

朝陽科技大學 093學年度第2學期教學大綱
General Biology (II) 普通生物學(二)

當期課號	1470	Course Number	1470
授課教師	賴龍山	Instructor	LAI, LONG SHAN
中文課名	普通生物學(二)	Course Name	General Biology (II)
開課單位	應用化學系(四日)—A	Department	
修習別	必修	Required/Elective	Required
學分數	2	Credits	2
課程目標	<p>正統的生物學教育包括國小、國中、高中以及大學之教學，主要涵蓋兩大部份：傳統生物學與分析生物學；前者包括人類感官所認知的動物、植物等(例如動物會動、植物會開花)，它是一種認知的生物學，而後者則是利用已知的物理、化學原理來探求生命現象的表徵，它用到電子顯微鏡、電泳儀、超高速離心機等作為生物及其代謝物質的分析，主要依賴包括細胞學、生化學與遺傳學。近年來生命科學由於一些貴重儀器與技術的進步，才得以蓬勃發展，其中最令人興奮的莫過於與生物技術的進展(此技術整合與生物有關的各種知識)；您若對這些報導有興趣，就非得從基礎的生物學開始。基本上，本學期上課內容是銜接上學期普通生物學(一)的教學內容，其主旨是儘可能地提供給同學生物科技的基本知識與全貌。</p>	Objectives	<p>Biology is generally divided as traditional and analytical biology in the education of elementary schools to universities. The former part covers the principles of animals and plants through our observation and recognition, whereas the latter one describes the operational logics of life science through the development of microscopy, electrophoresis...etc. By the aid of cell biology, biochemistry and genetics the analysis of cell metabolism becomes possible and feasible. Meanwhile, the development in biotechnology, the practical application that integrates the knowledge of biology, astonishes us most. If you are interested in this field, then why not prepare yourself from the knowledge of General Biology? Overall, we will continue to introduce the basically important idea of Analytical Biology in this semester. In this way, we aim to give an overall view to biotechnology.</p>
教材	<p>1.Textbook: Essential Biology by Campbell, Reece and Simon (2nd edition) (滄海書局) 2.講義(需自行影印)</p>	Teaching Materials	
成績評量方式	<p>1.四次考試(含期中考與期末考,平均每次各占20%) 2.專題報告占20%(特優前十名為25%,成績分為5,10,15,20與25共五種,本報告含口頭與書面兩部份,期末考前一週的上課當天收齊,不接受日後補交) 3.課堂參與問題討論(以10%為限),亦列入學期總成績評量</p>	Grading	<p>20% will be given for each of the totally four examinations; meanwhile, special report also deserve 20% of the course evaluation (25% in the maximum). An oral report might be required, depending on the time limitations in the class. Meanwhile, a hard copy in typing, due on the last day of the class, is absolutely needed. Any form of late report will not be accepted. An additional bonus (10% in the maximum) will be considered based on the class attendance and problem discussion.</p>
教師網頁	lslai@mail.cyut.edu.tw		
教學內容	<p>正統的生物學教育包括國小、國中、高中以及大學之教學，主要涵蓋兩大部份：傳統生物學與分析生物學；前者包括人類感官所認知的動物、植物等(例如動物會動、植物會開花)，它是一種認知的生物學，而後者則是利用已知的物理、化學原理來探求生命現象的表徵，它用到電子顯微鏡、電泳儀、超高速離心機等作為生物及其代謝物質的分析，主要依賴包括細胞學、生化學與遺傳學。近年來生命科學由於一些貴重儀器與技術的進步，才得以蓬勃發展，其中最令人興奮的莫過於與生物技術的進展(此技術整</p>	Syllabus	<p>Biology is generally divided as traditional and analytical biology in the education of elementary schools to universities. The former part covers the principles of animals and plants through our observation and recognition, whereas the latter one describes the operational logics of life science through the development of microscopy, electrophoresis...etc. By the aid of cell biology, biochemistry and genetics the analysis of cell metabolism becomes possible and feasible. Meanwhile, the</p>

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基本上，本學期上課內容是銜接上學期普通生物學(一)的教學內容，其主旨是儘可能地提供給同學生物科技的基本知識與全貌。

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