



課 綱 Course Outline  
生化暨分子醫學科學系碩士班國際組

中文課程名稱 Course Name in Chinese	奈米藥物傳遞系統				
英文課程名稱 Course Name in English	Nanoparticles as drug delivery system				
科目代碼 Course Code	BMM_M0120	班 別 Degree	碩士班 Master' s		
修別 Type	選修 Elective	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					
課程目標 Course Objectives					
(1) Understand the latest nano formulations for drug delivery and the controlled release mechanisms of nanoparticle drugs.					
(2) Understand the advantages and disadvantages from the clinical drug delivery and the use of nanotechnology can improve the side effects of traditional drug delivery.					
系教育目標 Dept.' s Education Objectives					
1	培養從事生命科學及生物技術之專業人才。 Cultivating professionals engaged in biochemistry and molecular medicine.				
2	培育學生具有自我學習、獨立思考與創新之能力。 Fostering students to acquire the capabilities of self-learning, independent thinking, and innovation.				
系專業能力 Basic Learning Outcomes				課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.' s Education Objectives	
A	具備生物技術相關學科之基礎知識。 Having a fundamental understanding of subjects related to biotechnological techniques.			●	
B	具備邏輯分析與解決問題的能力。 Having the capabilities of logical analysis and problem solving.			●	
C	具備資料整合、數據分析與書面及口頭報告能力。 Having the capabilities of data integration and analysis, and the skills of written and poster presentation.			○	

D	具備終生學習的能力。 Having the capability of lifelong learning.	○
E	溝通協調能力與團隊合作之精神，及生物醫學工作人員專業倫理。 The spirit of communication, coordination, and teamwork, as well as professional ethics for biomedical workers.	
圖示說明Illustration：● 高度相關 Highly correlated ○ 中度相關 Moderately correlated		
課程大綱 Course Outline		
This course mainly enables students to learn new formulations of nanoparticle drugs for the applications in cancer diagnosis and therapy. During the course, we will learn the synthetic strategies of organic and inorganic nanoparticles, the characterization of nanomaterials, controlled-release mechanisms and the design of nano-drug targets.		
資源需求評估（師資專長之聘任、儀器設備的配合．．．等） Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)		
提供單槍投影機等教學用具		
課程要求和教學方式之建議 Course Requirements and Suggested Teaching Methods		
本課程除主題講解外，適時進行新發表期刊學術論文之分組討論。		
其他 Miscellaneous		