

國立東華大學
教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	分子生物科技			學年/學期 Academic Year/Semester	115/1
課程名稱(英文) Course Name in English	Molecular Biotechnology				
科目代碼 Course Code	BMM_M0050	系級 Department & Year	碩士	開課單位 Course-Offering Department	生化暨分子醫學科學系
修別 Type	必修 Required	學分數/時間 Credit(s)/Hour(s)		3.0/3.0	
授課教師 Instructor	/李佳洪/謝函芸/林哲緯				
先修課程 Prerequisite					
課程描述 Course Description					
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.					
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.				●
圖示說明Illustration：● 高度相關 Highly correlated ○ 中度相關 Moderately correlated					
授課進度表 Teaching Schedule & Content					
週次Week	內容 Subject/Topics				備註Remarks
1	Nanosystem characterization tools in the life sciences				
2	Cellular drug delivery				
3	Nanomaterials for cancer diagnosis and targeted cancer therapy				
4	Fluorescence and bioluminescence in vivo imaging system				
5	First Presentation				
6	基因編輯：Epigenome Editing與Off-target評估策略				
7	細胞治療：細胞治療工程與微環境調控				

8	生物晶片與微流體體外模型建立	
9	期中考試週 Midterm Exam	
10	生物技術期刊文獻導讀	
11	研究計畫提案	
12		
13		
14		
15		
16		
17	期末考試週 Final Exam	

彈性 教學 規劃 Flexible Teaching Plan	請勾選(至少需勾選1 個項目): Please tick the box(es). (At least one item is required.): ☐ 問題討論 Problem-based Discussion ☐ 翻轉教學 Flipped Classroom ☐ 展演實作 Performance / Practical Presentation ☐ 校外參訪 Off-campus Visit ☐ 講座活動 Lecture / Seminar ☐ 線上作業 Online Assignments ☐ 自主學習 Self-directed Learning ☐ 課業輔導 Academic Support ☐ 實驗操作 Experiment Operation ☐ 遠距教學(同步) Distance Learning (Synchronous) ☐ 遠距教學(非同步) Distance Learning (Asynchronous) ☐ 其他(請填寫) Others (Please specify.): 備註: 本校學期週數自115 學年度起調整為17 週, 為符合1學分18 小時之原則, 請教師規劃安排彈性教學。 Note: From the 115th academic year, the semester will be 17 weeks. Please include flexible teaching activities to meet the required 18 hours per credit.
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教學策略 Teaching Strategies

- ☐ 課堂講授 Lecture ☐ 分組討論 Group Discussion ☐ 參觀實習 Field Trip
- ☐ 其他 Miscellaneous:

教學創新自評 Teaching Self-Evaluation

創新教學 (Innovative Teaching)

- ☐ 問題導向學習 (PBL) ☐ 團體合作學習 (TBL) ☐ 解決導向學習 (SBL)
- ☐ 翻轉教室 Flipped Classroom ☐ 磨課師 Moocs

社會責任 (Social Responsibility)

- ☐ 在地實踐 Community Practice ☐ 產學合作 Industry-Academia Cooperation

跨域合作 (Transdisciplinary Projects)

- ☐ 跨界教學 Transdisciplinary Teaching ☐ 跨院系教學 Inter-collegiate Teaching
- ☐ 業師合授 Courses Co-taught with Industry Practitioners

其它 other:

學期成績計算及多元評量方式 Grading & Assessments									
配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績(含出缺席) General Performance (Attendance Record)									
期中考成績 Midterm Exam									
期末考成績 Final Exam									
作業成績 Homework and/or Assignments									
其他 Miscellaneous (_____)									
評量方式補充說明 Grading & Assessments Supplemental instructions									
教科書與參考書目(書名、作者、書局、代理商、說明) Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)									
課程教材網址(含線上教學資訊,教師個人網址請列位於本校內之網址) Teaching Aids & Teacher's Website(Including online teaching information. Personal website can be listed here.)									
其他補充說明 (Supplemental instructions)									