慈濟科技大學112學年度四年制醫學影像暨放射科學系開課科目及學分時數表
Tzu Chi University of Science and Technology
Bachelor's Degree Program in Medical Imaging and Radiological Sciences (MIRS), 132 credits, Fall 2023

Category 科目類別	Course Title in Chinese 課程中文名稱	Course Title in English 課程英文名稱	Credits 學分	Hours 時數	Year 1 1st Semester	Year 1 2nd Semester	Year 2 1st Semester	Year 2 2nd Semester	Year 3 1st Semester	Year 3 2nd Semester	Year 4 1st Semester	Year 4 2nd Semester	Note
Basic General Courses (Required) 基礎通識 (必修)	國文	Chinese	4	4	2	2							12 credit(s) 12 學分
	英文	English	4	8	1	1	1	1					
	邏輯與運算思維	Logic and Computational Thinking	2	2		2							
	慈濟人文	Tzu-Chi Philosophy	2	2		2							
	勞作教育(一)	Labor Education I	0	2	0								
	勞作教育(二)	Labor Education II	0	2		0							
	體育	Physical Education	0	8	0	0	0	0					
	小計	**Total Credits**	**12**	**28**	**3**	**7**	**1**	**1**					
Core General Courses (Required) 核心通識 (必修)	**人文與藝術向度(Humanities and Arts)**												
	語文應用與表達	The Expression & Application of Chinese Language & Literature	2	2	2								Choose 1 of 3 三選一
	生命教育	Life Education	2	2	2								
	音樂欣賞	Music Appreciation	2	2	2								
	公民素養向度(Civic Literacy)												
	憲法與人權	Constitution and Human Rights	2	2	2								Choose 1 of 3 三選一
	法學緒論	Introduction to the Study of Law	2	2	2								
	社會與文化	Sociology and Culture	2	2	2								
	歷史與文化向度 (History and Culture)												
	中西藝術史導論	History of Art	2	2		2							Choose 1 of 2 二選一
	歷史小說與史學名著選讀	Select Readings of History Novels and Literatures	2	2		2							
	科技與智慧生活向度 (Technology and Wisdom)												
	Python與資料科學入門	Introduction to Python and Data Science	2	2		2							choose 1 of 2 二選一
	現代生活科技	Modern Science and Technology	2	2		2							
	小計	**Total Credits**	**8**	**8**	**4**	**4**							
		The Holistic Education Center offers 1-3 courses in each academic discipline every semester. Students may choose a course from any 2 disciplines (2 courses in total) each semester. Students are required to take 4 courses worth 8 credits in total across the academic year (two semesters). 核心通識每學期每向度開設 1~3 門課程，學生每學期擇2向度各選修1門課，預計2學期選修4門課，共計8學分。											
Professional Basic Courses (Required) 專業基礎 (必修)	普通物理學	General Physics	2	2	2								36 credits required (36學分)
	普通物理學實驗	General Physics Laboratory	1	2	1								
	普通化學	General Chemistry	2	2	2								
	普通化學實驗	General Chemistry Laboratory	1	2	1								
	普通生物	General Biology	2	2		2							
	普通生物實驗	General Biology Laboratory	1	2		1							
	微積分(一)	Calculus I	2	2	2								
	微積分(二)	Calculus II	2	2		2							
	應用數學	Applied Mathematics	2	2			2						
	醫學影像程式概論	Medical Imaging Processing: An Overview	2	2			2						
	醫用電子電路學	Medical Electronics and Circuits	2	2		2							
	放射物理學(一)	Physics of Radiology I	2	2		2							
	放射物理學(二)	Physics of Radiology II	2	2			2						
	放射化學	Radiochemistry	2	2				2					
	放射生物學	Radiobiology	2	2			2						
	解剖學	Anatomy	4	4			4						
	生理學	Physiology	3	3				3					
	病理學	Pathology	2	2					2				
	小計	**Total Credits**	**36**	**39**	**8**	**9**	**12**	**5**	**2**				
Professional Core Courses for MIRS (Required) 專業核心 (必修)	放射診斷器材學	Instrumentation for Diagnostic Radiography	3	3			3						53 credits required (53學分)
	放射切面解剖學	Sectional Anatomy	1	1				1					
	放射治療物理學	Physics of Radiation Therapy	2	2				2					
	放射診斷技術學(一)	Radiological Technology I	2	2				2					
	輻射安全學	Radiation Safety	2	2				2					
	核子醫學藥物學	Radiopharmaceuticals	2	2					2				
	核子醫學器材學	Instrumentation for Nuclear Medicine	2	2					2				
	超音波學	Medical Ultrasound	2	2					2				
	磁振造影學	Magnetic Resonance Imaging	2	2					2				
	放射診斷技術學(二)	Radiological Technology II	2	2					2				
	電腦斷層影像學	Computed tomography images	2	2					2				
	醫學影像診斷學	Clinical Medical Images	2	2						2			
	醫學影像品質管制	Image Evaluation and Quality Management	2	2						2			
	醫學影像處理	Medical image processing	2	2						2			
	醫學影像儲傳系統	Picture Archiving and Communication System	1	1						1			
	特殊攝影技術學	Special Radiographic Technology	2	2						2			
	放射治療技術學	Radiation Therapy Technology	3	3						3			
	放射治療器材學	Instrumentation for Radiation Therapy	2	2						2			
	核子醫學技術學	Nuclear Medicine Technology	3	3						3			
	放射治療品質管制	Quality Management in Radiation Therapy	1	1						1			
	放射診斷技術實習	Clinical Practice in Radiography	6	20							6		
	放射治療技術實習	Clinical Practice in Nuclear Medicine	3	10							3		
	核子醫學技術實習	Clinical Practice in Radiation Therapy	3	10							3		
	書報討論	Seminar	1	2								1	
	小計	**Total Credits**	**53**	**82**			**3**	**7**	**12**	**18**	**12**	**1**	
Professional Elective Courses for MIRS 專業選修	放射醫學概論	Introduction to Radiology	2	2	2								15 credits required (15學分)
	醫放專業術語	English for Radiological Technology	2	2	2								
	抗輻射蔬果美妝保養創新應用	Innovative application of anti-radiation vegetable and fruit beauty care	2	2	2								
	解剖學實驗	Anatomy Laboratory	1	2			1						
	放射師之醫學倫理	Understanding the importance of medical ethics	2	2			2						
	放射醫學服務學習		2	2			2						
	生理學實驗	Physiology Experiment	1	2				1					
	放射診斷技術學實驗(一)	Radiological Technology Practice I	1	3				1					
	輻射安全學實驗	Radiation Safety Laboratory	1	2				1					
	電腦斷層與牙科放射技術學	Computed Tomography and Dental radiography	2	2				2					
	磁振造影之臨床應用與研究	Advanced MRI : Clinical Application and Research	2	2					2				
	放射診斷技術學實驗(二)	Radiological Technology Practice II	1	3					1				
	超音波學實驗	Ultrasonography Practice	1	2						1			
	治療計畫模擬	Simulation of Treatment Planning System	2	2						2			
	進階放射診斷物理暨器材學	Advanced physics and instruments for diagnostic radiography	2	2							2		
	進階核子醫學影像物理暨器材學	Advanced Nuclear Medicine Imaging Physics and Instrumentation	2	2							2		
	進階放射治療物理暨器材學	Advanced Radiotherapy Physics and Instrumentation	2	2							2		
	整合醫學與臨床應用	Integrative medicine and clinical application	2	2							2		
	放射醫學實務	Radiological Medicine	1	1							1		
	專業選修最低學分數	**Minimum Credits for Elective Courses - MIRS Major**	**15**										
General Elective Courses 通識選修	通識選修最低學分數	Minimum Credits for Elective Courses - General Education	8										**8 credits required (8學分)**

Total Credits 學分總計	必修學分數	Total Credits for Required Courses	109	157										
	選修最低學分數	Minimum Total Credits for Elective Courses	23											
	畢業最低學分數(時數)	Credit Requirements for Graduation	132	All students are required to complete a minimum of 132 credits										

Remarks： 備註：	1. According to the "Measures for the Implementation of Compulsory English Courses in the Bachelor's Degree Program of Tzu Chi Science and Technology", English placement test shall be conducted in three classes:" English Basic Level ", "English Ordinary Level" and "English Advanced Level". 2. Students of the Bachelor's Degree Program should take at least 8 credits in general elective courses. They can choose freely in the four major courses, but they can choose no more than two courses in each major. 3. The graduation threshold for students of this Department is as follows: Graduation threshold of professional ability: Obtain a Radiation Safety Certificate or CPR certificate while studying. 4.In case of any changes or discrepancies with the actual course offering, the actual courses and credit hours offered by the Department of Medical Imaging and Radiological Sciences shall prevail. 一、依「慈濟科技大學四技部英語必修課程實施辦法」辦理英文分級安置測驗，分為「英文基礎級」、「英文普通級」、「英文進修級」三級分班教學。 二、四技部學生通識選修至少修滿 8 學分，得在四大向度自由選修，但每向度至多選修兩門 三、本系學生畢業門檻如下:專業能力畢業門檻在學期間取得輻射安全證書或 CPR 證書。 四、本表如有變動或與開課狀況不同，一律以醫學影像暨放射科學系實際開課科目及學分時數為準。