

MEDICAL IMAGING SCIENCES, B.S.

Overview

The B.S. in Medical Imaging Sciences is a joint-degree program with the Rutgers University School of Health Professions in Newark and Scotch Plains. At GCU, students take a specific set of science courses leading to a minor in biology, and complete the general education (physical education, humanities, and social sciences) requirements at GCU. This typically adds up to a total of 85 or more GCU credits. In the fall of the junior year (consult with advisor and Rutgers University website for deadline date), the student applies to the Rutgers University's School of Health Professions. The student chooses one of the following specialties: cardiovascular sonography (<https://shp.rutgers.edu/clinical-lab-and-imaging-sciences/bachelor-of-science-cardiac-sonography/>) or diagnostic medical sonography (<https://shp.rutgers.edu/clinical-lab-and-imaging-sciences/bachelor-of-science-diagnostic-medical-sonography/>). If accepted, the student spends 15 to 18 months taking the specialized courses (46–50 credits) in the field of study at Rutgers University. At the conclusion of the period of study at Rutgers University, the student earns a Bachelor of Science in Medical Imaging Sciences, jointly awarded by GCU and Rutgers University. Students pay GCU tuition and fees while enrolled at GCU, and Rutgers University tuition and fees while enrolled at Rutgers University.

GCU does not guarantee acceptance into any Rutgers University program. Rutgers University generally expects applicants to have earned no grade lower than a C in the required science courses and no lower than a B- in BI213 Human Anatomy & Physiology I and BI214 Human Anatomy & Physiology II and to have a minimum GPA of at least 2.85 (requirements subject to change). Meeting or exceeding the minimum GPA does not guarantee acceptance into the Rutgers University program. Some Rutgers University courses are taught online.

Requirements

To earn this degree, students must successfully complete at least 120 credits, including General Education (<http://catalog.georgian.edu/undergraduate/academic-programs/bridge-general-education-program-requirements/>) requirements and the major requirements below.

Medical Imaging Sciences Major with a Minor in Biology (Requirements for All Specializations)

Code	Title	Credits
Biology		
BI121	Cellular Organiz., Energetics & Function	4.0
BI204	Genetics & Evolution	4.0
BI213	Human Anatomy & Physiology I	4.0
BI214	Human Anatomy & Physiology II	4.0
Select one of the following:		3.0-4.0
BI219	Microbiology	
BI275	Pathophysiology ¹	
BI320	Cell Biology	
BI407	Neurobiology	
BI422	Advanced Molecular Genetics	

BI427 or BI428	Immunology Fundamentals of Immunology	
BI437	Biochemistry I	
BI490	Developmental Biology	
Biology elective ²		4.0
Chemistry		
CH113	General Chemistry I	4.0
CH114	General Chemistry II	4.0
CH223	Organic Chemistry I	4.0
Health Related Professions		
HRP200	Medical Terminology	3.0
Mathematics		
Select one of the following:		3.0-4.0
MA109	College Algebra	
MA110	Precalculus	
MA115	Calculus I	
MA116	Calculus II	
Physics		
Select one of the following sequences:		8.0
PH111 & PH112	Physics in Everyday Life I and Physics in Everyday Life II	
PH115 & PH116	College Physics I and College Physics II	
PH121 & PH122	University Physics I and University Physics II	
Statistics		
Select one of the following:		3.0
BI203	Experimental Design & Statistics	
MA103	Introduction to Statistical Thinking	
PS430	Rsrch Mthds & Stats for the Beh Sciences	
SO201/CJ202	Social and Crime Statistics	
Total Credits		52.0-54.0

¹ Recommended for students in the Medical Imaging Sciences major

² One of the nine courses in the preceding list is recommended. BI422 Advanced Molecular Genetics is highly recommended.

Recommended electives, particularly for students planning to seek an advanced degree in science: CH224 Organic Chemistry II and MA116 Calculus II. All of the preceding required courses must be completed prior to entry into the Rutgers University portion of the program.

Degree Map(s)

Course	Title	Credits
First Year		
Fall Semester		
GEN101	Pathway to the Bridge ¹	2.0
EN111 or EN221	Academic Writing and Research I ¹ or Honors Argument: Rhetoric & Research	3.0
Select one of the following: ^{1,2}		3.0-4.0
MA109	College Algebra (or higher level MA course) ^{1,2}	
MA110	Precalculus	

MA115	Calculus I	
MA116	Calculus II	
BI121	Cellular Organiz., Energetics & Function ^{1,2}	4.0
Social Science 1 ¹		3.0
Credits		15.0-16.0

Spring Semester

GEN199	WI:Discovering Self in the Universe ¹	3.0
Mod. Lang. or V&P Arts ¹		3.0
BI204	Genetics & Evolution ²	4.0
Mod. Lang. or V&P Arts ¹		3.0
Social Science 2 or History ¹		3.0
Credits		16.0

Second Year**Fall Semester**

Literature ¹		3.0
Social Science 2 or History ¹		3.0
CH113	General Chemistry I ²	4.0
BI213	Human Anatomy & Physiology I ²	4.0
Mod. Lang. or V&P Arts ¹		3.0
Credits		17.0

Spring Semester

PL245	Philosophical Inquiry (or Religious Studies) ¹	3.0
HRP200	Medical Terminology	3.0
CH114	General Chemistry II ²	4.0
BI214	Human Anatomy & Physiology II ²	4.0
Select one of the following: ²		3.0
MA103	Introduction to Statistical Thinking	
BI203	Experimental Design & Statistics	
PS430	Rsrch Mthds & Stats for the Beh Sciences	
SO201	Social and Crime Statistics	
Credits		17.0

Third Year**Fall Semester**

PL245	Philosophical Inquiry (or Religious Studies) ¹	3.0
PH111 or PH115	Physics in Everyday Life I ¹ or College Physics I	4.0
CH223	Organic Chemistry I ²	4.0
Select one of the following: ²		4.0
BI320	Cell Biology	
BI407	Neurobiology	
BI422	Advanced Molecular Genetics	
BI427	Immunology	
BI490	Developmental Biology	
Credits		15.0

Spring Semester

GEN400	WI:Visioning a Future ¹	3.0
Ethics ¹		3.0
BI Elective ^{2,3}		4.0
WS311	Shaping Lives: Women & Gender ¹	3.0

PH112 or PH116	Physics in Everyday Life II ² or College Physics II	4.0
Credits		17.0

Fourth Year**Fall Semester**

Clinical Courses at Rutgers—all credits earned are Rutgers credits		
Credits		0

Spring Semester

Clinical Courses at Rutgers—all credits earned are Rutgers credits		
Credits		0.0
Total Credits		97.0-98.0

¹ General Education² Major³ usually BI219 Microbiology