



課 綱 Course Outline  
生化暨分子醫學科學系博士班國際組

中文課程名稱 Course Name in Chinese	高等分子細胞生物學				
英文課程名稱 Course Name in English	Advanced Molecular Cell Biology				
科目代碼 Course Code	BMM_D0040	班 別 Degree	博士班 Ph. D.		
修別 Type	必修 Required	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					
課程目標 Course Objectives					
The course aims to guide students to understand cell biology, molecular cell biology, knowledge, scientific rationale, and methodology; in addition, students can learn the ability to gain comprehensive understanding of scientific issues related to cell biology.					
系教育目標 Dept.'s Education Objectives					
1	培養從事生化及生物醫學之高階專業人才。 Cultivating high-level 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	具備執行生物醫學專業研究及解決問題的能力。 Have the ability to conduct biomedical professional research and solve problems.			●	
B	建立吸收新知、終身學習及創新應用能力。 Establishing the ability to absorb new knowledge, engage in lifelong learning, and apply innovation.			●	
C	具備專業領域的研究素養，並具有國際視野之科學涵養。 Having expertise in the professional field of study and possessing a scientific cultivation with an international perspective.				

D	具備計畫書與論文撰寫之能力。 Possessing the ability to write project proposals and papers.	○
E	具備培養年輕生物醫學工作人員之能力。 Have the ability to cultivate young 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		
1.The work and molecules of cells 2.Biomembrane and membrane transport 3.Membrane trafficking 4.Cytoskeleton and microtubules 5.Biosignaling in cells 6.Cell cycle and cell growth control 7.In vivo cell biology and development 8.Integrating cells into tissues		
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.)		
Computer-aided projector		
課程要求和教學方式之建議 Course Requirements and Suggested Teaching Methods		
其他 Miscellaneous		