

# Medical Physics

MED 2300	MR Imaging Technology, Ultrasound, and Interventional	0.5
MED 2230	Computational Medical Physics	.5

Medical Physics is one of the select non-MD specialties recognized by the American Board of Medical Specialties. Medical Physicists contribute to maintaining and improving the quality, safety and cost-effectiveness of healthcare services through patient-oriented activities requiring expert action, and optimized clinical use of medical devices, such as CT and MRI scanners, linear accelerators, and treatment planning systems, including patient risk and protection.

Activities are based on current best evidence or the Medical physicists' own scientific research when the available evidence is not sufficient. The career path eventually leads to residency training and certification by the American Board of Radiology.

Students will write a publishable thesis and engage in practical experience, both of which are essential to securing a residency. This is also the key metric of success for students and ultimately the program, in addition to students' academic success beyond residency and board certification. In addition, the program will be distinctive in that students will have a full semester to undertake their research and work closely with faculty.

Learn more about the SCM in Medical Physics Program at: <https://www.brown.edu/med-physics-graduate-program/>

## Coursework

- Students must complete the Responsibility Conduct or Research module
- Students must complete the RSNA Ethics in Graduate and Resident Education module
- Students must complete all courses in the curriculum (<https://www.brown.edu/med-physics-graduate-program/curriculum/courses/>)
- Students must earn grades of B or better in all courses
  - All courses must be taken for a grade
  - Credit will only be given for graduate-level courses taken at Brown

## Research

- Students must become a student member of the AAPM (\$50 per year; the program will pay the fee for students who need financial assistance)
- Students must choose a thesis advisor before the start of second semester. In turn the thesis advisor must declare their commitment.
- Students must submit final thesis, present work as a seminar, and pass final oral examination by Thesis Committee

## Required Courses

Year 1- Fall

MED 2200	Anatomy and Physiology	.75
MED 2210	Radiological Physics and Dosimetry	1
MED 2220	Radiation Protection & Instrumentation	.75
MED 2310	Radiation Biology (Project or E)	.5

Year 2- Fall

MED 2270A	Research and Clinical Practicum for Medical Physics	2.5
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Summer

Project or Elective Course

Year 1- Spring

BIOL 1555	Methods in Informatics and Data Science for Health	1
MED 2250	Radiation Therapy Physics	1
MED 2260	Physics of Medical Imaging	1

Year 2- Spring

MED 2280	Nuclear Medicine Physics	.5
MED 2290	Advanced Radiation Therapy	.5