# 朝陽科技大學 097學年度第2學期教學大綱
# Introduction of Biomaterials 生物材料導論

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| **當期課號** | 1750 | **Course Number** | 1750 |
| **授課教師** | 賴龍山 | **Instructor** | LAI,LONG SHAN |
| **中文課名** | 生物材料導論 | **Course Name** | Introduction of Biomaterials |
| **開課單位** | 應用化學系(四日)二A | **Department** | |
| **修習別** | 選修 | **Required/Elective** | Elective |
| **學分數** | 2 | **Credits** | 2 |
| **課程目標** | 本課程主要的目的是要向同學簡介各種來自生物所衍生材料之性質或原理與應用，例如膠原蛋白，幾丁質/幾丁聚醣，玻璃糖醛酸(或稱透明質酸)，生物可分解性塑膠，生物晶片等相關領域。此外，由微生物代謝所產生之工業用酵素，抗生素，紫杉醇也在本課程討論之列。 | **Objectives** | This course is designed to provide an iroduction of bionmaterials and their applications. We intend to give an overview of these products. The following items will be covered in class : 1.collagen 2 . chitin / chitosen 3. hyaluronic acid 4 . biochips 5 . biodegradable plastics Besides , the industrial enzymes , antibiotics , taxol derived from cell metabolism will also be discussed to our utmost . |
| **教材** | 期中考(含)前用書如下:<br>1.生物產業技術概論（吳文騰教授主編）全華科技圖書(股)公司(臺北市,02-25071300)<br>2.Class notes. | **Teaching Materials** | See the textbook, written in Chinese. |
| **成績評量方式** | 本課程由賴龍山老師(期中考前,含期中考)與另一位教授(期中考後)共同負責,大致上兩人各擔任課程一半之成績考核,詳細的上課方式擬任教者的在第一次上課宣佈),BONUS爲額外加分其依據是上課點名與參與課堂討論.<br><br>特別說明:期中考(含)前書面測驗兩次:即一次小考與期中考;而期中考後之測驗則由另一位老師決定. | **Grading** | The course grading is mainly based on the performance in the course before and after the mid-term examinatin (50% for each part). In other words, this course is practically devided as two parts, each of which will be taught by the assummed instructor. Details regarding the course grading and the progress of this course shall be announced in the first class of each instructor. Besides, additional bonus credits will be given to those attending the class and joining the discussions. |
| **教師網頁** | _ | | |
| **教學內容** | 本課程主要的目的是要向同學簡介各種來自生物所衍生材料之性質或原理與應用,例如膠原蛋白,幾丁質/幾丁聚醣,玻璃糖醛酸(或稱透明質酸),乳酸,乙醇,微生物農要,生物可分解性塑膠等相關領域.此外,由微生物代謝所產出之工業用酵素,生質能源(如H2),抗生素也在本課程討論之列. | **Syllabus** | This course is to provide a broad iroduction of bionmaterials, including the applications. The following items will be covered in class:<br><br>1.collagen<br>2.chitin/chitosen<br>3.hyaluronic acid<br>4.ethanol<br>5.microbial pesticide<br>6.biodegradable plastics<br><br>Besides, the industrial enzymes, renewable energies (such as biohydrogen production) and antibiotics will also be discussed in classes. |

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