characteristics and needs through consultation with professors and the Support Center for Students with Disabilities. If you have any questions concerning support service for students with disabilities you can contact Professor *** (02-880-****) or Support Center for Students with Disabilities (02-880-8787).

◇ fields with * : required fields

◇ If you don't release the syllabus, you may have some disadvantages.