Curriculum of the Bachelor Program at the Department of Medical Imaging and Radiological Sciences, Chang Gung University (For students admitted in Fall, 2025)

2025.10.23 revised

Required/ Elective	Course Title	Credit	Year	Fall	Spring	Note
Required Courses	General Biology(I)(II)	4	1	2	2	
	General Biology Laboratory(I)(II)	2	1	1	1	
	General Chemistry(I)(II)	4	1	2	2	
	General Chemistry Laboratory(I)(II)	2	1	1	1	
	General Physics(I)(II)	4	1	2	2	
	General Chemistry Laboratory(I)(II)	2	1	1	1	
	Calculus(I)(II)	6	1	3	3	
	General Introduction to Medical Imaging and Radiological Sciences	1	1	1		
	Physical Education	0	1	0	0	
	Computer Programming and Laboratory	2	2	2		
	The Radiological Physics(I)(II)	4	2	2	2	
	The Radiological Physics Laboratory(I)(II)	2	2	1	1	
	Radiobiology	2	2	2		
	Radiation Detection and Measurement	1	2	1		
	Applied Mathematics(I)	3	2	3		
	Research Orientation	1	2	1		
	Anatomy	2	2		2	
	Anatomy Laboratory	1	2		1	
	Physiology	3	2		3	
	Rediation Safety	2	2		2	
	Diagnostic Radiology Instrumentation	3	2		3	
	Practice School	0	2		0	
	Physical Education	0	2	0	0	
	Principles and Techniques of Diagnostic Radiology(I)(II)	4	3	2	2	
	Principles and Techniques of Diagnostic Radiology Laboratory	1	3		1	
	Principles and Techniques of Radiation Therapy(I)(II)	5	3	4	1	
	Principles and Techniques of Nuclear Medicine(I)	4	3	2	2	
	Principles and Techniques of Nuclear Medicine Laboratory	1	3		1	
	Image Anatomy	1	3	1		
	Ultrasound	2	3	2		
	Nuclear Medicine Instrumentation	2	3	2		
	Magnetic Resonance Imaging	2	3	2		
	Pathology	2	3		2	
	Medical Ethics	1	3		1	
	Radiopharmaceutical	2	3		2	
	Practice of Dental Radiography	1	4	1		
	Practice of Densitometry and Infrared scan	1	4	1		
	Practice of General and Special Medical Imaging	3	4	3		
	Practice of Nuclear Medicine Technology	3	4	3		
	Practice on Radiation Therapy	2	4	2		
	Practicum of Radiotherapy Simulation and Treatment Aids	2	4	2		
	Practice on Medical Physics	2	4	2		
	Practice of Ultrasound	1	4	1		
	Practice on Computed Tomography	1	4	1		
	Practice of Magnetic Resonance Imaging	1	4	1		
	Practice of Angiography	1	4	1		

	Seminar	2	4		2	
Elective Courses	Interpretation of Medical Terms	1	1	1		
	Biostatistics	2	2	2		
	Public Health	2	2	2		
	Radiochemistry	2	2	2		
	Organic Chemistry	2	2	2		
	Teamwork in Medical and Allied Health Professions	1	2	1		
	Applied Electronics	2	2	2		
	Biomedical Signals and Systems	2	2		2	
	Applied Mathematics(II)	2	2		2	Offered bi-annually
	Applied Mathematics(III)	2	2		2	Offered bi-annually
	Seminar(I)	1	2		1	
	Seminar(I)	1	3	1		
	Seminar(II)	1	3	1		
	Electromanetics	3	3	3		Offered bi-annually
	Seminar(II)	1	3		1	
	Seminar(III)	1	3		1	
	Quality Assurance of Radiologic Technology	1	3		1	
	Radiation Dosimetry	3	3		3	Offered bi-annually
	Thermal Physics	3	3		3	Offered bi-annually
	Ultrasound Laboratory	1	3		1	
	Nuclear Electronics	3	3		3	
	Medical Image Processing	2	3		2	
	Modern Physics	3	3		3	Offered bi-annually
	Study Abroad	2	3	2		
	Seminar(III)	1	4	1		
	Seminar(IV)	1	4	1		
	Proton Therapy	1	4		1	
	Special Topics for Radiological Science	4	4		4	

Graduation Cohort：2025

1. Graduation Credits：129 credits
   (1) Required Courses：98 credits (including 18 credits of mandatory hospital practicum)
   (2) Elective Courses：6 credits
      ① At least 2 credits must be department electives.
      (In addition to the professional electives listed in the table above, the following are also recognized as department electives：Cell Biology(Medical Technology), Biochemistry(Nursing), Molecular Biology(Medical Technology), and Introduction to Pharmacology(Biomedical Science))
      ② Up to 4 credits from other departments' courses may be counted as electives.
      (General education courses, physical education, and military training under National Defense Education will not be counted.)
   (3) General Education Credits: Please refer to the General Education Center's course requirements.
      A total of 25 credits from holistic courses, English field, core, and diverse curriculum categories.
2. Physical Education：Required in freshman and sophomore years, 0 credits.
3. English Proficiency Requirement：
   The university has established an English graduation threshold. Students must meet the required standard in order to graduate. Please refer to the Language Center regulations for details.
4. Prerequisite(Blocking)Regulations:
   (1) Principles and Techniques of Radiologic Diagnosis (including lab) is a prerequisite for the following internships:
      •General and Special Radiographic Techniques
      •Dental X-ray Diagnostic Techniques
      •Bone Density Measurement and Infrared Scanning
      •Ultrasonography
      •Computed Tomography
      •Magnetic Resonance Imaging
      •Angiographic Techniques
   (2) Principles and Techniques of Radiation Therapy(including lab) is a prerequisite for the following:
      •Radiation Therapy Equipment Internship
      •Molding and Simulation Imaging Techniques Internship
      •Medical Physics and Practicum
   (3) Nuclear Medicine Technology (including lab) is a prerequisite for the Nuclear Medicine Technology Internship.
   (4) Special Topics Research (1)(2)(3)(4) may be taken sequentially starting from the second semester of sophomore year and are subject to prerequisite restrictions.
   (5) Imaging Anatomy or Ultrasound Studies must be passed before taking Ultrasound Laboratory.
   (6) If either General Physics (1) or (2) is not passed, Radiation Physics (1) cannot be taken.
   (7) If Radiation Physics (1) is not passed, Radiation Physics (2) cannot be taken.
   (8) All prerequisite rules are established and finalized by the department curriculum committee.
5. Other Information：
   (1) Off-Campus Internship：
      ● Second-year students are required to complete a one-week internship (0 credits), scheduled in the 17th week of the second semester.
      ● Fourth-year hospital practicum include the following:
      •General and Special Radiographic Techniques (3 credits)
      •Dental X-ray Diagnostic Techniques (1 credit)
      •Bone Density Measurement and Infrared Scanning (1 credit)
      •Ultrasound Technology (1 credit)
      •Computed Tomography (1 credit)
      •Magnetic Resonance Imaging (1 credit)
      •Angiographic Techniques (1 credit)
      •Nuclear Medicine Technology (3 credits)
      •Radiation Therapy Equipment (2 credits)
      •Medical Physics and Practicum (2 credits)
      •Molding and Simulation Imaging Techniques (2 credits)
      The hospital practicum check-in date is the Monday of the first week of July each year.
      Completion of a certified first-aid training course is required prior to the hospital practicum.
   (2) Students applying for early graduation may substitute two semesters of Special Topics Research for Seminar Discussions.
   (3) Students participating in overseas exchange programs may also substitute two semesters of Special Topics Research for Seminar Discussions.