



Medical Imaging, BS

Department: Nursing and Allied Health Professions
College: Health and Human Services
Website: <https://www.iup.edu/rn-alliedhealth/undergrad/allied-health-majors/medical-imaging-bs/index.html>
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Accreditation: Indiana University of Pennsylvania (IUP) is accredited by the Middle States Commission on Higher Education. All IUP affiliates are accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology or the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Joint Review on Education in Diagnostic Medical Sonography. Currently, IUP is affiliated with University of Findlay, the Community College of Allegheny County, Widener University, and Pennsylvania College of Health Sciences.

Program Description: The program leading to the BS degree in Medical Imaging is designed to prepare students for admission into an IUP affiliate institution focused on one of three tracks: Nuclear Medicine Technology, Diagnostic Medical Sonography (Ultrasound), or Echocardiography. This program is a 3 + 1 whereby the student spends the first 3 years at IUP taking the required math/science and liberal studies courses and then a year at an affiliate where they earn a certificate in one of the specialty diagnostic imaging programs. All of the coursework at IUP is preparatory towards the final year and the requirements by the medical imaging profession. A grade of C or better in the following courses is required: MATH 105, CHEM 103, ENGL 101, PHYS 111, BIOL 150, and ENGL 310 or BCOM 321. Acceptance at an affiliate school is contingent upon the student meeting the academic program requirements.

Career Opportunities: Medical Imaging is a field on the forefront of modern clinical medicine and technological development. Employment of medical imaging technologists is expected to grow faster than the average for all occupations. The median annual salary of Nuclear Medicine Technologists in May 2019 was \$77,950; Diagnostic Medical Sonographers and Echocardiographers was \$68,750. About two-thirds of all technologists work in hospitals, while others work in physicians' offices, outpatient imaging centers, public health institutions, and research and development.

Tracks: Students are admitted to the Medical Imaging major as freshmen into any of the three tracks: Nuclear Medicine Technology, Diagnostic Medical Sonography (Ultrasound), or Echocardiography. Transfer students and those with a previous degree may also be admitted into one of the tracks. Students must meet specific academic requirements to be considered for admission to the affiliate Medical Imaging track.

Nuclear Medicine Technology- Health care professionals in this field are responsible for patient education and preparation regarding the nuclear medicine procedures, administration of radiopharmaceuticals, complex computer imaging studies, and radiation safety procedures.

Diagnostic Medical Sonography (Ultrasound)-Health care professionals use equipment to create images of structures inside the human body. The process involves placing a small device called a transducer against the patient's skin near the body area to be imaged. These images created by sonographers help aid physicians in diagnosing and treating medical conditions in the abdomen, breast, heart, blood vessels, and, more recently, in diagnosing and treating musculoskeletal problems.

Certification: Upon graduation, students earn a Bachelor of Science degree in Medical Imaging from IUP with a certificate in their track. They are eligible to take a national registry examination administered by the Nuclear Certification Board and the American Registry of Radiologic Technologists or the American Registry for Diagnostic Medical Sonography.



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**Four-year
Course
Sequencing**

College: Health and Human Services

Degree: Bachelor of Science

Calendar Year: 2022-2023

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Four-year Sequencing: The below four-year plan outlines the courses required in each semester of your baccalaureate degree. The goal is for you to visualize the years to come and understand what courses or other requirements are needed in order to graduate in four years. This also allows you to plan with your advisor for important engagement activities that support your higher education goals, such as planning for an internship, research, and/or study abroad. The summer and winter terms are also an opportunity to take courses or accomplish other goals.

Freshman Year: Fall			Freshman Year: Spring		
Course	Course Description	Credits	Course	Course Description	Credits
MATH 105	College Algebra	3	CHEM 255	Biochemistry for Health Sci	3
CHEM 103	Chemistry for Health Science	4	LS Requirement	History 196/197/198	3
ENGL 101	Composition I	3	PSYC 101	General Psychology	3
LS Requirement	Fine Arts Requirement	3	LS Requirement	Dimensions of Wellness	3
SOC 151 or 161	Sociology	3	IMAG 101	Careers in Medical Imaging	1
				Free Elective	3
	Total Fall	16		Total Spring	16

Sophomore Year: Fall			Sophomore Year: Spring		
Course	Course Description	Credits	Course	Course Description	Credits
COSC/IFMG 101	Micro-Based Computer Lit.	3	BIOL 150	Human Anatomy	4
ENGL 202	Composition II	3	ENGL 310	Public Speaking or	3
PHYS 111	Physics I Lecture	3	BCOM 321	Business & Interpersonal Comm	
PHYS 121	Physics I Lab	1	PHYS 112	Physics II Lecture	3
	Free Elective	3	PHYS 122	Physics II Lab	1
	Free Elective	3		Free Elective	3
	Total Fall	16		Total Spring	14

Junior Year: Fall			Junior Year: Spring		
Course	Course Description	Credits	Course	Course Description	Credits
BIOL 240	Human Physiology	4	NURS 314	Health Policy and Law	3
	Global and Multicultural Awareness	3	PHIL 130	Biomedical Ethics	3
ENGL 121	Humanities Literature	3	IMAG 480	Medical Imaging Seminar	2
	Free Elective	3		Free Elective	3
				Free Elective	2
	Total Fall	13		Total Spring	13

Senior Year: Fall			Senior Year: Spring		
Courses are taught off campus for one calendar year at the University of Findlay, the Community College of Allegheny County, Widener University, and Pennsylvania College of Health Sciences. Students will not need to register for these courses. Thirty-two credits of articulated courses in the track will be transferred from the institution per the articulation agreement and posted to the official Indiana University of Pennsylvania transcript.					



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Summary of Requirements

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Summary of Requirements: The program leading to the BS degree in Medical Imaging is designed to prepare students for admission into an IUP affiliate institution focused on one of three tracks: Nuclear Medicine Technology, Diagnostic Medical Sonography (Ultrasound), or Echocardiography. This program is a 3 + 1 whereby the student spends the first 3 years at IUP taking the required math/science and liberal studies courses and then a year at an affiliate where they earn a certificate in one of the specialty medical imaging programs. All of the coursework at IUP is preparatory towards the final year and the requirements by the medical imaging profession. A grade of C or better in the following courses is required: MATH 105, CHEM 103/255, ENGL 101, PHYS 111, BIOL 150, and ENGL 310 or BCOM 321. Acceptance at an affiliate school is contingent upon the student meeting the academic program requirements.

Special Requirements: Before starting the clinical year, students need a complete physical examination, immunizations, and screenings as required by the clinical affiliate. During the clinical year, students are required to maintain CPR certification, carry professional liability insurance, and wear uniforms/lab coats. A criminal background check and child abuse history check may be required prior to the clinical year or before sitting for the certification examination.

Liberal Studies (43 credits)

Course	Credits	Grade
Learning Skills: English Composition (6 credits)		
ENGL 101 Composition	3	
ENGL 202 Composition II	3	

Learning Skills: Mathematics (3 credits)		
MATH 105 College Algebra	3	

Humanities (9 credits)		
HIST 196 or 197 or 198	3	
ENGL 121 Humanities Literature	3	
PHIL 130 Biomedical Ethics	3	

Fine Arts (3 credits)		
Select one from the list	3	

Natural Sciences (7 credits)		
CHEM 103 Intro to Chem for Health Sciences	4	
CHEM 255 Biochemistry for Health Sciences	3	

Social Sciences (9 credits)		
PSYC 101 General Psychology	3	
SOC 151 or 161 Sociology	3	
Select from the list (Global/Multicultural)	3	

Health and Wellness (3 credits)		
Select from the list of 143 courses	3	

Liberal Studies Elective (6 credits)		
COSC 101 or IFMG 101 Computer Literacy	3	

Medical Imaging Core Requirements (35 credits)

Course	Credits	Grade
IMAG 101 Careers in Medical Imaging	1	
IMAG 480 Medical Imaging Seminar	2	
Fourth year courses at affiliate institution	32	
Other Requirements (22 credits)		
BIOL 150 Human Anatomy	4	
BIOL 240 Human Physiology	4	
ENGL 310 Public Speaking or	3	
BCOM 321 Bus and Interpersonal Comm.		
NURS 314 Health Policy and Law	3	
PHYS 111 Physics I Lecture	3	
PHYS 121 Physics I Lab	1	
PHYS 112 Physics II Lecture	3	
PHYS 122 Physics II Lab	1	

Free Electives (20 credits)		
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Total Credits Required **120**

- [Global/Multicultural](#), 3 credits required but if you complete a Global Multicultural in the Social Sciences category, this is completed.
- [Writing Intensive](#), 6 credits required, but programs have these courses built into the coursework, so talk with your advisor.
- Review [Degree Works](#) for your progress toward the degree