

# MEDICAL PHYSICS, M.S.

## REQUIREMENTS

### MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (<http://guide.wisc.edu/graduate/#policiesandrequirements>), in addition to the program requirements listed below.

### MAJOR REQUIREMENTS

#### MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

#### Mode of Instruction Definitions

**Accelerated:** Accelerated programs are offered at a fast pace that condenses the time to completion. Students typically take enough credits aimed at completing the program in a year or two.

**Evening/Weekend:** Courses meet on the UW-Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

**Face-to-Face:** Courses typically meet during weekdays on the UW-Madison Campus.

**Hybrid:** These programs combine face-to-face and online learning formats. Contact the program for more specific information.

**Online:** These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

### CURRICULAR REQUIREMENTS

Requirement Detail	
Minimum Credit Requirement	40 credits
Minimum Residence Credit Requirement	37 credits
Minimum Graduate Coursework Requirement	20 credits must be graduate-level coursework. Details can be found in the Graduate School's Minimum Graduate Coursework (50%) policy ( <a href="https://policy.wisc.edu/library/UW-1244">https://policy.wisc.edu/library/UW-1244</a> ).
Overall Graduate GPA Requirement	3.00 GPA required. This program follows the Graduate School's policy: <a href="https://policy.wisc.edu/library/UW-1203">https://policy.wisc.edu/library/UW-1203</a> .

Other Grade n/a

Requirements

Assessments and Examinations Candidates are expected to take an oral PhD qualifying examination by the end of the second year of study. Contact the department for more information.

Students expecting to continue with the PhD must pass the qualifying exam and will be granted the MS degree. Students who wish to receive only the MS degree may complete a thesis or pass the qualifying exam.

Language Requirements No language requirements.

### REQUIRED COURSES

Code	Title	Credits
<b>Required Courses</b>		
MED PHYS/ B M E/H ONCOL/ PHYSICS 501	Radiation Physics and Dosimetry	3
MED PHYS/ B M E 566	Physics of Radiotherapy	3
MED PHYS/N E 569	Health Physics and Biological Effects	3
MED PHYS/ B M E 573	Mathematical Methods in Medical Physics	3
MED PHYS/ B M E 574	Data Science in Medical Physics	3
MED PHYS/ B M E 578	Non-Ionizing Diagnostic Imaging	4
MED PHYS/ B M E 580	The Physics of Medical Imaging with Ionizing Radiation	4
MED PHYS 581	Laboratory for Medical Imaging with Ionizing Radiation	1
MED PHYS/ PHYSICS 588	Radiation Production and Detection	4
MED PHYS 510	Fundamentals of Cellular, Molecular, and Radiation Biology	3
MED PHYS 671	Selected Topics in Medical Physics (Topic: Anatomy and Physiology)	2
MED PHYS 701	Ethics and the responsible conduct of research and practice of Medical Physics	1
MED PHYS 900	Journal Club and Seminar <sup>1</sup>	4
<i>Advanced Course - In consultation with their advisor/committee, student select one MED PHYS course at the 600 level or above. <sup>2</sup></i>		2-3

**Total Credits 40-41**

**1**

Students will take MED PHYS 900 Journal Club and Seminar four semesters for 1 credit each semester for a total of 4 credits.

**2**

Students may not take MED PHYS 662, MED PHYS 663, MED PHYS 664, MED PHYS 665, MED PHYS 666. MED PHYS 701, MED PHYS 900, MED PHYS 990 do not count towards this requirement.

### Health Physics Pathway<sup>3</sup>

In addition to the above requirements, students completing the Health Physics emphasis must take the following courses:

Code	Title	Credits
<b>Required Courses for Health Physics Emphasis</b>		
N E 427	Nuclear Instrumentation Laboratory	2
N E 571	Economic and Environmental Aspects of Nuclear Energy	3
MED PHYS 699	Independent Reading or Research	1

One (1) credit of an independent reading course (699) on Health Physics Rules and Regulations.

An exemption from the Core Curriculum requirement requires the approval of the Graduate Program Director. If the entirety of the Core Curriculum is not taken, the student will not satisfy the CAMPEP Core Curriculum requirement.

### 3

These pathways are internal to the program and represent different curricular paths a student can follow to earn this degree. Pathway names do not appear in the Graduate School admissions application, and they will not appear on the transcript.