

醫學檢驗品質管理國立陽明交通大學 醫學生物技術暨檢驗學系 必選修  
科目表

(113 學年度入學新生適用)

List of Courses for Department of Biotechnology and Laboratory Science in Medicine  
in NYCU

(Applicable to Newly-Admitted Students from Academic Year 2024)

一、系訂必修課程 Required courses

課程名稱 Course Name	學分 Credit	一年級 Grade 1		二年級 Grade 2		三年級 Grade 3		四年級 Grade 4		備註
		上 1st	下 2nd	上 1st	下 2nd	上 1st	下 2nd	上 1st	下 2nd	
普通生物學 General Biology	3	3								EMI 授課
普通生物學實驗 Laboratory Studies of Biology	1	1								
化學實驗(一) Experiments for Chemical Principle	1	1								
化學原理 Principles of Chemistry	2	2								
程式設計 Programming	2	2								遠距
分析化學 Analytical Chemistry	2		2							
組織學 Histology	2		2							
組織學實驗 Histology Laboratory	1		1							
有機化學 Organic Chemistry	3		3							
有機化學實驗 Laboratory in Organic Chemistry	1		1							
資料科學基礎 Fundamentals of Data Science	2		2							
解剖學 Anatomy	3			3						
寄生蟲學 Parasitology	2			2						
寄生蟲學實驗 Parasitology Lab.	1			1						
生物化學 Biochemistry	4			4						
生物化學實驗 Biochemistry Lab.	1			1						
臨床鏡檢學 Introduction to Clinical Microscopy	1				1					
臨床鏡檢學實驗 Introduction to Clinical Microscopy Lab.	1				1					
生理學 Physiology	4				4					
生理學實驗 Physiology Lab.	1				1					
分子生物學 Molecular Biology	2				2					
細胞生物學 Cell Biology	1				1					
微生物學及免疫學 Microbiology & Immunology	4					4				
微生物學及免疫學實驗 Lab Practice in Microbiology &	1					1				

Immunology									
病理學 Pathology	2				2				
血液學及臨床血液學 Hematology and Clinical Hematology	3				3				
血液學及血庫學實驗 Hematology and Blood Banking Lab.	2				2				EMI 授課
血庫學 Blood Banking	1				1				
臨床微生物實驗 Clinical Microbiology Laboratory	1					1			EMI 授課
臨床生化學 Clinical Biochemistry	2					2			
臨床生化學實驗 Clinical Biochemistry Lab.	1					1			EMI 授課
臨床細菌學 Clinical Bacteriology	2					2			
臨床病毒學 Clinical Virology	1					1			
臨床血清免疫學 Clinical Serology & Immunology	2					2			
臨床生理學 Clinical Physiology	2					2			
細胞診斷學 Diagnostic Cytology	1					1			
醫學檢驗品質管理 Medical Laboratory Quality Mnagement	1					1			
臨床微生物學實習 Clinical Microbiology Lab Internship	3						3		
臨床生化學實習 Clinical Biochemistry Practice Lab Internship	3						3		
臨床生理學實習 Clinical Physiology Practice Lab Internship	1						1		
臨床鏡檢及寄生蟲學實習 Clinical Microscopy & Parasitology Lab Internship	3						3		
臨床病毒學實習 Clinical Virology Lab Internship	2						2		
臨床血庫實習 Clinical Blood Banking Lab Internship	1						1		
臨床血清免疫實習 Clinical Serology Lab Internship	1						1		
臨床血液學實習 Clinical Hematology Lab Internship	1						1		
醫學分子檢驗實習 Molecular Diagnosis in Medicine Lab Internship	2						2		
病理切片及細胞診斷實習 Pathological Technology & Diagnosis Cytology Practice	1						1		
專題討論 Research Seminar	1							1	EMI 授課
醫學分子檢驗 Molecular	2							2	

Diagnosis in Medicine									
醫學檢驗及生技相關法規 Medical Tsting and Biotechnology Regulations	1								1
小計	89	9	11	11	10	13	13	18	4

## 二、系選修課程 Elective courses

課程名稱 Course Name	學分 Credit	一年級 Grade 1		二年級 Grade 2		三年級 Grade 3		四年級 Grade 4		備註
		上 1st	下 2nd	上 1st	下 2nd	上 1st	下 2nd	上 1st	下 2nd	
生技與醫檢(一)Biotechnology and Laboratory Sciences(I)	2	2								EMI 授課
微積分 Calculus	2	2								
普通物理學 General Physics	3	3								
普通物理學實驗 General Physics Lab.	1	1								
微積分(二) Calculus (II)	2		2							
統計學 Statistics	2		2							
解剖學實驗 Anatomy Lab.	1			1						
生物醫學研究導論 Introduction to Research in Biomedical Sciences	1			1						EMI 授課
專題討論 Research Seminar	1			1						EMI 授課
公共衛生學概論 Public Health	2			2						
統計學 Statistics	2				2					
生物資訊學 Bioinformatics	3					3				
環境衛生學 Environmental Health	2					2				
環境毒理學 Environmental Toxicology	2					2				
藥理學概論 Introduction of Pharmacology	1						1			
流行病學 Epidemiology	1						1			
毒物化學 Toxicology	2						2			
實驗室自動化實習 Total Lab Automation Internship	1							1		
心臟超音波檢查室實習 Echocardiography practice	1							1		
電子顯微鏡應用實習 Applications of Electron Microscopy	1							1		
小兒遺傳學檢驗實習 Pediatric Genetics analysis	1							1		
骨髓染色體分析實習 Bone marrow chromosome analysis	1							1		
毒物化學實習 Clinical toxicology chemistry	1							1		
細胞學實習 Cytology practice	1							1		

藥理學 Pharmacology	3								3	
藥理學概論 Introduction of Pharmacology	1								1	
流行病學 Epidemiology	1								1	
毒物化學 Toxicology	2								2	
寡核酸之應用 The Applications of Oligonucleotide	1								1	
人工輔助生殖技術講座 Assisted Reproductive Technology (ART)	2								2	
醫學昆蟲與病媒防制 Medical Insect and Vector Control	2								2	
統計學 Statistics	2								2	
專題研究 Capstone Project	1								1	
精準醫學導論 Introduction to Precision Medicine									1	
生物技術於醫學之應用 Biotechnology in Medicine									2	
再生醫學導論 Regenerative Medicine									2	

#### 說明：

一、本學系最低畢業學分為 136 學分，包含：

The minimum number of credits required for graduation from this department is 136 credits, including:

(一) 校共同課程至少 24 學分

At least 24 credits in University Common Courses

1. 核心課程：根據本校核心課程修習辦法辦理，至少修畢 18 學分，其中基本素養課程至少 6 學分，領域課程至少 8 學分。

Core Courses: according to the university's core curriculum regulations, at least 18 credits must be completed, including at least 6 credits in fundamental literacy courses and at least 8 credits in domain courses.

2. 語言與溝通課程：根據本校語言與溝通課程修習辦法辦理，至少修畢 6 學分，其中英文課程至少 4 學分。

Language and Communication Courses: according to the university's language and communication curriculum regulations, at least 6 credits must be completed, including at least 4 credits in English courses.

3. 其他必修：

Other required courses:

(1) 體育課程 0 學分，6 學期，依本校體育課程實施辦法辦理。

Physical Education Courses: 0 credits, 6 semesters, in accordance with the university's physical education course implementation regulations

(2) 服務學習課程：依本校服務學習課程實施辦法辦理，需修畢通過二門「基礎服務學習課程」或一門「專業服務學習課程」。

Service Learning Courses: in accordance with the university's service learning course implementation regulations, students must complete and pass either two "Basic Service Learning Courses" or one "Professional Service Learning Course."

(3) 學生學術及研究倫理教育課程：依本校學生學術研究倫理教育課程實施要點辦理。

Student Academic and Research Ethics Education Courses: in accordance with the university's student academic and research ethics education course implementation guidelines

(4) 性別平等教育線上課程：依本校性別平等教育線上課程實施要點辦理。

Online Gender Equality Education Courses: in accordance with the university's online gender equality education course implementation guidelines

(5) 導師時間 4 學期共 4 學分：依本校導師制度實施辦法辦理。

Mentor Time: in accordance with the university's mentor system implementation regulations

(二) 系訂必修課程 89 學分；系選修課程 19 學分；自由彈性選修 0 學分。

Department-required courses: 90credits; department elective courses:18credits; free elective courses: 0 credits

二、 選修課程以當學期開課資料為準。

Elective courses are based on the course offered for the current semester.