慈濟大學醫學影像暨放射科學系 四年制 114學年度課程地圖

113學年入學 課程表	一年級		二年級		三年級		四年級	
	上學期	下學期	上學期	下學期	上學期	下學期	上學期	下學期
共同必修(28)	中文閱讀與書寫(2)	慈濟人文(2)						
	基礎英文(2)							
	程式設計(2) *程式設計:網頁視覺程式設計(2)、APP程式設計入門(2)、邏輯與運算思維(2)。全學年開課，擇一課程修習。							
	通識選修課程(16) 不限領域自由選修。建議於一、二年級修完。							
	院通識課程(4) 由各學院規劃。							
外語課程(2)	外語課程(2) 建議於一、二年級修完。							
體育(3)		運動與健康(2)						
	活動性體育課程興趣選項(1) *活動性體育課程興趣選項由體育教學中心所開設選修課程中任選一門。							
必修-專業基礎(37)	普通物理學(2) 普通物理學實驗(1) 普通化學(2) 普通化學實驗(1) 微積分(一)(2)	普通生物(2) 普通生物實驗(1) 微積分(二)(2) 醫用電子電路學(2) 放射物理學(一)(2)	應用數學(3) 醫學影像程式概論(2) 放射物理學(二)(2) 放射生物學(2) 解剖學(4)	放射化學(2) 生理學(3)	病理學(2)			
必修-專業核心(54)			放射診斷器材學(3)	放射切面解剖學(1) 放射治療物理學(2) 放射診斷技術學(一)(2) 輻射安全學(2)	核子醫學藥物學(2) 核子醫學器材學(2) 超音波學(2) 磁振造影學(2) 放射診斷技術學(二)(2) 電腦斷層影像學(2) 輻射度量(1)	醫學影像診斷學(2) 醫學影像品質管制(2) 醫學影像處理(2) 醫學影像儲傳系統(1) 特殊攝影技術學(2) 放射治療技術學(3) 放射治療器材學(2) 核子醫學技術學(3) 放射治療品質管制(1)	放射診斷技術實習(6) 放射治療技術實習(3) 核子醫學技術實習(3)	書報討論(1)
專業選修(12)	放射醫學概論(2) 醫放專業術語(2) 抗輻射蔬果美妝保養創新應用(2)		解剖學實驗(1) 放射醫學服務學習(2) 放射師之醫學倫理(2) 專題研究(一)(1)	生理學實驗(1) 放射診斷技術學實驗(一)(2) 輻射安全學實驗(1) 電腦斷層與牙科放射技術學(2) 專題研究(二)(1)	磁振造影之臨床應用與研究(2) 放射診斷技術學實驗(二)(2) 治療計畫模擬(1) 專題研究(三)(1)	超音波學實驗(2) 專題研究(四)(1)		進階放射診斷物理暨器材學(2) 進階核子醫學影像物理暨器材學(2) 進階放射治療物理暨器材學(2) 整合醫學與臨床應用(2) 放射醫學實務(1)
共同必修28+外語課程2+體育3+必修(專業基礎)37+必修(專業核心)54+專業選修12=共136學分								
備註：	1.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。 2.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。							

教育目標 核心能力	未來發展
教育目標 培育專業技術與人文素養兼備之放射專業人才 **核心能力** 1、基礎科學能力。 2、基礎醫學專業能力。 3、醫學物理與輻射安全專業能力。 4、放射線器材專業能力。 5、放射線診斷原理與技術專業能力。 6、放射線治療原理與技術專業能力。 7、核子醫學診療原理與技術專業能力。 8、醫事放射師臨床專業工作能力。 9、獨立思考、分析與溝通協調、團隊合作之能力。 10、醫療專業倫理與肩負社會責任能力。	**升學** 四技畢業生在取得學士學位後可出國留學或報考國內放射醫學科學等相關之研究所。 **就業** 參加考選部專門職業及技術人員高等暨普通醫事人員考試，以取得醫事放射師專業執業證照，擔任公私立醫療院所之醫事放射師等。

Curriculum Map of 2025 Academic Year for Bachelor's Degree,Medical Imaging and Radiological Sciences (MIRS) Department of Tzu Chi University

Cirriculum Map for the 113th Academic Year Enrollment	Year 1		Year 2		Year 3		Year 4		Educational Objectives Core Competencies	Future Development
	1st Semester	2nd Semester	1st Semester	2nd Semester	1st Semester	2nd Semester	1st Semester	2nd Semester		
Basic General Courses(28) (Required)	Chinese Reading and Writing(2)	Tzu-Chi Philosophy(2)							**Educational Objectives** To cultivate radiology professionals with both technical expertise and humanistic qualities **Core Competencies** 1、Basic Science Skills 2、Basic Medical Professional Skills 3、Professional Competence in Medical Physics and Radiation Safety 4、Radiological Equipment Professional Skills 5、Radiological Diagnostic Principles and Technical Expertise 6、Radiation Therapy Principles and Technical Expertise 7、Nuclear Medicine Diagnosis and Treatment Principles and Technical Professional 8、Clinical Professional Skills of Medical Radiologists 9、Independent Thinking, Analytical, Communication, Coordination, and Teamwork Skills 10、Medical Professional Ethics and Social Responsibility Skills	**Further studies** After obtaining a bachelor's degree, graduates from four-year technical programs can pursue overseas studies or apply for domestic graduate programs in radiological medical science and related fields. **Employment** Participate in the advanced and general medical personnel examinations held by the Examination Yuan to obtain the professional license for medical radiological technologists, and work as a medical radiological technologist in public or private medical institutions.
	Fundamental English(2)									
	Programming(2)									
	*Programming: Web Visual Programming (2), Introduction to APP Programming (2), Logic and Computational Thinking (2). Classes are open throughout the academic year, and you can choose a course to study									
	General Elective Courses(16) *Elective courses without restrictions in any field. It is recommended to complete these courses during the first and second years.									
	General Courses of the Colleges(4) *Planned by each college.									
Foreign Language Courses(2	**Foreign Language Courses(2)** *It is recommended to complete it in the first or second grade.									
Physical Education(3)		Physical Activity & Health(2)								
	Interest Options for Active Physical Education Courses(1) *The interest option for active physical education courses is to choose any one of the elective courses offered by the Physical Education Center.									
Professional Basic Courses (Required) (37)	General Physics(2) General Physics(Laboratory(1) General Chemistry(2) General Chemistry Laboratory(1) Calculus I(2)	General Biology(2) General Biology Laboratory(1) Calculus II(2) Medical Electronics and Circuits(2) Physics of Radiology I(2)	Applied Mathematics(3) Medical Imaging Processing: An Overview(2) Physics of Radiology II(2) Radiobiology(2) Anatomy(4)	Radiochemistry(2) Physiology(3)	Pathology(2)					
Professional Core Courses for MIRS (Required) (54)			Instrumentation for Diagnostic Radiography(3)	Sectional Anatomy(1) Physics of Radiation Therapy(2) Radiological Technology I(2) Radiation Safety(2)	Radiopharmaceuticals(2) Instrumentation for Nuclear Medicine(2) Medical Ultrasound(2) Magnetic Resonance Imaging(2) Radiological Technology II(2) Computed tomography images(2) Radiation Measurement(1)	Clinical Medical Images(2) Image Evaluation and Quality Management(2) Medical image processing(2) Picture Archiving and Communication System(1) Special Radiographic Technology(2) Radiation Therapy Technology(3) Instrumentation for Radiation Therapy(2) Nuclear Medicine Technology(3)	Clinical Practice in Radiography(6) Clinical Practice in Nuclear Medicine(3) Clinical Practice in Radiation Therapy(3)	Seminar(1)		
Professional Elective Courses for MIRS(12)	Introduction to Radiology(2) English for Radiological Technology(2) Innovative application of anti-radiation vegetable and fruit beauty care(2)		Anatomy Laboratory(1) Learning by serving in radiogical departments(2) Understanding the importance of medical ethics(2) Study of Special Topics (I)(1)	Physiology Experiment(1) Radiological Technology Practice I(2) Radiation Safety Laboratory(1) Computed Tomography and Dental radiography(2) Study of Special Topics (II)(1)	Advanced MRI : Clinical Application and Research(2) Radiological Technology Practice II(2) Simulation of Treatment Planning System(1) Study of Special Topics (III)(1)	Ultrasonography Practice(2) Study of Special Topics (IV)(1)		Advanced physics and instruments for diagnostic radiography(2) Advanced Nuclear Medicine Imaging Physics and Instrumentation(2) Advanced Radiotherapy Physics and Instrumentation(2) Integrative medicine and clinical application(2) Radiological Medicine(1)		
Basic General Courses 28 Credits + Foreign Language Courses 2 Credits + Physical Education 3 Credits+Professional Basic Courses (Required) (37)+Professional Core Courses for MIRS (Required) (54)+Professional Elective Courses for MIRS(12)=Total 136 Credits										
Remarks：	1.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. 2.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.									