

朝陽科技大學 093學年度第1學期教學大綱  
Pollution Control Engineering and Practice 污染防制工程實務

當期課號	7758	Course Number	7758
授課教師	曾治乾	Instructor	TSENG,CHIE CHIEN
中文課名	污染防制工程實務	Course Name	Pollution Control Engineering and Practice
開課單位	環境工程與管理系碩士在職專班二A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	針對理論與實例，講授土壤、水、空氣及廢棄物污染等污染來源，相關防治法規，污染監測與安全評估技術，污染防治技術，使學者習得環境污染監測、評估與防治工程之知識。	Objectives	The object of this course is to provide the practicable technologies of environmental pollution prevention and remediation. Topics including: The laws and regulations of environmental pollution prevention and remediation, pollution sources, environmental monitoring and risk assessment, technologies of prevention and remediation.
教材	課本: Wastewater Engineering-treatment and reuse, Metcalf & Eddy (international edition) 台中 滄海書局	Teaching Materials	
成績評量方式	平時成績(含出席率)20 % 期中考 (40%) 期末報告 (40%)	Grading	Attendance 20% Mid-term Exam 40% Term Paper 40%
教師網頁	e-mail: <a href="mailto:ChieChien_Tseng@itri.org.tw">ChieChien_Tseng@itri.org.tw</a>		
教學內容	第一週 課程介紹 第二週 生物處理程序基本觀念 第三週 ~ 第六週 喜氣活性污泥程序 第七週 ~ 第九週 固定膜生物處理程序 第十週 (11/17) 期中考 第十一週 ~ 第十三週 厭氧生物處理程序 第十四週 薄膜生物反應器原理及應用 第十五週 高級氧化程序原理及應用 第十六週 水回收技術及應用 第十七週 水回收技術及應用 第十八週 分組報告-繳交期末報告 第十九週 期末考週 (停課)	Syllabus	Week 1 (9/22):- Introduction Week 2 (9/29):- Fundamentals of Biological Treatment Week 3 (10/6):- Suspended Growth Biological Treatment Processes Week 4 (10/8):- Suspended Growth Biological Treatment Processes Week 5 (10/13): - Suspended Growth Biological Treatment Processes Week 6 (10/20):- Suspended Growth Biological Treatment Processes Week 7 (10/27):-Attached Growth and Combined Biological Treatment Processes Week 8 (11/3):-Attached Growth and Combined Biological Treatment Processes Week 9 (11/10) : Attached Growth and Combined Biological Treatment Processes Week 10 (11/17):- Mid Term Exam Week 11 (11/24):- Anaerobic suspended and Attached Growth Biological Treatment Processes Week 12 (12/1):- Anaerobic suspended and Attached Growth Biological Treatment Processes Week 13 (12/8):- Anaerobic suspended and Attached Growth Biological Treatment Processes Week 14 (12/15):- Membrane bioreactor, MBR Week 15 (12/22):- Advance Oxidation process – Fenton Process Week 16 (12/29):- Water Reuse Week 17 (1/5):- Water Reuse Week 18 (1/12):- Group Discussion, Term paper due Week 19 (1/19):- Final exam week