

朝陽科技大學 093學年度第2學期教學大綱  
Water quality control and management 水質控制與管理

當期課號	7677	Course Number	7677
授課教師	莊順興	Instructor	CHUANG,SHUN HSING
中文課名	水質控制與管理	Course Name	Water quality control and management
開課單位	環境工程與管理系碩士在職專班一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	本課程教學目標為了解各種主要工業用水之水質標準與特性，了解用水之管理、處理及再利用等技術，建立水資源有效利用之觀念，並兼具應用水處理單元之技術能力。	Objectives	This course introduces the technologies and techniques related to water quality control and water resource management. Some of major topics include: water budget and balance in plants, water quality and criteria for industries, pumping and pipe flow system, in plant water and wastewater management, water treatment units, wastewater treatment process and reclamation, recycling and reuse. This course also covers some of case study on water conservation, recycling and reuse in plant. The objectives of course are to enable students to be aware of the water supply and pollution problems associated with industrial production, also, to establish the ability on total water management in plant.
教材	1.自編教材 2.Wastewater Reclamation and Reuse: Water Quality Management Library, Volume X, Takashi Asano (ed.), 1998	Teaching Materials	
成績評量方式	1.平時成績 20%，2.學習評量作業(含小考)20%，3.期中考30%，4.學期報告30%，	Grading	1.Class participation 20%，2.Problem assignment 20%，3.Midterm exam 30%，4.Term paper 30%
教師網頁	-		
教學內容	本課程介紹水質之處理技術及水再生利用之管理策略，課程結合水及廢水處理技術、公共健康議題、基礎設施規劃、技術可靠度、經濟分析及用水管理等議題，以建立完整水質控制與管理之應用能力為目標。	Syllabus	This course assembles, analyzes, and reviews the various aspects of wastewater reclamation, recycling, and reuse in most parts of the world. It considers the effective integration of water and reclaimed wastewater, public health issues, infrastructure and facilities planning, waste-water treatment plant siting, treatment process reliability, economic and financial analysis, and water utility management.

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