朝陽科技大學 097學年度第2學期教學大綱
Material Chemistry 材料化學

當期課號	1770	Course Number	1770
授課教師	楊聰仁	Instructor	YANG,TSONG JEN
中文課名	材料化學	Course Name	Material Chemistry
開課單位	應用化學系(四日)三A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	本科目著重在以化學方法製備各種材料，如：電子材料、半導體材料、陶瓷材料、磁性材料與特殊金屬材料，同時探討材料在化學上之應用，例如：氣體吸附、催化反應等，使學生瞭解材料與化學跨領域的學理應用。	Objectives	This course is aimed at Chemical preparations of electronic materials, semiconductor materials, ceramic materials, magnetic materials, and special metallic materials, Chemical applications of materials is another topic of this course, especially adsorption of gases, catalytic reactions. The interdisciplinary training between materials science and Chemistry will be offered for students during course study.
教材	自行編寫講義。 Inorganic Materials Chemistry; Mark T. Weller, Oxford 1994. Materials Science and Engineering An Introduction; William D.Callister, Jr. Wiley 2003.	Teaching Materials	Course hand-out. Inorganic Materials Chemistry; Mark T. Weller, Oxford 1994. Materials Science and Engineering An Introduction; William D.Callister, Jr. Wiley 2003.
成績評量方式	平時成績 40%, 期中考 30%, 期末考 30%	Grading	Problem Sets and Quizes 40%, Mid-term Exam. 30%, Final Exam. 30%.
教師網頁			
教學內容	1. 金屬材料製造與加工技術。 2. 各種材料介紹:陶瓷材料,半導體材料, 磁性材料,複合材料,高分子材料,奈米材 料。 3. 電池化學與電極材料。 4. 材料微結構分析。	Syllabus	1.Manufacture and fabrication of metallic materials. 2.Introduction of materials: ceramic materials, semiconducting materials, magnetic materials, composite materials. polymeric materials, nanomaterials. 3.Electrochemistry and electrode materials. 4.Analysis of material microstructures.

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