

長庚大學 醫學影像暨放射科學系博士班 必選修科目表 (112 學年度入學學生適用)  
Chang Gung University, Medical Imaging and Radiological Sciences  
Curriculum for PHD Program (2023 ~2024) 2023.04.13 revised

必/選修 Required/ Elective	科目名稱 Course Title	學分 Credit	開課年級 year	上學期 Fall	下學期 Spring	備註 Note
必修 Required Courses	書報討論一 Seminar (1)	1	1	1		
	書報討論二 Seminar (2)	1	1		1	
	書報討論三 Seminar (3)	1	2	1		
	書報討論四 Seminar (4)	1	2		1	
	放射與核物理 Radiation and Nuclear Physics	3	1	3		
	影像解剖及生理學 Radiological Anatomy and Physiology	3	1		3	
	生物統計學 Biostatistics	3	1		3	
	科學倫理與論文寫作 Scientific Ethics and Writing	2	2		2	曾以第一作者身分發表 SCI 論文者，視為通過該 課程。 It is deemed “pass” should the student publish an SCI article with first authorship.
選修 Elective Courses	診斷影像物理實驗 Physics Measurements in Diagnostic Imaging Lab	2	1		2	偶數學年度開課 Offered bi-annually
	放射治療物理實驗 Lab-Radiotherapy Physics	1	1		1	奇數學年度開課 Offered bi-annually
	磁共振造影 Magnetic Resonance Imaging: Basic Principles and Applications	3	1	3		
	醫學輻射劑量學 Medical Radiation Dosimetry	3	1		3	
	醫學保健物理 Medical Health Physics	3	1	3		
	放射治療物理 Physics of Radiotherapy	3	1	3		
	輻射生物學 Radiobiology	3	1		3	
	放射診斷物理 Diagnostic Imaging Physics	3	1		3	偶數學年度開課 Offered bi-annually
	核子醫學物理暨藥物學 Physics and Pharmaceuticals in Nuclear Medicine	3	1		3	偶數學年度開課 Offered bi-annually
	醫學影像處理 Medical Imaging Processing	3	1	3		偶數學年度開課 Offered bi-annually
	功能性磁共振造影 Functional MRI	2	1	2		
	醫學影像處理特論 Special Topics in Medical Image Processing	3	1	3		奇數學年度開課 Offered bi-annually
	超音波影像特論 Special Topics in Ultrasound Imaging	3	1		3	
	正子製藥方法與相關法規 PET drug preparation and its related regulation	3	1		3	
	臨床醫學物理實習(影像物理) Clinical Practicum of Medical Physics-Diagnostic Imaging	4	2	4		暑假上課 Summer school
	臨床醫學物理實習(治療物理) Clinical Practicum of Medical Physics-Radiation Therapy	4	2	4		暑假上課 Summer school
	進階放射治療物理 Advanced Radiotherapy Physics	3	2		3	偶數學年度開課 Offered bi-annually
	分子影像學 Molecular Imaging	3	2	3		奇數學年度開課 Offered bi-annually
	粒子放射治療 Particle Radiotherapy	3	2		3	奇數學年度開課 Offered bi-annually

放射藥物開發及藥理神經學應用 Radiotracer Development for Pharmacology and Neurology Studies	3	2	3		
輻射度量 Radiation Detection and Measurement	3	1	3		偶數學年度開課 Offered bi-annually
醫學影像系統 Biomedical Imaging System	3	2	3		

屆別: 第九屆

**Class of 2020**

1. 畢業學分：33 學分。

**Core total: 33Credits**

(1) 必修 15 學分。

**Required Courses : 15Credits**

(2) 選修 12 學分。

**Elective Courses:12 Credits。**

(3) 論文 6 學分(通過學位考試並繳交通過審核論文後給予)。

**Master Thesis with 6 credits will be awarded after degree examination.**

2. 須達英文畢業門檻方可畢業。

**Students must meet the basic English Proficiency requirement to be eligible to graduate.**

3. 每學期限修一門書報討論。

**No more than one seminar course can be taken in a semester.**

4. 其他(Others):

A. 醫學院各所開設之「生物統計學」及「高等生物統計學」可擇一選修，至多承認 3 學分。

**Biostatistics or Advanced Biostatistics offered by all departments in medical school will be acknowledged at most 3 credits.**

B. 博士生選修外所課程，經指導教授同意後均可承認學分。

**Courses in other departments with supervisor's agreement will be acknowledged.**

C. 逕升博士班之學生，畢業時需修滿最少 30 學分(不含論文 6 學分)。

**PhD students admitted following direct admission track should complete course work of minimum 30 credit hours. Additional 6 credit hours are necessary for the dissertation.**

所長：

課程召集人：

經辦：