

What is Mechanical Engineering?

Mechanical engineering is one of the broadest and oldest of all the engineering disciplines. Mechanical engineers are involved with almost every aspect of our lives, innovating and designing machines from computers to power generators to medical equipment. Mechanical engineering offers graduates a huge variety of career paths across a wide range of industries including aeronautics, motor car and engine development, transport systems, entertainment, electronics, medical and information technology.

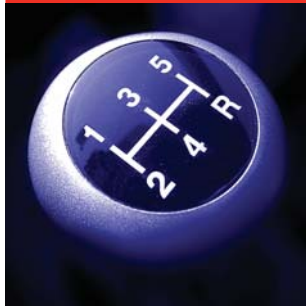
What do Mechanical Engineers do?

Mechanical engineers create and design state-of-the-art machines and technologies by combining the principles of energy, materials and mechanics. They are the innovators and creators of processes that drive technology and industry. They are one of the main developers of new innovations such as faster car engines and the emerging fields of nanotechnology and biotechnology. Mechanical engineers are responsible for the development of robots, machines, and energy producing turbines, to name but a few.



Mechanical engineering allows the student to specialise in a variety of areas:

- **Transportation and automotive design:** working to replace and improve existing modes of air, water and surface transportation.
- **Energy systems:** developing methods for converting, transporting and processing existing energy sources; and developing new forms of energy production.
- **Mechatronics** – the use of electrical/electronic engineering in mechanical systems.
- **Manufacturing:** designing and manufacturing machine tools and equipment using the latest technologies in automation and robotics.
- **CAD:** use computer-aided drawing to assist in design application.





Career Opportunities

There are a whole host of career opportunities for mechanical engineering graduates. As a mechanical engineer, technologist or technician, you can work for:

- **Industry:** innovating, creating and testing designs for new technologies.
- **Government:** product testing and establishing safety standards.
- **Consultancy:** carrying out studies about possible changes or improvements and estimating costs of products for clients.
- **Research Centres:** carry out research in the use of different types of fuel and energy, materials handling, heating and cooling processes, the storage and pumping of liquids and gases and environmental controls.



Did you know?
An Irish mechanical engineer, John P. Holland of Co Clare, designed the first successful submarine - The Fenian Ram.

Engineering provides a host of exciting opportunities for individual enterprise and job flexibility with rapid progress to creative, responsible and financially rewarding careers. For more information look up www.steps.ie

Aeronautical
Biomedical
Biosystems, Agriculture & Food
Building Services
Chemical Engineering
Civil Engineering
Computer & Software Engineering
Electrical Engineering
Electronic Engineering
Industrial & Manufacturing

MECHANICAL ENGINEERING ▶	CAD
	Energy Systems
	Manufacturing
	Mechatronics
	Transportation & Automotive

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As a mechanical engineering graduate you can:

- Develop new materials that can withstand the extreme temperatures of aircraft gas turbine engines.
- Design the next car to win the Formula One Championships.

Employers of mechanical engineering graduates include:

Glen Dimplex, Irish Rail, ESB, Aer Lingus, Siemens, Intel, IBM, or DePuy Johnson and Johnson to name but a few.



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