The Department of Nuclear Engineering at Texas A&M University was established in 1957 and serves the nation and global community by nurturing nuclear engineering professionals to meet the complex challenges associated with the peaceful uses of nuclear energy and enhancing global security. The department is the largest program in the U.S. with a current enrollment of 297 undergraduate and 145 graduate students. The department’s graduate and undergraduate program is ranked second nationally among public universities, according to the U.S. News and World Report.

Our high faculty-to-student ratio allows us to offer relatively small class sizes and mentor groups that promote a strong sense of family within the department. There are many sources of financial assistance, including scholarships, fellowships and assistantships.

Research

The Department of Nuclear Engineering is involved in research across multiple areas of study, including reactor physics and computational science, nuclear security research, nuclear power engineering, nuclear materials, and health and medical physics.

Our department averages over $10 million in research expenditures per year and takes pride in maintaining experts in their respective fields. Students in our program conduct ground breaking research and can focus on areas such as nuclear fuels, solid/ion interactions, particle transport, large-scale scientific computing, materials and extreme environments, reactor safety, design of advanced nuclear reactors, thermal hydraulics, computational fluid mechanics, reactor kinetics and control, plutonium disposition, space nuclear power systems, radiation interactions with living tissue, dosimetry, and medical radionuclides.

Our research facilities include two research reactors, seven accelerators (including a unique microbeam device for determining the response to ionizing radiation on a cell-by-cell basis) and a high-energy pulsed plasma laboratory, in addition to a multitude of other laboratory resources.

A large faculty with diverse expertise, facilities that are second to none, and a history of strong support from college administrators and former students give us the tools needed to equip today’s students with the skills necessary for the wide-ranging applications of nuclear science and technology.
Research Impact

Research Expenditures

More than $12 million

Journal Articles: 67
Conference Papers: 52

Enrollment

Undergraduate (sophomore-senior): 297
Graduate:
- Master’s: 145
- Ph.D.: 97

Faculty

Tenure/Tenure Track: 16
- Full Professors: 8
- Associate Professors: 3
- Assistant Professors: 5
- Senior Lecturers: 2
- Professors of Practice: 2
- Research Personnel: 8
- Emeritus Faculty: 4

Facilities and Centers

- Accelerator Laboratory
- AGN-201M Nuclear Reactor Laboratory
- Computing Facilities
- Fuel Cycle and Materials Laboratory (FCML)
- Interphase Transport Phenomena Laboratory (ITP)
- Thermal-Hydraulic Research Laboratory
- Nuclear Heat Transfer Systems Laboratory
- Nuclear Science Center (1 MW Triga Reactor) (NSC)
- Radiation Detection Measurement Laboratory
- Systems Radiobiology Laboratory (TIPS Joint-Facility)
- Nuclear Power Plant Simulator Engineering Lab
- Center for Large-Scale Scientific Simulations (CLASS)
- The Cyclotron Institute
- Institute for National Security and Cybersecurity Education and Research (INSCER)
- National Center for Electron Beam Food Research
- Nuclear Power Institute (NPI)
- Center for Nuclear Security Science and Policy Institute (NSSPI)
- Radiological Engineering, Detection and Dosimetry (RED2) Laboratory
- Neutron Sensing Laboratory

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