MEDICAL PHYSICS, MS

One of the basic science departments of the UW–Madison School of Medicine and Public Health, the Department of Medical Physics offers comprehensive training in diagnostic and therapeutic medical physics and in health physics. Achievement of the MS degree in this department reflects strong scholarship in one of the top medical physics programs in North America. Graduates are prepared for teaching and/or research positions in universities, national laboratories, or in the medical and nuclear technology industries. Graduates are also prepared for admission into medical physics residency programs to become board eligible for clinical medical physics positions.

Medical physicists may participate professionally in the treatment of patients, in advanced medical imaging and diagnostic procedures, or in related areas of research and teaching. Health physicists may operate radiation protection programs at nuclear industrial facilities, hospitals, or laboratories, or may perform research on methods of measuring ionizing radiations (i.e., dosimetry).

A unique quality of the medical physics program is the broad range of expertise and research interests of the faculty. Students receive training in diagnostic x-ray physics, x-ray computerized tomography (CT), magnetic resonance imaging (MRI) and spectroscopy, nuclear medicine and positron emission tomography (PET) imaging, biomagnetism, medical ultrasound, elastography, radiation dosimetry, radiation treatment planning, and radiobiology.

The department also houses the Medical Radiation Research Center and the Accredited Dosimetry Calibration Laboratory, one of four in the U.S. accredited by the American Association of Physicists in Medicine. In addition, the department provides clinical support services to the radiology and human oncology departments. It also operates a PET radiotracer production facility (with two cyclotrons available), a medical image analysis laboratory, and a small bore MRI scanner and photoacoustic ultrasound system in the Small Animal Imaging Facility. Each of these facilities provides unique training and support opportunities for graduate students. Access to state-of-the-art x-ray angiography, CT, MRI, and PET/CT and PET/MR systems is readily available.

ADMISSIONS

ADMISSIONS

Students apply to the Master of Science in Medical Physics through one of the named options:

- Medical Physics: Accelerated Program, MS (http://guide.wisc.edu/graduate/medical-physics/medical-physics-ms/medical-physics-accelerated-program-ms/)
- Medical Physics: Clinical/Research, MS (http://guide.wisc.edu/graduate/medical-physics/medical-physics-ms/medical-physics-clinical-research-ms/)

FUNDING

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (https://grad.wisc.edu/funding/) is available from the Graduate School. Be sure to check with your program for individual policies and restrictions related to funding.

PROGRAM RESOURCES

The department typically supports 85%–95% of all students enrolled in the medical physics graduate program through department or university fellowships, research or teaching assistantships, or NIH NRSA training grant appointments. All awards include a comprehensive health insurance program and remission of tuition. The student is responsible for segregated fees. While most of the students in the program are funded, less than one-fifth of the students in the Medical Physics Graduate Program are terminal MS degree students, and financial support for terminal MS degree students is not guaranteed.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

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

MAJOR REQUIREMENTS

CURRICULAR REQUIREMENTS

Requirement	Detail
Minimum Credit Requirement	40 credits
Minimum Residence Credit Requirement	See named options for policy information.
Minimum Graduate Coursework Requirement	20 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	See named options for policy information.

Language Requirements	No language requirements.

REQUIRED COURSES

Select a named option for courses required.

NAMED OPTIONS

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Master of Science in Medical Physics must select one of the following named options:

View as listView as grid

- **MEDICAL PHYSICS: ACCELERATED PROGRAM, MS (HTTP://GUIDE.WISC.EDU/GRADUATE/MEDICAL-PHYSICS/MEDICAL-PHYSICS-MS/MEDICAL-PHYSICS-ACCELERATED-PROGRAM-MS/)**
- **MEDICAL PHYSICS: CLINICAL/RESEARCH, MS (HTTP://GUIDE.WISC.EDU/GRADUATE/MEDICAL-PHYSICS/MEDICAL-PHYSICS-MS/MEDICAL-PHYSICS-CLINICAL-RESEARCH-MS/)**

POLICIES

POLICIES

Students should refer to one of the named options for policy information:

- Medical Physics: Accelerated Program, MS (http://guide.wisc.edu/graduate/medical-physics/medical-physics-ms/medical-physics-accelerated-program-ms/)
- Medical Physics: Clinical/Research, MS (http://guide.wisc.edu/graduate/medical-physics/medical-physics-ms/medical-physics-clinical-research-ms/)

PROFESSIONAL DEVELOPMENT

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (https://grad.wisc.edu/pd/) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

LEARNING OUTCOMES

1. Articulates, critiques, and/or elaborates theories, research methods, and approaches to inquiry in the field of medical physics in oral or written formats.
2. Evaluates and/or synthesizes information pertaining to questions or challenges in the field of medical physics.
3. Demonstrates ethical research and professional conduct.

PEOPLE

PEOPLE

Faculty: Please see a comprehensive list of our faculty (https://www.medphysics.wisc.edu/faculty/) on the department website.

ACCREDITATION

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Commission on Accreditation of Medical Physics Education Programs (CAMPEP) (http://www.campep.org)

Accreditation status: Accredited through December 31, 2027. Next accreditation review: Spring 2026.