

DEPARTMENT OF MECHANICAL AND NUCLEAR ENGINEERING

John Speich, Ph.D.

Professor and acting chair

[mechanical-and-nuclear.egr.vcu.edu \(https://egr.vcu.edu/departments/mechanical/\)](https://egr.vcu.edu/departments/mechanical/)

Mechanical engineering is one of the oldest and broadest engineering disciplines. Mechanical engineers design and analyze machines of all types including automobiles, airplanes, rockets, submarines, power generation systems, biomedical instrumentation, robots, manufacturing systems, household appliances and many, many more. In addition to well-known areas such as nuclear energy, nuclear propulsion and nuclear medicine, nuclear engineers are involved in many other applications of nuclear science and technology in fields as diverse as agriculture, industry, homeland security, forensics, environmental protection and even art. The Department of Mechanical and Nuclear Engineering provides quality graduate and undergraduate education through the following degree-granting programs:

- B.S. in Mechanical Engineering (general mechanical engineering curriculum)
- B.S. in Mechanical Engineering (nuclear engineering concentration)
- M.S. in Mechanical and Nuclear Engineering (thesis and non-thesis options, as well as online option)
- Ph.D. in Mechanical and Nuclear Engineering

Current areas of research within the department include but are not limited to energy conversion systems, smart materials, corrosion, medical devices, aerosol science, sensors, radiation detection and measurement, nuclear reactor design, robotics, fluid mechanics, nanotechnology, and biomechanics.

Students who complete the requirements for this degree will receive a Doctor of Philosophy in Mechanical and Nuclear Engineering.

- Mechanical and Nuclear Engineering, Doctor of Philosophy (Ph.D.) (<http://bulletin.vcu.edu/graduate/school-engineering/mechanical-nuclear-engineering/mechanical-nuclear-engineering-phd/>)

Students who complete the requirements for this degree will receive a Master of Science in Mechanical and Nuclear Engineering.

- Mechanical and Nuclear Engineering, Master of Science (M.S.) (<http://bulletin.vcu.edu/graduate/school-engineering/mechanical-nuclear-engineering/mechanical-nuclear-engineering-ms/>)