

MEDICAL PHYSICS (PH.D.)

Medical Physics is an applied branch of physics concerned with the application of the concepts and methods of physics to the diagnosis and treatment of human disease. Medical Physicists participate in clinical service and consultation, research and development, and education in the areas of radiation oncology, diagnostic radiology, nuclear medicine, and health physics. The Department of Oncology offers courses of study leading to a Master of Science degree, a Doctor of Philosophy degree, a Professional Doctorate degree, or a Graduate Certificate in Medical Physics. Through courses, seminars, laboratories, research experiences, and clinical internships, the Medical Physics programs provide education and clinical training in the physics of Diagnostic Radiology, Nuclear Medicine, and Radiation Oncology.

Admission to this program is contingent upon admission to the Graduate School (<https://bulletins.wayne.edu/graduate/general-information/admission/>) and the graduate programs in the School of Medicine (<https://bulletins.wayne.edu/graduate/school-medicine/programs/>). A bachelor's degree in physics or a physical science is the preferred background for students entering these programs, although candidates with degrees in other scientific or technological specialties may be accepted provided they have an adequate education in physics and mathematics. Applicants with incomplete physics and/or mathematics backgrounds will be required to complete their preparation in these areas before acceptance into a program.

The Ph.D. requires seventy eight credits beyond the baccalaureate including eighteen credits of dissertation direction. The eighteen credit dissertation registration requirement is fulfilled by registering for the courses ROC 9991, ROC 9992,(Doctoral Dissertation Research and Direction I, II, respectively), in consecutive academic year semesters. The dissertation must be based on original research under the direction of a graduate faculty advisor.

All course work must be completed in accordance with the regulations of the Graduate School (<https://bulletins.wayne.edu/graduate/general-information/academic-regulations/>) and the School of Medicine (<https://bulletins.wayne.edu/graduate/school-medicine/programs/>) governing graduate scholarship and degrees.