

I-SHOU UNIVERSITY
Department of Medical Imaging and Radiological Sciences
4-Year Curriculum for Students Admitted in Academic Year 2021

*** Credits required for graduation from the Department: 143, including:**

1. GE core courses: required, 18 credits
2. GE liberal arts education: elective, 10 credits
3. Service Education: required, 0 credits
4. Physical Education: required, 0 credits
5. College-required courses: 3 credits (including 1 college-level cornerstone courses and 1 college-required course)
6. Department-required courses: 98 credits, including academic + practical courses: 0 credits, academic courses: 70 credits, practical courses: 27 credits, and capstone courses: 1 credits
7. Departmental electives: 14 credits
 - a. Academic courses: 12 credits; taking 32 credits out of 12 credits
 - b. Practical courses: 2 credits; taking 6 credits out of 2 credits; at least 0 credits from off-campus internship
8. Other electives: 0 credits

Notes:

1. Students are required to meet the requirements set by the Department for “English Proficiency,” “Information Competency,” and “Professional Certification,” in addition to earning the required number of credits to be eligible for graduation.
2. Before graduation, students are required to take at least one required cornerstone course offered by another college. The credits earned from such courses may be recognized as part of the credits under the category of Liberal Arts Education, but only a maximum of four credits will be recognized accordingly. (For more details about required cornerstone course offered by different colleges, please refer to the announcement on the website of the Curriculum Section.)

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Freshman Year (2021)

Category	Course Code	Course Title	1 st Semester	2 nd Semester	Required / Elective	Remark
General Education	A93A17	Service Education (I)	0		Required	
	A93A18	Service Education (II)		0	Required	
	A93A20	Programming	2		Required	Core
	A93A21	Civic Literacy in the Era of Globalization		2	Required	Core
	A93A22	Chinese Literature 1.0- Reading, Narration and communication		2	Required	Core
	A93A24	Digital English communication (I)	1		Required	Core
	A93A25	Digital English communication (II)		1	Required	Core
	A93A28	Codes in Health and Medicine	2		Required	Core
	A93A29	Secret Codes in Intelligent Technologies		2	Required	Core
College-required Courses	A84E01	Introduction to fundamental medicine		1	Required	Core
Department- required Courses	A53123	General Physics(I)	2		Required	Academic
	A53124	General Physics(II)		2	Required	Academic
	A53135	Calculus(I)	2		Required	Academic
	A53137	Practice in Calculus (I)	1		Required	Academic
	A53136	Calculus(II)		2	Required	Academic
	A53138	Practice in Calculus (II)		1	Required	Academic
	A53115	General Chemistry(I)	2		Required	Academic
	A53116	General Chemistry(II)		2	Required	Academic
	A53139	General Biology	2		Required	Academic
	A53133	Medical Image Processing		2	Required	Academic
	A53141	Working Capability and Occupational Ethics	2		Required	Academic
	A53154	Preliminary investigation of Medical Imaging and Radiological Sciences		1	Required	Practical
Departmental Electives	A53435	Introduction to Radiological	2		Elective	Academic
	A53153	Applied Biostatistics	2		Elective	Academic
	A53132	Medical Electronics	3		Elective	Academic
Total Required Credits for this Academic Year			34			

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Sophomore Year (2022)

Category	Course Code	Course Title	1 st Semester	2 nd Semester	Required / Elective	Remark
General Education	A93A15	Physical Education (I)	0		Required	
	A93A16	Physical Education (II)		0	Required	
	A93A23	Chinese Literature 2.0- Critical thinking and creativity in writing	2		Required	Core
	A93A26	Smart English Practice (I)	2		Required	Core
	A93A27	Smart English Practice (II)		2	Required	Core
College-required Courses	A84709	Basic Physiology	2		Required	Academic
Department-required Courses	A53273	Advanced Physiology		2	Required	Academic
	A53205	Applied Mathematics	3		Required	Academic
	A53207	General Anatomy(I)	2		Required	Academic
	A53206	General Anatomy(II)		2	Required	Academic
	A53231	General Anatomy and Laboratory(I)	1		Required	Practical
	A53232	General Anatomy and Laboratory(II)		1	Required	Practical
	A53210	Radiation Biology		2	Required	Academic
	A53120	Radiation Physics(I)	3		Required	Academic
	A53211	Radiation Physics(II)		3	Required	Academic
	A53219	Radiochemistry & Laboratory(I)	2		Required	Practical
	A53220	Radiochemistry & Laboratory(II)		2	Required	Practical
	A53223	Ultra Sound Diagnostic Technology	2		Required	Academic
	A53229	Ultra Sound Diagnostic Technology Laboratory	1		Required	Practical
	A53311	Magnetic Resonance Imaging(I)		3	Required	Academic
Departmental Electives	A53291	Electrical Engineering	3		Elective	Academic
	A53237	Apprentice of Diagnostic Radiology(I)	1		Elective	Practical
	A53230	Special Photographic	1		Elective	Academic
	A53235	Terminology of Radiological	2		Elective	Academic
Total Required Credits for this Academic Year			37			

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Junior Year (2023)

Category	Course Code	Course Title	1 st Semester	2 nd Semester	Required / Elective	Remark
Department- required Courses	A53332	Instrumentation for Diagnostic Radiology (I)	2		Required	Academic
	A53333	Instrumentation for Diagnostic Radiology (II)		2	Required	Academic
	A53334	Radiation Diagnostic Technology (I)	2		Required	Academic
	A53340	Radiation Diagnostic Technology and Laboratory(I)	1		Required	Practical
	A53304	Clinical Radiation Therapy Technology(II)		2	Required	Academic
	A53341	Radiation Diagnostic Technology and Laboratory(II)		1	Required	Practical
	A53313	Clinical Radiation Therapy Technology(I)	1		Required	Academic
	A53347	Clinical Radiation Therapy Technology and Laboratory (I)	1		Required	Practical
	A53312	Clinical Radiation Therapy Technology(II)		1	Required	Academic
	A53346	Clinical Radiation Therapy Technology and Laboratory (II)		1	Required	Practical
	A53337	Radio Pharmacology	1		Required	Academic
	A53309	Instrumentation for Radiation Therapy	2		Required	Academic
	A53307	Instrumentation for Nuclear Medicine	2		Required	Academic
	A53225	Radiation Dosimetry	2		Required	Academic
	A53338	Radioimmunoassay	1		Required	Academic
	A53301	Pathology		2	Required	Academic
	A53306	Clinical Nuclear Medicine Technology		2	Required	Academic
	A53350	Clinical Nuclear Medicine Technology Laboratory		1	Required	Practical
	A53339	Radiation Treatment Planning		2	Required	Academic
	A53226	Radiation Dosimetry and Health Physical Laboratory		1	Required	Practical
Departmental Electives	A53342	Apprentice of Radiology Medical Image	2		Elective	Practical
	A53343	Medical Image Processing and Archiving System	2		Elective	Academic
	A53310	Radiation Safety and Protection	2		Elective	Academic
	A53387	Seminar(I)	2		Elective	Academic
	A53385	Apprentice of Diagnostic Radiology(II)	1		Elective	Practical
	A53380	Computed tomography: technology and principle	2		Elective	Practical
	A53392	Introduction of AI Application on Medical Images	2		Elective	Academic
Total Required Credits for this Academic Year			30			

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Senior Year (2024)

Category	Course Code	Course Title	1 st Semester	2 nd Semester	Required / Elective	Remark
Department- required Courses	A53424	A Summary in Nuclear Medicine Diagnosis Principle and Technology		1	Required	Summative
	A53401	Ultrasonography Practice	1		Required	off-campus
	A53402	Clinical Radiation Therapy Technology Practice	1		Required	off-campus
	A53403	Computed Tomography Practice	1		Required	off-campus
	A53404	Radiation Dosimetry Practice	1		Required	off-campus
	A53405	Magnetic Resonance Practice	1		Required	off-campus
	A53406	Radiation therapy Planning Practice	1		Required	off-campus
	A53407	General X-Ray Diagnostic Practice	1		Required	off-campus
	A53408	Mold Room Technique and Simulation Practice	1		Required	off-campus
	A53409	Special X-Ray Diagnostic Practice	1		Required	off-campus
	A53411	Nuclear Medicine Imaging Technology Practice	1		Required	off-campus
	A53413	Radioimmunoassay and Nuclear Medicine in-vitro Analysis Practice	1		Required	off-campus
	A53414	Radioisotope Therapy Practice	1		Required	off-campus
	A53415	Cardiac Catheterization Practice	1		Required	off-campus
	A53419	Radiodiagnosis Principle and Technology		1	Required	Academic
	A53420	Radiotherapy Principle and Technology		1	Required	Academic
	A53426	A Summary in Medicine Physics and Radiation Safety		1	Required	Academic
	A53427	A Summary in Radioactive Rays Equipment		1	Required	Academic
Departmental Electives	A53445	A Summary in Foundation Medicine		1	Elective	Academic
	A53384	Magnetic Resonance Imaging(II)		3	Elective	Academic
	A53360	Medical Image Analysis		2	Elective	Academic
	A53361	Cell Biology		2	Elective	Academic
	A53388	Seminar(II)		2	Elective	Academic
	A53446	Quality Assurance for Radiotherapy Technology		1	Elective	Academic
Total Required Credits for this Academic Year			18			