

MEDICAL PHYSICS, PHD

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	54 credits
Minimum Residence Credit Requirement	42 credits
Minimum Graduate Coursework Requirement	40 credits must be graduate-level coursework. Refer to the Graduate School: Minimum Graduate Coursework (50%) Requirement policy: https://policy.wisc.edu/library/UW-1244 (https://policy.wisc.edu/library/UW-1244/).
Overall Graduate GPA Requirement	3.00 GPA required. Refer to the Graduate School: Grade Point Average (GPA) Requirement policy: https://policy.wisc.edu/library/UW-1203 (https://policy.wisc.edu/library/UW-1203/).

Other Grade Requirements n/a

Assessments and Examinations Candidates are expected to take the Oral Qualifying Examination by the end of the 4th semester of study, and to take the PhD Preliminary Examination by the end of the third year of study. Permission of the Department Chair is required if the PhD Preliminary Examination must be taken after the end of the third year. Defense of a dissertation is required within five years of successful completion of the PhD Preliminary Examination.

Language Requirements No language requirements.

Graduate School Breadth Requirement A doctoral minor or graduate/professional certificate is not required for students in the Medical Physics Graduate Program as graduate students enroll in sufficient breadth courses required for completing the "CAMPEP Track" in our graduate program (>98% of students). However, a student can complete a minor or certificate offered by another graduate program at UW-Madison, if desired and with the approval of his/her advisor. Please see the Medical Physics Graduate Student Handbook (<https://www.medphysics.wisc.edu/wp/graduate-program> (<https://www.medphysics.wisc.edu/wp/graduate-program/>)) for more information.

REQUIRED COURSES

Code	Title	Credits
Core		
Students must complete the following courses.		
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 ¹	4
Advanced Coursework ^{2,3}		9

In consultation with their advisor/committee, students select nine credits of advanced coursework at the 600 level or above. Three credits must be in MED PHYS.

Research

Students take research credits to reach the minimum credit requirement.

MED PHYS 990	Research	8+
Total Credits		54

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 use one credit of MED PHYS 662, MED PHYS 663, MED PHYS 664, MED PHYS 665, or MED PHYS 666.

³ MED PHYS 701, MED PHYS 900, and MED PHYS 990 do not satisfy this requirement.

Health Physics Pathway ¹

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

Code	Title	Credits
Core		
Students must complete the following courses.		
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 (Health Physics Rules and Regulations)	1

An exemption from the Core Curriculum requirement requires the approval of the chair of the graduate committee. If the entirety of the Core Curriculum is not taken, the student will not satisfy the CAMPEP Core Curriculum requirement.

¹ 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.