

Master of Science in Medical Physics

The MSMP program is built on courses accredited by the Commission on Accreditation of Medical Physics Education Programs (CAMPEP), through which students will become familiar with the major texts and literature in the area of medical physics. Students will be exposed to a wide array of radiation treatment techniques and quality control procedures, and they will also perform cutting-edge research with renowned researchers. These experiences will equip students with the knowledge, skills and experiences necessary to further their careers in medical physics.

Admissions

For a list of MSMP admissions requirements, please visit the Department of Radiation Oncology website.

Program Format

The MSMP program is designed for full-time study over the course of two academic years, starting in the fall semester. A minimum of 30 credit hours are required for degree completion, and this requirement will be met with a combination of core courses, department-approved electives, and either thesis research or clinical rotations. Courses will run over a traditional 16-week semester schedule during the fall and spring semesters. During the summer, students will be expected to work on their thesis research or clinical project, and they will also have the opportunity to perform clinical rotations to fine-tune their clinical skills.

Course Schedule

Sample Clinical Project Stream Schedule

Course	Fall Units	Spring Units	Summer Units
First Year			
Radiation Protection and Safety (MedPhys 521)	2	—	—
Independent Study (MedPhys 503)	1	—	—
Radiological Physics and Dosimetry (MedPhys 502)	3	—	—
Radiobiology (MedPhys 505)	—	2	—
Radiation Oncology Physics (MedPhys 506)	—	3	—
Biological Imaging Technology (ESE 589)	—	3	—
Independent Study (MedPhys 503)	—	1	—
Summer: Optional clinical rotation, clinical project, or studentship	—	—	—
	6	9	0
Second Year			

Clinical Imaging Fundamentals (MedPhys 501)	2	—	—
Clinical Rotations (MedPhys 522)	1	—	—
Clinical Project (MedPhys 503C)	3	—	—
Elective Course I (Optional)	—	—	—
Advanced Clinical Medical Physics Laboratory (MedPhys 523)	—	2	—
Ethics, Professionalism and Current Topics (MedPhys 504)	—	1	—
Elective Course II (Optional)	—	3	—
Elective Course III (Optional)	—	3	—
Summer: Optional clinical rotation	—	—	—
	6	9	0

Sample Thesis Research Stream Schedule

Course	Fall Units	Spring Units	Summer Units
First Year			
Principles of Human Anatomy and Development (Biol 4580)	3	—	—
Radiation Protection and Safety (MedPhys 521)	2	—	—
Radiological Physics and Dosimetry (MedPhys 502)	3	—	—
Independent Study (MedPhys 503)	1	—	—
Radiobiology (MedPhys 505)	—	2	—
Radiation Oncology Physics (MedPhys 506)	—	3	—
Biological Imaging Technology (ESE 589)	—	3	—
Independent Study (MedPhys 503)	—	1	—
Summer: Optional clinical rotation, thesis research	—	—	—
	9	9	0
Second Year			
Clinical Imaging Fundamentals (MedPhys 501)	2	—	—
Clinical Rotations (MedPhys 522)	1	—	—
MS Thesis Research (MedPhys 503T)	3	—	—
Elective Course I (Optional)	—	—	—
Advanced Clinical Medical Physics Laboratory (MedPhys 523)	—	2	—
Ethics, Professionalism and Current Topics (MedPhys 504)	—	1	—
Elective Course II (Optional)	—	—	—
Thesis Research II	—	—	—
Summer: Optional enhanced clinical rotation, thesis research	—	—	—
	6	3	0