

# St. Mary's School of Medical Imaging Program

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The St. Mary's School of Medical Imaging (SOMI) program is a hospital-based program, partnered with Marshall University (MU) to offer a Bachelor of Science in Medical Imaging. The program curriculum is designed to prepare students to practice Radiography and/or Sonography and give students the opportunity to specialize in an advanced imaging modality such as Cardiac Interventional Radiography, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Mammography, Management, Surgery/Trauma, and/or Vascular Interventional Radiography.

The Radiography curriculum consists of Year 1, Year 2, Year 3, and the advanced modality of choice in Year 4. The Sonography curriculum consists of Year 1, Year 2, and a deviation to Sonography for Year 3 and Year 4. The program can be completed in four years. Credentialed Radiographers may enter the professional portion of the program (Year 4) and obtain the degree.

All pre-requisite courses must be completed according to the MU/MW/SOMI published curriculum before entering the MI curriculum at St. Mary's School of Medical Imaging (SOMI). Applicants may apply to the program while enrolled in a pre-requisite course. Offers of admission will be contingent upon completing the course with a grade of C or better prior to the start of the St. Mary's School of Medical Imaging (SOMI) coursework. A letter grade of C or better must be obtained in each of the following Marshall University (MU) and/or Mountwest (MW) courses designated with an asterisk\* (or equivalent courses from other institutions transferable to Marshall University (MU)).

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## Pre-Requisite Courses

Incoming <u>Marshall (MU)</u> Students		Incoming <u>Mountwest (MW)</u> Students	
Code	Course Name	Code	Course Name
BSC 227	Human Anatomy*	BIOL 260	Human Anatomy with Built in Lab *
BSC 227 L	Human Anatomy Lab*		
CLS 105	Medical-Lab Terminology (CT)	AH 151	Medical Terminology
MTH 121	Concepts and Applications (CT)	MAT 120	Applied Professional Math
ENG 101 or ENG 201 or CMM 103	Beginning Composition Advanced Composition Fund Speech-Communication	COM 112 or COM 125	Oral Communication Interpersonal Communication
BSC 228	Human Physiology*	BIOL 265	Human Physiology with Built in Lab *
BSC 228 L	Human Physiology Lab*		
PHY 101	Conceptual Physics*	SCI 110	Introductory Physics with Built in Lab*
PHY 101 L	Conceptual Physics Lab*		

Applicants who did not attend Marshall University (MU) and/or Mountwest (MW) should verify with the Marshall Registrar Office that all course work will be transferable as equivalent to Marshall University (MU) courses. Course work transferred as "unclassified" will not be acceptable as a pre-requisite course.

**Contact Information:** For further questions or more information, please contact the St. Mary's School of Medical Imaging (SOMI) Program Director, Deborah Moore, by phone at (304) 526-1259 or by email at [Deborah.Moore@st-marys.org](mailto:Deborah.Moore@st-marys.org).

# St. Mary's School of Medical Imaging Program

## Radiography Course Curriculum Plan

The St. Mary's School of Medical Imaging (SOMI) program is a hospital-based program, partnered with Marshall University (MU) to offer a Bachelor of Science in Medical Imaging. The program curriculum is designed to prepare students to practice Radiography and/or Sonography.

The Radiography Course Curriculum consists of Year 1, Year 2, Year 3, and the advanced modality of choice in Year 4. The Sonography curriculum consists of Year 1, Year 2, and a deviation to Sonography in Year 3 and Year 4.

The Radiography Course Curriculum Plan is below with the advanced modalities offered including Cardiac Interventional Radiography, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Mammography, Management, Surgery/Trauma, and/or Vascular Interventional Radiography.

### Radiography Course Curriculum Plan (Advanced Modality of Choice in Year 4)

	Fall Semester				Spring Semester			
	Code	Course Name	Hours	Grade	Code	Course Name	Hours	Grade
Year 1	BSC 227	Human Anatomy	3	___	BSC 228	Human Physiology	3	___
	BSC 227 L	Human Anatomy Lab	1	___	BSC 228 L	Human Physiology Lab	1	___
	CLS 105	Medical-Lab Terminology (CT)	3	___	PHY 101	Conceptual Physics	3	___
	MTH 121	Concepts and Applications (CT)	3	___	PHY 101L	Conceptual Physics Lab	1	___
	ENG 101	Beginning Composition	3	___	ENG 201	Advanced Composition	3	___
	CMM 103	Fund Speech-Communication	3	___	_____	Core II Social Science	3	___
	UNI 100	Freshman First Class	1	___	FYS 100	First Yr Sem Critical Thinking	3	___
	Total Hours		17		Total Hours		17	

	Fall Semester				Spring Semester			
	Code	Course Name	Hours	Grade	Code	Course Name	Hours	Grade
Year 2	MI 202	Patient Care Img Science	3	___	MI 208	Pharmacology for Imaging Sci	2	___
	MI 201	Intro to Radiography	3	___	MI 209	Intro to Imaging Equip	3	___
	MI 204	Radiographic Anatomy	3	___	MI 304	Radiographic Pathology	3	___
	MI 205	Imaging Procedures I	4	___	MI 207	Imaging Procedures II	4	___
	MI 206	Clinical Practice I	4	___	MI 210	Clinical Practice II	4	___
	MI 211	Seminar Imaging Science	1	___	MI 212	Seminar Imaging Sciences II	1	___
		Total Hours		18		Total Hours		17

	Fall Semester				Spring Semester			
	Code	Course Name	Hours	Grade	Code	Course Name	Hours	Grade
Year 3	MI 302	Princ of Radiation Physics	3	___	MI 322	Radiation Safety	3	___
	MI 307	Radiobiology	3	___	MI 308	Rad Image Analysis	2	___
	MI 303	Image Acquisition	3	___	MI 309	Digital Image Acquisition	2	___
	MI 321	Imaging Procedures III	4	___	STA 225	Introductory Statistics (CT)	3	___
	MI 305	Clinical Practice IV	4	___	MI 310	Clinical Practice V	4	___
	MI 306	Seminar Imaging Science	1	___	MI 311	Seminar Imaging Sciences III	1	___
		Total Hours		18		Total Hours		15

Year 4 Cardiac Interventional Radiography	Fall Semester				Spring Semester			
	Code	Course Name	Hours	Grade	Code	Course Name	Hours	Grade
	MI 402	Quality Management	3	___	MI 410	Research Medical Imaging (Capstone)	3	___
MI 403	Adv Practice Medical Img (WI)	3	___	MI 411	Transcultural Healthcare (WI, MC)	3	___	
MI 434	Cardiovascular Imaging	3	___	MI 407	Cardiovascular Anatomy	3	___	
_____	Core II Fine Arts	3	___	_____	Core II Humanities	3	___	
MI 409	Adv Clinical Practice	4	___	MI 426	Advanced Clinical Practice II	4	___	
MI 401	Seminar in Imaging Sci	1	___	MI 435	Seminar ARRT Exam Review II	1	___	
Total Hours		17		Total Hours		17		

Year 4 Computed Tomography (CT)	Fall Semester				Spring Semester			
	Code	Course Name	Hours	Grade	Code	Course Name	Hours	Grade
	MI 402	Quality Management	3	___	MI 410	Research Medical Imaging (Capstone)	3	___
MI 403	Adv Practice Medical Img (WI)	3	___	MI 411	Transcultural Healthcare (WI, MC)	3	___	
MI 404	Adv Sectional Anatomy	3	___	MI 405	CT Procedures	3	___	
_____	Core II Fine Arts	3	___	_____	Core II Humanities	3	___	
MI 409	Adv Clinical Practice	4	___	MI 426	Advanced Clinical Practice II	4	___	
MI 401	Seminar in Imaging Sci	1	___	MI 435	Seminar ARRT Exam Review II	1	___	
Total Hours		17		Total Hours		17		

Year 4 Magnetic Resonance Imaging (MRI)	Fall Semester				Spring Semester			
	Code	Course Name	Hours	Grade	Code	Course Name	Hours	Grade
	MI 402	Quality Management	3	___	MI 410	Research Medical Imaging (Capstone)	3	___
MI 403	Adv Practice Medical Img (WI)	3	___	MI 411	Transcultural Healthcare (WI, MC)	3	___	
MI 404	Adv Sectional Anatomy	3	___	MI 432	Advanced MRI Theory	3	___	
MI 406	MRI Procedures	3	___	_____	Core II Humanities	3	___	
_____	Core II Fine Arts	3	___	MI 426	Advanced Clinical Practice II	4	___	
MI 409	Adv Clinical Practice	4	___	MI 435	Seminar ARRT Exam Review II	1	___	
MI 401	Seminar in Imaging Sci	1	___					
Total Hours		20		Total Hours		17		

Year 4 Mammography	Fall Semester				Spring Semester			
	Code	Course Name	Hours	Grade	Code	Course Name	Hours	Grade
	MI 402	Quality Management	3	___	MI 410	Research Medical Imaging (Capstone)	3	___
MI 403	Adv Practice Medical Img (WI)	3	___	MI 411	Transcultural Healthcare (WI, MC)	3	___	
MI 414	Mammography	3	___	MI 430	Mammography II	3	___	
_____	Core II Fine Arts	3	___	_____	Core II Humanities	3	___	
MI 409	Adv Clinical Practice	4	___	MI 426	Advanced Clinical Practice II	4	___	
MI 401	Seminar in Imaging Sci	1	___	MI 435	Seminar ARRT Exam Review II	1	___	
Total Hours		17		Total Hours		17		





	Fall Semester				Spring Semester			
	Code	Course Name	Hours	Grade	Code	Course Name	Hours	Grade
Year 4 Surgery/Trauma	MI 402	Quality Management	3	___	MI 410	Research Medical Imaging (Capstone)	3	___
	MI 403	Adv Practice Medical Img (WI)	3	___	MI 411	Transcultural Healthcare (WI, MC)	3	___
	MI 427	Adv Trauma and Surgical Rad	3	___	MI 429	Geriatric and Pediatric Rad	3	___
	_____	Core II Fine Arts	3	___	_____	Core II Humanities	3	___
	MI 409	Adv Clinical Practice	4	___	MI 426	Advanced Clinical Practice II	4	___
	MI 401	Seminar in Imaging Sci	1	___	MI 435	Seminar ARRT Exam Review II	1	___
	Total Hours		17		Total Hours		17	

	Fall Semester				Spring Semester			
	Code	Course Name	Hours	Grade	Code	Course Name	Hours	Grade
Year 4 Vascular Interventional Radiography	MI 402	Quality Management	3	___	MI 410	Research Medical Imaging (Capstone)	3	___
	MI 403	Adv Practice Medical Img (WI)	3	___	MI 411	Transcultural Healthcare (WI, MC)	3	___
	MI 408	Vascular Interventional Img	3	___	MI 407	Cardiovascular Anatomy	3	___
	_____	Core II Fine Arts	3	___	_____	Core II Humanities	3	___
	MI 409	Adv Clinical Practice	4	___	MI 426	Advanced Clinical Practice II	4	___
	MI 401	Seminar in Imaging Sci	1	___	MI 435	Seminar ARRT Exam Review II	1	___
	Total Hours		17		Total Hours		17	

(CT) Critical Thinking  
 (MC) Multicultural  
 (WI) Writing Intensive