朝陽科技大學 093學年度第1學期教學大綱
Science and Technology in Modern Life 科技與生活

當期課號	0606	Course Number	0606
授課教師	陳靖棻	Instructor	CHEN,CHIN FUN
中文課名	科技與生活	Course Name	Science and Technology in Modern Life
開課單位	自然與應用科技類(日)	Department	
修習別	選擇必修	Required/Elective	Topics in Natural and Applied Sciences
學分數	2	Credits	2
課程目標	隨著科技的發展，人類的生活形態不斷地轉變。本課程將介紹物理、化學與生物等科技之基本觀念、在人類文明中所扮演之角色以及在自然生態、環境、社會、健康…等層面所造成之影響與衝擊，期待同學能以理性與人性爲出發點，培養出一個科學的人生觀。	Objectives	Students are introduced to the study of scientific and technological developments in human life. They should develop their understanding of construction, manufacturing, energy/transportation and information/communication as well as biotechnology and nanotechnology. Students should be able to comprehend physical, chemical and biological concepts and to understand the impacts brought by the science and technology on environment and human society.
教材	自編講義。	Teaching Materials	
成績評量方式	測驗（30%）、上台報告（30%）、平時成績（出席與討論）（40%）	Grading	Quiz (30%)、oral presentation (30%)、class performance (attendance and participation) (40%)
教師網頁	http://www.cyut.edu.tw/~argentina		
教學內容	[課程目標]隨著科技的發展，人類的生活形態不斷地轉變。本課程將介紹物理、化學與生物等科技之基本觀念、在人類文明中所扮演之角色以及在自然生態、環境、社會、健康…等層面所造成之影響與衝擊，期待同學能以理性與人性爲出發點，培養出一個科學的人生觀。 [教學內容] 1. 科技與社會 2. 科技的內涵 3. 世界科技史 4. 營建與製造：材料、機械、工業… 5. 能源與運輸：火、水、風、石油化學… 6. 資訊與傳播：資料、資訊、管理、傳播… 7. 污染：空氣、土地、水 8. 疾病與人口 9. 生態影響 10. 生物科技：DNA、基因與重組 11. 微生物與植物生物科技 12. 動物生物科技 13. 醫學生物科技：不孕症、肥胖症、性功能障礙、AIDS… 14. 奈米科技：奈米材料及其應用	Syllabus	[Objectives]Students are introduced to the study of scientific and technological developments in human life. They should develop their understanding of construction, manufacturing, energy/transportation and information/communication as well as biotechnology and nanotechnology. Students should be able to comprehend physical, chemical and biological concepts and to understand the impacts brought by the science and technology on environment and human society. [Syllabus] 1. Technology and human society 2. Technology: construction, manufacturing, energy/transportation and information/communication 3. Technology chronology 4. Construction and manufacturing: materials, machines and industries 5. Energy and transportation: fire, water, wind, petroleum and petrochemical industries 6. Information and communication: data, information, management and communation 7. Pollution: soil, water and air 8. Diseases and population 9. Ecological impacts 10. biotechnology: DNA, genes and DNA recombination 11. Microorganisms, plants and biotechnology 12. Animals and biotechnology:

			transgenic animals and clones 13. Clinical medicine and biotechnology: sterility, obese genes, AIDS, … 14. Nano-material and its applications

尊重智慧財產權，請勿非法影印。