

## University of Massachusetts Lowell

### EXAMPLE ACADEMIC PLAN FOR PhD in PHYSICS - MEDICAL PHYSICS OPTION Entering with MS in Physics

This sequence assumes the entering student has advanced preparation in the core Physics courses, which are part of the requirements for the PhD degree in Physics. This includes those in sections A.2.a.2–3 and a thesis. The Advanced Project may be waived if the appropriate conditions are met.

#### Year 1, Semester 1 (Fall)

98.501	Radiation Safety and Control – I	(3)
98.509	Nuclear Instrumentation	(3)
98.605	Radiation Interactions and Transport	(3)
98.711	Radiological Sciences Seminar	(0)
96.701	Physics Colloquium	(0)

#### Year 1, Semester 2 (Spring)

98.596	Introduction to Medical Imaging	(3)
98.562	Radiation Biology	(3)
98.565	Radiation Therapy Physics	(3)
98.712	Radiological Sciences Seminar	(0)
96.702	Physics Colloquium	(0)

#### Year 1, Summer Trimester

34.651	Sectional Human Anatomy	(3)
34.659	Sectional Human Anatomy Lab	(1)

— TARGET DATE FOR GRADUATE RESEARCH ADMISSION EXAM —

#### Year 2, Semester 3 (Fall)

98.597	Advanced Medical Imaging Physics	(3)
98.676	Graduate Medical Physics Internship	(1)
98.533	External Dosimetry and Shielding	(3)
IB.520	Ethical Issues in Biomedical Research	(1)
98.711	Radiological Sciences Seminar	(1)
96.701	Physics Colloquium	(0)

— TARGET DATE FOR COMPREHENSIVE EXAMINATION —

#### Year 2, Semester 4 (Spring)

98.665	Advanced Radiation Therapy Physics	(3)
98.606	Monte Carlo Simulation of Radiation Transport	(3)
98.686	Advanced Medical Physics Internship	(1)
98.541	Radiochemistry or other Approved Elective	(3)
98.712	Radiological Sciences Seminar	(0)

96.702 Physics Colloquium (0)

**Year 3, Semester 5 (Fall)**

Approved Elective (3)  
96.756 PhD dissertation Research (6)  
98.711 Radiological Sciences Seminar (1)  
96.701 Physics Colloquium (0)

**Year 3, Semester 6 (Spring)**

Approved Elective (3)  
96.756 PhD dissertation Research (6)  
98.712 Radiological Sciences Seminar (0)  
96.702 Physics Colloquium (0)

**Year 4, Semester 7 (Fall)**

96.756 PhD dissertation Research (9)  
98.711 Radiological Sciences Seminar (0)  
96.701 Physics Colloquium (0)

**Year 4, Semester 8 (Spring)**

96.756 PhD dissertation Research (9)  
98.712 Radiological Sciences Seminar (0)  
96.702 Physics Colloquium (0)

The schedule in Year 4 may be continued in subsequent years, as appropriate within the time limit set by the University and the Department, depending on the progress of the student's dissertation research.

— TARGET DATE FOR DISSERTATION DEFENSE —