

Employment Opportunities

Mechanical engineers work for industry designing systems and machinery that generate power, make products, move things and help in building. Some of the areas that mechanical engineers can go into are:

- **Automotive engineering:** Mechanical engineers design many car parts for the automobile industry. As an automotive engineer, you could solve transportation and safety problems by creating better and more efficient engines or by developing improved safety features
- **Biomedical engineering:** Mechanical engineers work with a variety of medical professionals to design mobility aids, prosthetics, and artificial organs.
- **Consulting:** Once mechanical engineers have gained significant on-the-job experience and developed a high level of expertise, they might choose to work for themselves as consultants or independent contractors. Here they can work on projects of their choosing for clients they respect. The consulting field offers opportunities in large and small engineering service firms and in private practice.
- **Heating, ventilation, and air conditioning (HVAC) engineering:** In this field, engineers design refrigeration systems for making frozen foods, or air-conditioning and heating systems for businesses and industrial buildings, residential homes, autos, hospitals, and schools.
- **Nuclear engineering:** The design of nuclear power plants requires the services of a mechanical engineer. The engineer must understand the fundamentals of nuclear design, know how to operate the plant efficiently, and evaluate the environmental factors associated with nuclear plants.
- **Robotics engineering:** A mechanical engineer may design machines that build other machines. For instance, a robotics engineer may be involved with creating the devices that are used in assembling automobiles. Engineers are concerned with the robot's structure, its joint mechanisms, bearings, and heat transfer characteristics.
- **Teaching:** A desire to help mold the next generation of engineers motivates some mechanical engineers to move into academic careers. Engineers in colleges oversee research activities, manage laboratories, and mentor students. They also write and publish books and technical papers about mechanical engineering.

Mechanical Engineer



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The
PROFESSIONALS



Mechanical Engineer

Be the best
MAKE A DIFFERENCE

Mechanical Engineer

A mechanical engineer designs, creates and improves systems and machinery that is used for domestic, public and industrial purposes. He possesses the following qualifications and credentials to practice this challenging profession which requires education and skills that span a broad range of technical, social, environmental, and economic problems.

- Has completed his Bachelor of Science degree in Mechanical Engineering in a CHED-accredited university or college.
- The categories of licenses granted in Mechanical Engineering are:
 - Professional Mechanical Engineer (PME)
 1. A licensed Mechanical Engineer with special practice based on his field of experience within the scope of mechanical engineering
 2. Minimum practice of four (4) years in his profession
 - Mechanical Engineer (ME)
 - He has passed the Mechanical Engineering Licensure Examination administered by the Professional Regulation Commission (PRC).

These licenses grant the individual the competency required to enter the mechanical engineering profession.

Functions

- Accepting and internalizing mechanical science like the relationship between forces and motion, such as dealing with vibration, automatic control and thermodynamics. Also dealing with the relations among the various forms of heat, energy, and power; fluid flow; heat transfer; lubrication; and properties of materials

- Implementing research, design, and development
- Production of products and power, which includes planning, operations, and maintenance
- Coordinating function of the mechanical engineer involving management, consulting, and marketing.

Skills and Competencies

- A mechanical engineer is involved in consultation, valuation, investigation and management works. This requires thorough mechanical engineering knowledge that will enable him to fully and satisfactorily complete these range of services.
- He must be able to design, prepare, specify and project studies and estimates for mechanical equipment, machinery, or processes of any mechanical works, projects or plants.
- He must be competent in the management or supervision of the erection, installation, alteration, testing and commissioning of mechanical equipment, machinery, or processes in mechanical works, projects or plants.
- He must possess the skills in management, supervision, operation, tending or maintenance of any mechanical equipment, machinery or processes in mechanical work, projects or plants.
- He must have the technical expertise to manage or supervise the manufacture, sale, supply or distribution of mechanical equipment parts or components.

Physical Attributes and Characteristics

- Above-average mathematical skills
- Analytical ability
- Decisive and responsible
- Good communication skills, both oral and written
- Good interpersonal skills

Course Description

The Mechanical Engineering course is a five-year program that comprises of general education subjects and professional courses that will cover specialized subjects such as Machine Design, Materials and Shop Practice, Industrial Power Plant Engineering, Mathematics, Engineering Economics, and Basic Engineering Science.

Cost of Education

The cost of education in the five-year Mechanical Engineering ranges from P10,000 to P60,000 per semester or from P20,000 to P120,000 per year depending on the college or university one is enrolled in

Career Outlook

Mechanical Engineering finds application in all fields of technology. As such, it ranks no. 4 in the Top 10 in-demand jobs in the country as reported by the National Statistical Coordination Board (NSCB) in 2013.

Qualified PMEs, MEs and CPMs are in demand virtually in all industries so the outlook is bright for Mechanical Engineers both locally and internationally.