

USF-Moffitt Requirements for Ph.D. in Applied Physics with Focus on Medical Physics

1) Applied Physics Core courses: (required)

(3)	Mathematical Methods I	PHZ 5115
(3)	Electricity and Magnetism I	PHY 6346
(3)	Quantum Mechanics I	PHY 6645
(3)	Quantum Mechanics II	PHY 6646
(3)	Statistical Mechanics	PHY 6536
<i>(15)</i>		

2) Medical Physics Core Courses: (required)

(3)	Radiation Therapy Physics	PHY
(3)	Radiological Physics & Dosimetry	PHY
(3)	Radiobiology For Physicists	PHY
(1)	Medical Physics Seminars	PHY
(3)	Biomedical Image Processing	EEL 6935-001 (Fundamentals of Imaging in Medicine)
(3)	Radiation Health Principles	PHC 6306 + PHC 7935 (Radiation Protection and Safety)
(3)	Medical Anatomy	GMS 6605 (or BMS 5190)
(3)	Computational Physics I	PHZ 5156C (or PHZ 5151C or PHZ 5937)
<i>(22)</i>		

3) Practical Experience Core Course: (required)

(3) Radiotherapy Physics Clinical Practicum (PHY course taught at MCC)

4) Electives:

Medical Physics courses listed in 2 and 3 fulfill elective requirements for the Ph.D. in Applied Physics.

5) Qualifying Process:

The student, in consultation with his or her research advisor, will assemble a supervisory committee that consists of the advisor and at least three other faculty members, at least two of whom are in the Physics Department and one of them is a Moffitt Cancer Center Medical Physics faculty. The Qualifying Process (described in detail in a separate document) is based on the student's GRE Physics test score, graduate GPA at USF, and research accomplishments and potential. If the supervisory committee judges the qualifying process to be successfully completed, the student may proceed to the candidacy stage.

6) Admission to candidacy:

To become a Ph.D. Candidate, the student must present a dissertation proposal and successfully defend that proposal to the supervisory committee.

7) Dissertation:

The candidate will conduct original and significant research, describe that research and the results in a doctoral dissertation and defend that dissertation in an oral presentation to the supervisory committee. The defense is open to the public and must be scheduled according to the regulations of the Graduate School. (24) Dissertation Research (PHY 7980).

Core Requirements:

Applied Physics Courses	15 hours
Medical Physics Courses	22 hours
Clinical Practicum or Labs	3 hours
Dissertation Research	24 hours
TOTAL	63 hours