朝陽科技大學 096學年度第1學期教學大綱
Environmental Chemistry 環境化學

當期課號	1649	Course Number	1649
授課教師	章日行	Instructor	CHANG,JIH HSING
中文課名	環境化學	Course Name	Environmental Chemistry
開課單位	環境工程與管理系(四日)一A	Department	
修習別	必修	Required/Elective	Required
學分數	3	Credits	3
課程目標	本課程主要包括三部分：1. 水化學2. 大氣化學3. 土壤化學。水化學介紹酸鹼平衡、複合化學、氧化還原反應、溶解化學、膠體化學、水體生物化學、水污染及水處理。大氣化學之內容包含大氣及大氣化學、大氣中的微粒、氣相無機污染物、有機空氣污染物、光化學煙霧及全球大氣污染問題。土壤化學介紹土壤特性及土壤污染問題。	Objectives	This course comprises three major parts: 1. Water chemistry. 2. Atmospheric chemistry. 3. Soil chemistry.Water chemistry introduces acid-base equilibrium, complex chemistry, oxidation-reduction reaction, solubility chemistry, colloid chemistry, biochemistry in water, water pollution and water treatment.Atmospheric chemistry includes particles in the atmosphere, gaseous inorganic air pollutants, organic air pollutants, photochemical smog and the endangered global atmosphere.In soil chemistry, the soil characteristics and soil pollution problems would be included.
教材	Basic Concepts of Chemistry，Leo J. Malone.〔高立圖書公司〕	Teaching Materials	
成績評量方式	1. 期中考 30% 2. 討論表現(出席率、小考) 40% 3. 期末考 30%	Grading	1.mid-term exam 30% 2. quiz 40% 3.final exam 30%
教師網頁			
教學內容	1.普通化學的基本概念(分子組成，化學方程式) 2.週期表及原子論(元素及化合物，軌域理論，化學鍵) 3.化學反應(沉澱，中和，計量化學) 4.環境應用化學(水溶液，酸鹼，氧化還原，核化學)	Syllabus	1. Basic concepts of general chemistry(compound and chemical equation) 2.periodic table and atomic theory (element, orbital theory, and chemical bond) 3.chemical reaction (precipitation, neutralization, and stoichaometry) 4.environmental chemistry application(aquatic solution, acid and base, redox reaction, and nuclear chmistry)

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