朝陽科技大學 098學年度第1學期教學大綱
Special Topics in Biotechnology 生物科技特論

當期課號	7674	Course Number	7674
授課教師	詹□松	Instructor	CHAN,HSIAO SUNG
中文課名	生物科技特論	Course Name	Special Topics in Biotechnology
開課單位	應用化學系碩士在職專班一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	生物技術是一個成長且影響我們深遠的工業，這個課程設計的目標，就是要讓學生瞭解到現階段生物技術的知識發展並且熟悉基本的分子與遺傳技術，延伸此項知識基礎所帶來龐大的發展與應用契機。課程前半部將包含應用DNA技術的基本知識，其次是使學生瞭解生物技術之尖端應用並且從專業期刊的研讀中追尋學習此一領域相關技術之能力。	Objectives	Biotechnology is a growing industry and the products of this industry impact us all. The primary objective of this course is to expose students to current knowledge of biotechnology, and for students to understand thoroughly the basic molecular and genetic techniques and approaches that form the base for the huge variety of further developments and applications that fall under the umbrella of Biotechnology. This foundation will be covered largely in the first half of the course, in which we will go thorough several techniques that are used in applied DNA technology in a variety of fields. Secondly, is for students to be able to understand and evaluate sophisticated and current applications of Biotechnology. The topics covered are necessarily subjectively chosen, as opposed to being comprehensive, but acquiring the ability to learn through professional journals will allow students to pursue their own specific interests subsequently.
教材	自編教材	Teaching Materials	
成績評量方式	測驗（50%）、平時成績（作業、出席與討論）（50%）	Grading	Quiz (50%)、class performance (attendance and participation) (50%)
教師網頁			
教學內容	1.生物技術原理介紹 2.DNA,RNA及轉錄基本技術 3.蛋白質及免疫技術 4.限制酶與基因選殖 5.聚合酶鏈反應 6.基因改良食品及植物基因轉殖 7.酵素活性與其分離純化技術 8.微生物培養與大量發酵程序 9.植物組織培養工程 10.基因轉殖動物之應用	Syllabus	1. Introduction of biotechnology 2. DNA,RNA and Transcription technique 3. Protein and immunotechnique 4. Restriction enzyme and cloning 5. Polymerase chain reaction 6. Genetic modified food and transgenic plant 7. Enzyme activity and purification technique 8.Fermentation process 9.Plant cell and tissue culture 10. Application of transgenic animal.