

MECHANICAL ENGINEERING

COLLEGE OF ENGINEERING AND SCIENCE



PROGRAM BEGAN FALL 2019 MAJOR

- Mechanical Engineering (BS)*

ACADEMIC CONTACT

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REVISED APRIL 2024

WHAT CAN I DO WITH A MECHANICAL ENGINEERING DEGREE?

Mechanical engineering deals with the design, testing, and manufacturing of various devices, tools, engines, machines, electromechanical units and systems. The field of mechanical engineering is very broad, ranging from machine design, manufacturing, materials, automation, and automotive engineering to thermal, fluid, and energy systems. The program is designed to provide students with the knowledge, skills and tools needed for them to pursue a successful career as a mechanical engineer. Mechanical engineers are typically employed in private sectors including manufacturing, automotive industry, power and energy industry, HVAC, medical and electronic sectors, and design and consulting firms. Mechanical engineers are playing an increasingly important role in maintaining the competitiveness of our nation in the global economy. Based on US Bureau of Labor Statistics (BLS) data, the jobs for mechanical engineers will increase by 2% from 2021 to 2031, indicating strong existing and continued demands for graduates. The median annual wage for mechanical engineers was \$99,510 in May 2023.

MECHANICAL ENGINEERING AT SRU

Mechanical engineering requires students to apply principles of engineering, basic sciences, and mathematics (including multivariate calculus and differential equations); to model, analyze, design, and realize physical systems, components or processes; and to work professionally in either thermal or mechanical systems. To be successful, students will be trained in problem-solving skills, math skills, creative design, leadership skills, and communication skills (both verbal and written). The program covers three focused areas of mechanical engineering, specifically mechanical design, manufacturing, and mechatronics. A capstone design course in the senior year will integrate all aspects of learning in team-based design projects assisted by professional engineers in the field. This is a four-year, full-time degree and all courses will be taught at SRU's main campus and is established to meet the workforce demand of mechanical engineers in western PA and the nation. The program is designed to meet the Engineering Accreditation Commission of Accreditation Board for Engineering and Technology (ABET) accreditation criteria.

WHY MECHANICAL ENGINEERING AT SRU?

1. A four-year, 128-credit program designed to meet ABET accreditation criteria
2. Small class sizes and hands-on engineering design experience
3. State-of-the-art lab facilities and internship opportunities
4. Most affordable engineering program in the region
5. SRU offers a year-long capstone design

CAREER OPPORTUNITIES

Mechanical engineering students enter the workforce directly after graduation in entry-level positions as a mechanical engineer in design, testing, and manufacturing of devices, tools, engines, and machines. Career options are broad and include:

- Manufacturing sectors
- Automotive industry
- Power and energy engineering
- Medical and electronic sectors
- Heating, ventilation, and air conditioning
- Engineering design firms