

Accreditation – Health Physics

The Master of Science (MS) program in Health Physics is seeking accreditation by the Applied & Natural Science Accreditation Commission (ANSAC) of Accreditation Board for Engineering and Technology (ABET), <http://www.abet.org>.

Student Outcomes

- Identify, formulate, and solve broad and diverse technical problems by applying knowledge of the sciences and mathematics to areas relevant to health physics. This is evaluated in the Certified Health Physicist exam preparation class, MHP 655, where students solve technical problems to prepare for the certification exam.
- Develop hypotheses, conduct experiments or data gathering to test hypotheses, analyze and interpret data, and apply scientific judgment to draw conclusions. This is evaluated in the two MHP research courses, MHP 650 and MHP 653, which guide students through best practices for conducting health physics-related research. Students then conduct their research under the mentorship of an MHP faculty member in MHP 699.
- Develop and implement key elements of a radiation safety program. This is taught and evaluated in MHP 645, Radiation Shielding and Protection, which requires students to develop a radiation safety plan for a hypothetical laboratory.
- Demonstrate the ability to work independently and on multi-disciplinary teams across cultural and socioeconomic divides. This is taught across all courses in MHP and is evaluated by our partner sites explicitly as part of the student practicum.
- Communicate effectively orally and in writing across a broad range of audiences. This is taught across all courses in MHP and is evaluated by our partner sites explicitly as part of the student practicum.
- Understand both ethical and professional responsibilities and the impact of technical solutions in global, economic, environmental, and societal contexts. This is taught across all courses in MHP and is evaluated by our partner sites explicitly as part of the student practicum.
- Recognize the importance of professional certification in health physics and the need to engage in life-long learning. This is taught across all courses in MHP and is evaluated by our partner sites explicitly as part of the student practicum. Further, all MHP students attend and present at the annual Health Physics Society meeting.

Educational Objectives

- **Professionalism.** To be successful in the professional realm, graduates will employ responsible teamwork, clear communication skills, effective project management capabilities, professional attitudes, and a clear understanding of the ethical issues faced by our profession. Graduates will engage in life-long learning and professional development, as demonstrated by participation in technical seminars, professional conferences and symposiums, discipline-specific training, and advancement in the professional certification process.
- **Problem-solving.** In their careers, graduates will integrate their technical knowledge, applied skills, and professional judgment to design and evaluate radiological systems considering safety, reliability, security, economics, and societal impact.
- **Community.** Graduates will contribute to the growth of their professional and scientific field, will provide for their own development and will contribute to the expansion and development of their

colleagues. They will do so while engaging the radiation safety and broader community in an inclusive and equitable manner.

- **Breadth.** Graduates will employ their broad technical knowledge in their careers. Graduates will identify, formulate, analyze, and solve radiological problems by applying fundamental and advanced scientific and technical knowledge coupled with applied skills. Breadth also includes a continuing awareness of contemporary issues, influences, and trends needed to understand the impact of radiological issues in global and societal contexts.