

## **Mechanical Engineer**

Mechanical Engineers design, build and test mechanical and thermal devices including tools, engines and machines. Mechanical Engineering is one of the broadest fields in the discipline of engineering. It includes building and designing everything from small individual parts and devices to large systems. The role of a Mechanical Engineer is to take a product from idea to the market place.

### **Work Environment**

Mechanical engineering technicians assist with manufacturing processes in factories, or with development phases in research and development laboratories before manufacturing takes place.

### **How to Get Qualified**

Employers usually prefer candidates with an associate degree or other post-secondary training in mechanical engineering technology. If you are considering a job as a mechanical engineer it is advised that you take as many science courses as possible.

The job involves the use of chemistry and physics for the design, construction, use and maintenance of various mechanical systems. Colleges and universities around the world offer bachelor's degrees in mechanical engineering. In most cases, it takes a student four to five years to complete the coursework necessary to get the degree. Coursework usually involves rigorous work in statistics, dynamics, thermodynamics, drafting, instrumentation, and many other studies in the areas of science and design. Students are usually required to complete many engineering project during their time in college. Some students go on to pursue master's degrees in mechanical engineering or in related fields.

### **Job Outlook**

It is expected that employment of Mechanical Engineers will grow by 5 percent from 2012-2022, slower than average for most occupations. However, there should be increasing opportunities for those who can master new software technology as well as traditional manual skills. Many professions benefit from mechanical engineering as it involves manufacturing everything from automobile parts and equipment to robots and weapons. Despite the fact that it is among the oldest engineering disciplines, mechanical engineers are still researching new methods and materials to improve their field. One particular area of interest to mechanical engineers is nanotechnology, a discipline which attempts to apply microscopic particles to practical tasks.