



課 綱 Course Outline

生化暨分子醫學科學系學士班

中文課程名稱 Course Name in Chinese	神經退化疾病概論				
英文課程名稱 Course Name in English	Introduction to Neurodegenerative Disorders				
科目代碼 Course Code	BMM_33520	班 別 Degree	學士班 Bachelor' s		
修別 Type	學程 Program	學分數 Credit(s)	2.0	時 數 Hour(s)	2.0
先修課程 Prerequisite					
課程目標 Course Objectives					
1. 認識神經退化病理生理機轉 2. 認識神經退化疾病臨床特徵 3. 認識神經退化疾病生物標記 4. 認識神經退化疾病的治療趨勢 5. 認識當前失智症醫療的挑戰 學生修習本課程後，能辨識常見的失智症與動作障礙，連結生化與分子生物學基礎，解釋背後的病理生理機轉。並且了解神經退化疾病如何在醫病現場從病史徵候、身體檢查、認知評估、生物標記、腦影像處理、診斷建立、治療協商、到回歸社區與家庭照顧的困境，藉此思考將來如何結合所長、解決問題。					
系教育目標 Dept.' s Education Objectives					
1	培養生化及生物醫學相關領域之人才。 Cultivating talents 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		
課程大綱 Course Outline		
1. Overview of aging and dementia 2. Pathogenesis of neurodegeneration 3. Imaging markers of neurodegeneration 4. Neuropsychological assessment 5. Alzheimer disease and amyloidopathy 6. Lewy body disease and alpha-synucleinopathy 7. Fronto-temporal dementia and tauopathy 8. TDP-43 and LATE 9. 期中考 10. Huntington disease, spinocerebellar ataxia, amyotrophic lateral sclerosis 11. Vascular cognitive impairment 12. Prion disease and rapidly progressive dementia 13. Secondary causes of cognitive decline 14. Neuropsychiatric aspect of dementia 15. Pharmacological and non-pharmacological intervention 16. Current challenges of dementia care 17. Review of neurodegeneration 18. 期末考		
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.)		
無		
課程要求和教學方式之建議 Course Requirements and Suggested Teaching Methods		
Reference book: Neurodegenerative Disorders: A Clinical Guide by Orla Hardiman et al. 2nd edition. 2016 課堂講授配合使用數位教學平台(Moodle)或其他多媒體教學		
其他 Miscellaneous		
無		