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 Requirements

Admission to this program is contingent upon admission to the Graduate School (http://bulletins.wayne.edu/graduate/general-information/admission) and the graduate programs in the School of Medicine (http://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. Applicants for the Graduate Certificate are required to have a Ph.D. in physics or related discipline prior to admission.

Academic Scholarship

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

The Ph.D. requires ninety credits beyond the baccalaureate including thirty credits of dissertation direction. The thirty credit dissertation registration requirement is fulfilled by registering for the courses ROC 9991, ROC 9992, ROC 9993, and ROC 9994 (Doctoral Dissertation Research and Direction I, II, III, and IV, respectively), in consecutive academic year semesters. The dissertation must be based on original research under the direction of a graduate faculty advisor. Course requirements are listed on the program’s webpage (http://medicalphysics.med.wayne.edu/phdprogram.php).

Assistantships and Research: The Department has graduate assistantships and graduate research positions available for a number of qualified full-time students. All students accepted into the graduate degree program are considered for financial assistance and no application forms are necessary for that purpose. Students on assistantships are advised to elect no more than twelve credits in a given semester. All students, whether or not they hold a fellowship or an assistantship, are required to assist the graduate faculty in teaching and research activities as a component of their educational experience.