Program Description

Mechanical Engineers research, develop, design, manufacture, and test tools, engines, machines, and other mechanical devices. They typically develop power-producing machines such as electric generators, internal combustion engines, steam and gas turbines, refrigeration and air-conditioning equipment, elevators and escalators, industrial production equipment, and robots used in manufacturing. In addition, mechanical engineers also design tools needed by other engineers to accomplish their work. As one of the broadest engineering disciplines, mechanical engineers may work in production operations in manufacturing or agriculture, maintenance, or technical sales; many are administrators or managers. Recently, the field of nanotechnology, which involves the creation of high-performance materials and components by integrating atoms and molecules, has introduced new principles to the mechanical design process.

Sample Occupations

- Mechanical Engineer
- Design Engineer
- Product Engineer
- Process Engineer
- Project Manager
- Design Maintenance Engineer
- Electromechanical Engineer
- Engineering Technician
- Engineering Technologist
- Robotics Technician
- Manufacturing Production Engineer

Sample Work Settings

- Federal Government
- Private Defense Contractors
- Architecture Firm
- Navigational Manufacturer
- Machinery Manufacturer
- Automotive Designers & Manufacturers
- Engineering Consulting Firm
- College or University
- Thermodynamics Companies
- Micro & Nanotechnology Firms
- Research & Development Dept.
- Navigational, Measuring, Electromedical, and Control Instruments Manufacturing

Job Search & Career Planning Resources

Use Career Center online resources (GWork, GoingGlobal, Vault)
Keywords: Engineering, Mechanical, Research & Development, Manufacturing

Job Search Sites

Engineering Jobs: www.engineerjobs.com
Engineer.net: www.engineer.net

Top Employers In This Field:


Professional Organizations

Tip: Join professional organizations to network and find out more about your field.

The American Society of Mechanical Engineers (ASME):
www.asme.org/

Institute of Transportation Engineers http://www.ite.org/

Society of Automotive Engineers http://www.sae.org/

International Human Powered Vehicle Association www.ihpva.org/

Society of Manufacturing Engineers http://www.sme.org/

National Association of Power Engineers
www.powerengineers.com/

American Society of Heating, Refrigerating, and Air-Conditioning Engineers www.ashrae.org

American Society of Naval Engineers www.navalengineers.org

Universal Association of Mechanical and Aeronautical engineers http://uamae.org/