

MEDICAL PHYSICS, CERTIFICATE

The Certificate in Medical Physics program offers a career pathway for individuals who have already earned a PhD in physics or a related field (e.g., engineering, computer science or physical chemistry) and a physics minor. The program provides students with elective clinical experience and a curriculum based on the recommendations of the American Association of Physicists in Medicine (AAPM). The program is fully accredited by the Commission on Accreditation of Medical Physics Education Programs (CAMPEP) and prepares students to enter a CAMPEP-accredited residency program in medical physics.

For more information: <https://www.med.upenn.edu/mpp/cmp.html>

Curriculum

A total of six course units is required over two semesters.

The Certificate in Medical Physics provides students with a curriculum based on the recommendations of AAPM report #197S, which outlines the ideal training for a post-graduate education in medical physics. The coursework includes radiological physics, radiation protection, medical imaging, medical ethics/government regulation, anatomy and physiology, radiobiology, and the physics of radiation therapy.

First Year		
Fall		
		Course Units
MPHY 6000	Professional Development	0.0
MPHY 6010	Introduction to Radiation Protection	0.5
MPHY 6020	Physics of Medical / Molecular Imaging	1.0
MPHY 6030	Image-Based Anatomy	1.0
MPHY 6040	Radiological Physics	1.0
		Course Units 3.50
Spring		
MPHY 6000	Professional Development	0.0
MPHY 6050	Medical Ethics / Government Regulation	0.5
MPHY 6060	Physics of Radiation Therapy	1
MPHY 6070	Radiation Biology	1
		Course Units 2.50
		Total Course Units 6.00

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2025 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.