# What do Mechanical Engineers do?

Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of equipment such as centralized heat, gas, water, and steam systems.

#### **Work Content**

Analyze problems to see how mechanical and thermal devices might help solve a particular problem.

Research, design, evaluate, install, operate, or maintain mechanical products, equipment, systems or processes to meet requirements.

Design or redesign mechanical and thermal devices or subsystems, using analysis and computer-aided design.

Design power-producing machines, such as electric generators, internal combustion engines, and steam and gas turbines, as well as power-using machines, such as refrigeration and air-conditioning systems.

Develop, coordinate, or monitor all aspects of production, including selection of manufacturing methods, fabrication, or operation of product designs.

Confer with engineers or other personnel to implement operating procedures, resolve system malfunctions, or provide technical information

Median annual wage \*

\$97,415

Projected employment \*\*

2,756

Annual openings (Jobs)

176

### Places to work

Computer and Electronic Product Manufacturing

Scientific Research and Development Services

Architectural, Engineering, and Related Services

Fabricated Metal Product Manufacturing

#### **Career Cluster**



science, technology, engineering, and mathematics (STEM)

<sup>\*</sup> Wage estimates based on surveys conducted from November 2019 to May 2021

<sup>\*\*</sup> Projected Occupational Employment in 2030

# How do you become a Mechanical Engineer?

Mechanical Engineers at a minimum have a Bachelor of Science degree from a accredited program with an engineering curriculum. Mechanical engineering programs usually include courses in mathematics and life and physical sciences, as well as engineering and design.

A New Hampshire license is required for all types of engineering. In order to obtain a license as a Professional Engineer, four years of accumulated experience under the direction of a Licensed Professional Engineer is required. An examination of fundamentals of engineering is also a prerequisite.

# Interests (Holland Codes)



Investigative — Investigative occupations frequently involve working with ideas, and require an extensive amount of thinking. These occupations can involve searching for facts and figuring out problems mentally.

Realistic — Realistic occupations frequently involve work activities that include practical, handson problems and solutions. They often deal with plants, animals, and real-world materials like wood, tools, and machinery. Many of the occupations require working outside, and do not involve a lot of paperwork or working closely with others.

#### Work environment

Mechanical engineers generally work in offices. They may occasionally visit worksites where a problem or piece of equipment needs their personal attention. In most settings, they work with other engineers, engineering technicians, and other professionals as part of a team.

Most mechanical engineers work full time and some work more than 40 hours a week.

### Explore more: \*\*\*

Accreditation Board for Engineering and Technology (ABET), <a href="www.abet.org/">www.abet.org/</a>

\*\*\* Inclusion of this information is intended to provide a convenient resource for exploration, but does not constitutes an endorsement for any organization, nor is the list all-inclusive.

#### Source:

New Hampshire Employment Projections, base year 2020 to projected year 2030 New Hampshire Occupational Employment and Wages, May 2019 Occupational Outlook Handbook, Bureau of Labor Statistics





