朝陽科技大學 099學年度第2學期教學大綱
Introduction of Biotechnology 生物技術概論

當期課號	1636	**Course Number**	1636
授課教師	賴龍山	**Instructor**	LAI,LONG SHAN
中文課名	生物技術概論	**Course Name**	Introduction of Biotechnology
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	Biotechnology一詞之一般譯名是生物技術，它又稱生物工學。繼資訊科技之後，爲人類健康圓夢的生物科技已蔚爲新世紀的主導型高科技。 隨著政府允諾每年百億新資金的大跨步投入和科技發展計畫的開放民間參與，未來幾年上千的生物科技工作機會已隱然成形。 整體來說，生物技術的基礎學科範圍極廣，涵蓋生物、化學與工程三大領域之綜合，互通有無；生物技術的應用方面所包括部份很廣，舉凡基於某些特定用途的前提下，以生物體整體或其部份進行合成、轉換等生化反應用以製造或改良產品，以開發或增進微生物、植物、動物的生產力，皆可曰生物技術。	**Objectives**	After information technology, biotechnology (also called bio-engineering) is widely recognized as one of the most-promising hi-technology as it can largely improve the quality of our life. In general, this technology covers many fields of science in laboratory such as chemistry, microbiology, biochemistry, and genetics. For potential applications in industry, it is also strongly related to bio-chemical engineeging. Above of all, the knowledge of biology can be viewed as the basic part for its development and applications in future. In short, biotechnology is defined to use the whole or parts of the cells thereof to produce chemicals and/or to supply services so as to improve the quality of human life.
教材	1.Textbook:生物技術的發展與應用,田蔚城主編(九州圖書). 2.Reference:Molecular Biotechnology, S. B. Primose (2nd edit.) by Blackwell Scientific Publications 3.上課講義	**Teaching Materials**	See the Chinese version.
成績評量方式	1.期中考,再加上兩次平常小考,小計三次考試(其中的每次考試滿分100分) 2.一次生物技術專題報告(二人一組,它分爲口頭報告與書面報告二部份,滿分各爲50分與80分,格式另定). 3.此外,上課點名以及參與討論爲BONUS,此部份加分另計.	**Grading**	The final course evaluation will be evaluated based on the performance of four examninations and one report: (1). Mid.term exam (2). Two tests (3). One special report (paper work + oral report) on biotechnology is required. Besides, bonus will be given basically based on the course attendance and class discussions.
教師網頁	lslai@mail.cyut.edu.tw		
教學內容	Biotechnology一詞之一般譯名是生物技術，它又稱生物工學。繼資訊科技之後，爲人類健康圓夢的生物科技已蔚爲新世紀的主導型高科技。 隨著政府允諾每年百億新資金的大跨步投入和科技發展計畫的開放民間參與，未來幾年上千的生物科技工作機會已隱然成形。 整體來說，生物技術的基礎學科範圍極廣，涵蓋生物、化學與工程三大領域之綜合，互通有無；生物技術的應用方面所包括部份很廣，舉凡基於某些特定用途的前提下，以生物體整體或其部份進行合成、轉換等生化反應用以製造或改良產品，以開發或增進微生物、植物、動物的生產力，皆可	**Syllabus**	After the coming of information technology, biotechnology (also called bio-engineering) is widely recognized as one of the most-promising hi-technology as it can largely improve the quality of our life. In general, this technology covers many fields of science in laboratory such as chemistry, microbiology, biochemistry, and genetics. For potential applications in industry, it is also strongly related to bio-chemical engineeging. Above of all, the knowledge of biology can be viewed as the basic part for its development and applications in future. In short, biotechnology is defined to use the

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