

Post-PhD Graduate Certificate in Medical Physics

Through the Commission on Accreditation of Medical Physics Education Programs (CAMPEP)–accredited Washington University Post-PhD Graduate Certificate in Medical Physics program, students will become familiar with the major texts and literature in the area of medical physics, and they will be exposed to a wide array of treatment techniques and quality control procedures. These experiences will equip students with the necessary means to further their education. Graduates of the program will have an understanding of the role of patient safety in clinical physics, and they will have the necessary physical and scientific background for a career in medical physics. They will be able to use research and inquiry to acquire knowledge, and they will also have the ability to critically evaluate research and scholarship and to pose new questions and solve problems in medical physics. This program will help students to develop the professional and interpersonal skills necessary for success in a collaborative, multidisciplinary environment.

The program is led by Associate Professor of Radiation Oncology Michael Altman, PhD, with Associate Professor of Radiation Oncology Tiezhi Zhang, PhD, serving as the assistant program director. This program requires the completion of 18 credit units and is offered in convenient one- and two-year formats.

Course Schedule

One-Year Sample Course Schedule

Course	Fall Units	Spring Units	Summer Units
First Year			
Principles of Human Anatomy and Development (Biol 4580)	3	—	—
Radiological Physics and Dosimetry (MedPhys 502)	3	—	—
Radiation Protection and Safety (MedPhys 521)	2	—	—
Radiobiology (MedPhys 505)	—	2	—
Radiation Oncology Physics (MedPhys 506)	—	3	—
Biological Imaging Technology (ESE 589)	—	3	—
Advanced Clinical Medical Physics Laboratory (MedPhys 523)	—	—	2
	8	8	2

Two-Year Sample Course Schedule

Course	Fall Units	Spring Units	Summer Units
First Year			
Principles of Human Anatomy and Development (Biol 4580)	3	—	—
Radiological Physics and Dosimetry (MedPhys 502)	3	—	—
Radiobiology (MedPhys 505)	—	2	—
Biological Imaging Technology (ESE 589)	—	3	—
Advanced Clinical Medical Physics Laboratory (MedPhys 523)	—	—	2
	6	5	2
Second Year			
Radiation Protection and Safety (MedPhys 521)	2	—	—
Radiation Oncology Physics (MedPhys 506)	—	3	—
	2	3	0