








MEDICAL IMAGING, EMPHASIS










 - General Education Course

 - Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

Major

The Core Curriculum is designed to foster critical thinking skills and introduce students to basic domains of thinking that transcend disciplines. The Core applies to all majors. Information on specific classes in the Core can be found at <https://www.marshall.edu/gened/>.


Code	Title	Credit Hours
Core Curriculum		
<i>Core 1: Critical Thinking</i>		
FYS 100	First Yr Sem Critical Thinking	3
MTH 229  	Calculus/Analytic Geom I (CT)	5
	Critical Thinking Course	3
<i>Core 2</i>		
ENG 101  	Beginning Composition	3
ENG 201  	Advanced Composition	3
	Core II Communication	3
MTH 229  	Calculus/Analytic Geom I (CT)	5
	Core II Humanities	3
	Core II Social Science	3
	Core II Fine Arts	3
BSC 228 	Human Physiology (Core II Natural/)	4
<i>Additional University Requirements</i>		
MI 411 	Transcultural Healthcare (WI)	3
	Writing Intensive	3
	Multicultural or International	3
PHY 491  & PHY 492 	Capstone and Capstone	2
Major-Specific		
PHY 202  	General Physics I Laboratory	1
PHY 211 	University Physics I	4
PHY 204 	General Physics 2 Laboratory	1
PHY 213 	University Physics II	4
PHY 300 	Electricity & Magnetism	3
PHY 302	Electricity & Magnetism II	3
PHY 304 	Optics	3
PHY 405 	Optics Lab	2
PHY 308	Thermal Physics	3
PHY 320 	Intro Modern Physics	3
PHY 330 	Mechanics	3
PHY 360	Medical Physics	3
PHY 421	Modern Physics Lab	2
PHY 491  & PHY 492 	Capstone and Capstone (C)	2

PHY 442 	Quantum Mechanics	3
PHY 445	Math Methods of Physics	3
PHY 446	Math Methods of Physics II	3
MTH 230  	Calculus/Analytic Geom II	4
MTH 231 	Calculus/Analytic Geom III	4
BSC 227	Human Anatomy	4
BSC 228 	Human Physiology	4
STA 345	Applied Prob and Stat	3
MI 201	Intro to Radiography	3
MI 202 	Patient Care Img Science	3
MI 204 	Radiographic Anatomy	3
MI 205 	Imaging Procedures I	4
MI 206	Clinical Practice I	4
MI 207	Imaging Procedures II	4
MI 208	Pharmacology for Imaging Sci	2
MI 210	Clinical Practice II	4
MI 411 	Transcultural Healthcare	3

Major Information

- Students are required to know and track their degree requirements for graduation or for entrance to a professional school.
- In addition to the Core General Education requirements, the College of Science requires 3 hours of Calculus, and 40 hours of upper level credit.
- Coursework listed as "elective" may vary for each student. Students are encouraged to use elective hours toward a minor or toward prerequisites.
- Students are strongly encouraged to select courses that meet two or more Core or College requirements. For example, a writing intensive literature course could satisfy the Core II humanities requirement as well as the university writing intensive requirement.
- Course offerings and course attributes are subject to change each semester. Please consult each semester's schedule of courses for availability and attributes.
- Math is based on an ACT Mathematics score of 27 or higher. Students with an ACT Mathematics score less than 27 will be placed in the appropriate prerequisite mathematics and science courses.
- In order to graduate, students must maintain a 2.00 Overall GPA and receive a grade of C or better in each course required for the major.

 - General Education Course

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Four Year Plan

A course of study in physics, resulting in a B.S. degree in physics, prepares students for a wide variety of opportunities, such as engineering careers in the private sector, careers in the health professions, employment in industry and government laboratories, advanced technology jobs in science and technology related fields, and careers as science teachers. The B.S. degree program is also excellent preparation for advanced degrees in physics, astronomy, engineering, medicine, or law. Medical Physics is designed for those

who are interested in future study or work in Medical Imaging or Medical Physics.

Course	Title	Credit Hours
First Year		
First Semester		
PHY 202 🌿 🎓	General Physics I Laboratory	1
PHY 211 🌿	University Physics I	4
MTH 229 🌿 🎓	Calculus/Analytic Geom I (CT)	5
ENG 101 🌿 🎓	Beginning Composition	3
FYS 100	First Yr Sem Critical Thinking	3
UNI 100	Freshman First Class	1
Credit Hours		17
Second Semester		
ENG 201 🌿 🎓	Advanced Composition	3
PHY 204 🌿	General Physics 2 Laboratory	1
PHY 213 🌿	University Physics II	4
Core II Social Science (MC/I)		3
MTH 230 🌿 🎓	Calculus/Analytic Geom II	4
Credit Hours		15
Second Year		
First Semester		
PHY 320 🎓	Intro Modern Physics	3
PHY 421 🎓	Modern Physics Lab	2
PHY 445	Math Methods of Physics	3
MTH 231 🌿	Calculus/Analytic Geom III	4
BSC 227	Human Anatomy	4
Credit Hours		16
Second Semester		
PHY 446	Math Methods of Physics II	3
PHY 304 🎓	Optics	3
PHY 405 🎓	Optics Lab	2
BSC 228 🌿	Human Physiology	4
Core II Communication		3
Credit Hours		15
Third Year		
First Semester		
PHY 300 🎓	Electricity & Magnetism	3
PHY 330	Mechanics	3
PHY 308	Thermal Physics	3
MI 201	Intro to Radiography	3
STA 345	Applied Prob and Stat	3
Credit Hours		15
Second Semester		
PHY 442 🎓	Quantum Mechanics	3
PHY 302	Electricity & Magnetism II	3
PHY 360	Medical Physics	3
MI 411 🌿	Transcultural Healthcare	3
Core II Humanities CT, WI		3
Credit Hours		15

Fourth Year

First Semester

PHY 491 🌿	Capstone	1
MI 202 🎓	Patient Care Img Science	3
MI 204 🎓	Radiographic Anatomy	3
MI 205 🎓	Imaging Procedures I	4
MI 206	Clinical Practice I	4
Credit Hours		15

Second Semester

PHY 492 🌿	Capstone	1
Core II Fine Arts		3
MI 207	Imaging Procedures II	4
MI 208	Pharmacology for Imaging Sci	2
MI 210	Clinical Practice II	4
Credit Hours		14
Total Credit Hours		122