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## ②图玄束華大學

# 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	神經退化疾病概	Eè		學年/學期 Academic Year/Se	113/2		
課程名稱(英文) Course Name in English	Introduction to Neurodegenerative Disorders						
科目代碼 Course Code	BMM_33520	系級 Department 學三 ( & Year		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 Credit(s)/Hou		2.0/2.0			
授課教師 Instructor	/羅彥宇/林哲緯						
先修課程 Prerequisite							

### 課程描述 Course Description

This course is intended to introduce the fundamental knowledge of neurodegenerative disorders to undergraduates who have had basics in molecular and cell biology. Students will be exposed to clinical aspects of diseases such as Alzheimer's disease and Parkinson's disease. Textbook reading is required for the MCQ exam to ensure the fundamentals are sufficient. In addition, students will be doing journal reading and patient interview and then do oral presentations in class. We will invite a couple of experts in the field to talk about up-to-date research topics.

#### 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.	•				
В	具備邏輯分析與解決問題的能力。Having the capabilities of logical analysis and problem solving.	•				
С	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	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
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1	2/21 Ground rule and introduction to the course of neurodegenerative disorders  1. Paper reading/ Patient interview/ Exam/ Attendance rate. 25% each  2. 4 Journal reading by 4 groups (4-5 students in each)  3. 4 Patient interview by 4 groups (4-5 students in each)  4. 8-9 Lectures following the textbook chapters
2	2/28 Holiday
3	3/7-1: Overview of aging, dementia, and neurodegenerative disorders (Dr. Lo) 3/7-2: Ch.1: Common themes in the pathogenesis of neurodegeneration (Dr. Lo)
4	3/14-1: Ch. 4: Alzheimer's disease (Dr. Lo) 3/14-2: Journal reading-1
5	3/21-1: Ch. 5: Dementia and cerebrovascular disease (Dr. Lo) 3/21-2: Journal reading-2
6	3/28-1: 3/28-2: Journal reading-3
7	4/4 Holiday
8	4/11-1:Journal reading-4 4/11-2: 高聖倫醫師演講
9	期中考試週 Midterm Exam Patient visit, interview, and presentation preparation
10	4/25 Ch. 6: Parkinson's disease (Dr. Lo) Ch. 7: Fronto-temporal dementia (Dr. Lo)
11	5/2-1: Ch. 8: Amyotrophic lateral sclerosis (Dr. Lo)5/2-2: Case presentation-15/2-3: 醫學研究常見研究設計與統計方法介紹 (Dr. 王仁宏)
12	5/9-1: Ch. 9: Huntington disease (Dr. Lo) 5/9-2: Case presentation-2
13	5/16-1:Lecture: Lewy body disease visual hallucination and transcranial ultrasound stimulation by Ms Emma Luo 5/16-2: Case presentation-3
14	5/23-1: Ch. 11: Prion disease (Dr. Lo) 5/23-2: Case presentation-4
15	5/30 Holiday
16	6/6 Overview recap Review/ QA/ Feedback
17	6/13 Week of read, review, and recite Exam 40 Multiple Choice Question: 2.5 point/ per q =100
18	期末考試週 Final Exam- waived

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: 2. visit patients and interview them personally, then do presentations with specific aims
教學創新自評Teaching Self-Evaluation
創新教學(Innovative Teaching)
問題導向學習(PBL) ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
翻轉教室 Flipped Classroom     磨課師 Moocs
社會責任(Social Responsibility)
✓ 在地實踐Community Practice
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:  1. Field trip to interview patients and collect information 2. A couple of clinical researchers talks

學期成績計算及多元評量方式 Grading & Assessments									
配分項目	配分比例 Percentage	多元評量方式 Assessments							
Items		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)	25%								Class participation
期中考成績 Midterm Exam	25%			>					Journal reading
期末考成績 Final Exam	25%	~							40 MCQs
作業成績 Homework and/or Assignments	25%		<b>~</b>						Patient interview
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.)

1. Neurodegenerative Disorders: A Clinical Guide by Orla Hardiman et al. 2nd edition. 2016

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)