Nuclear Engineering

Program Description | Type | Degree
--- | --- | ---

Nuclear Engineering

ISU offers a B.S. degree in Nuclear Engineering and M.S. and Ph.D. degrees in Nuclear Science and Engineering. The field of nuclear engineering involves harnessing the energy of the atomic nucleus for many productive applications, such as electricity production in nuclear power plants and medical diagnostics and treatment using radiation from the nucleus. The B.S. degree coursework plan provides for development of a strong foundation in mathematics and the physical sciences in the first few semesters. Upon this foundation are built the key components of nuclear engineering: nuclear and radiation physics, radiation detection and measurement, reactor physics and kinetics, nuclear power production, and the nuclear fuel cycle.

The B.S. degree in nuclear engineering will prepare the student for work in industry, government, and university settings in areas such as nuclear facility operations and support, reactor design and development, radioactive waste management, and nuclear security and safeguards.

Accreditation

The Bachelor of Science (B.S.) program in Nuclear Engineering (NE) is accredited by the Engineering Accreditation Commission of ABET, [http://www.abet.org](http://www.abet.org). The Bachelor of Science (B.S.) and Master of Science (M.S.) programs in Health Physics are accredited by the Applied Sciences Accreditation Commission of ABET, [http://www.abet.org](http://www.abet.org). Students may enter the M.S. program in Health Physics from several undergraduate majors including health physics, physics, chemistry, biology, and other science or engineering majors. Additional course work to correct deficiencies may be necessary.

The Idaho State University Health Physics program is evaluated by periodically monitoring a series of programmatic outcomes that are used to indicate the extent to which our objectives are being accomplished and to provide information by which the program may be modified to optimize accomplishing these objectives.

Educational Objectives for the Degree Program in Nuclear Engineering

The objective of the Idaho State University Health Physics program is to produce Health Physicists with:

- Fundamental technical knowledge.
- Strong written and verbal communication skills.
- Well-developed professional judgment with the capability to think critically.
- Capability for solving applied health physics problems.
- The ability to work independently, and
- A thorough understanding of professional ethics.

Students earning either undergraduate degree in the Health Physics program must complete 8 of the 9 University General Education Objectives (a minimum of 36 credits - see the General Education Requirements ([http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/](http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/)) described in the Academic Information section of this catalog). Some of the courses listed as degree requirements will also satisfy or partially satisfy General Education Objectives, as noted.

Faculty ([http://coursecat.isu.edu/undergraduate/scienceengineering/nuclear-engineering/faculty/](http://coursecat.isu.edu/undergraduate/scienceengineering/nuclear-engineering/faculty/))

Nuclear Engineering (NE) Courses ([http://coursecat.isu.edu/undergraduate/allcourses/ne/](http://coursecat.isu.edu/undergraduate/allcourses/ne/))