



教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	微生物學		學年/學期 Academic Year/Semester	113/1	
課程名稱(英文) Course Name in English	Microbiology				
科目代碼 Course Code	BMM_30500	系級 Department & Year	學三	開課單位 Course-Offering Department	生化暨分子醫學科學系
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)	3.0/3.0		
授課教師 Instructor	/黃靖惠				
先修課程 Prerequisite					
課程描述 Course Description					
(1) 瞭解微生物世界的多樣化及其分類、生長、代謝與遺傳特性等。 (2) 瞭微生物與疫病，環境的關係，及有益微生物在工業上的應用等					
課程目標 Course Objectives					
(1) 瞭解微生物世界的多樣化及其分類、生長、代謝與遺傳特性等。 (2) 瞭微生物與疫病，環境的關係，及有益微生物在工業上的應用等					
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	具備生命科學相關學科之基礎知識。Having the basic knowledge of life science.			●	
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之能力。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	Course introduction				
2	The main themes of microbiology				Ch 1
3	general microbiology				
4	Tools of the laboratory: methods of studying microorganisms				Ch 3
5	國慶日				
6	A survey of Prokaryotic Cells and Microorganisms				Ch 4
7	A survey of Eukaryotic Cells and Microorganisms				Ch 5

8	Viruses, Viroids, and Prions	Ch 6
9	期中考試週 Midterm Exam	
10	Microbial Nutrition, Ecology and Growth	Ch 7
11	An Introduction to Microbial Genetics	Ch9
12	Genetic Engineering: A Revolution in Molecular Biology	Ch 10
13	Genetic Engineering: A Revolution in Molecular Biology	Ch 10
14	Microbe Human Interactions	Ch 13
15	Microbe Human Interactions	Ch 13
16	oral presentation	
17	oral presentation	
18	期末考試週 Final Exam	

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 General Performance									
期中考成績 Midterm Exam	25%	✓							
期末考成績 Final Exam	30%	✓							
作業成績 Homework and/or Assignments									
其他 Miscellaneous (小組報告)	25%			✓					
評量方式補充說明 Grading & Assessments Supplemental instructions									
出席率 20%									
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)									