



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	轉譯醫學導論				
英文課程名稱 Course Name in English	Introduction to translational medicine research				
科目代碼 Course Code	BMM_41460	班 別 Degree	學士班 Bachelor' s		
修別 Type	學程 Program	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					
課程目標 Course Objectives					
本課程的目的是讓學生了解分子水平上的變化如何影響與人體有關的單個細胞和/或器官的基本功能之間的聯繫；特別關注從健康組織到患病組織的變化以及症狀，不同疾病的診斷和治療之間的聯繫。					
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

Part I. Translational Science

1. Overview of the basic definitions and key concepts related to clinical and translational science

Part II. Translation to Humans-T1 research:

2. Observational studies (W2)

3. Case studies

4. Proof-of-concept studies

5. Phase I clinical trials, and phase II clinical trials

Part III. Translation to Patients-T2 research:

6. Translation of findings from T1 research to patients.

7. Phase III clinical trials, observational studies.

8. Evidence synthesis, and clinical guidelines development.

9. Group discussion (I)

Part IV: Translation to Practice -T3 research

10. Translation of findings from T2 research (patients) to actual clinical practices

11. Phase IV clinical trials

12. Health services research, and clinical outcomes research.

Part V: Translation to Communities and Participating in Clinical and Translational Research -T4 research

13. Translations of findings from practices (T3 research) to communities, both domestic and globally.

14. Prevention and outcome studies, mass screening studies, and health policy studies.

15. An overview of how interested individuals can participate in clinical and translational research; as an independent research, as a clinical research professional, and as a study volunteer.

16. The final segment of the module demonstrates what a typical study volunteer will encounter if they are selected to participate in a clinical trial.

17. Group Discussion II

18. Group Discussion (III)

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.)

部分課程邀請慈濟醫學中心血腫科黃威翰，泌尿科張嘉峰，小兒腎臟科陳明群，一般外科張明群醫師協助。

課程要求和教學方式之建議

Course Requirements and Suggested Teaching Methods

由線上資源收集資料整理和文獻，以簡報方式呈現，於每個主題會進行分組討論。

其他

Miscellaneous