

朝陽科技大學 095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	7675	Course Number	7675
授課教師	劉炳嵐	Instructor	LIU,BING LAN
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	<p>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。</p>	Objectives	<p>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 through 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.</p>
教材	Richard J Reece(2004) Analysis of Genes and Genomes (偉明書局)	Teaching Materials	Analysis of Genes and Genomes (2004) by Richard J Reece.
成績評量方式	文獻研讀報告 30% 期末考 50% 課堂表現 20%	Grading	Article reading 30% Final exam 50% Lecture performance 20%
教師網頁	-		
教學內容	<ol style="list-style-type: none"> 1. 基礎基因分析技術 2. 載體 3. 聚合鏈酵素連鎖反應 4. 蛋白質生產與純化 5. 基因改造植物 6. 基因改造動物細胞 7. 基因改造動物 	Syllabus	<ol style="list-style-type: none"> 1. Basic technology in gene analysis 2. Vectors 3. Polymerase chain reaction (PCR) 4. Protein production and purification 5. Engineering plants 6. Engineering animal cells 7. Engineering animals

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