



Engineering

BRinging STEM into Active agINg – BRAIN Erasmus+ 2020-1-PL01-KA204-081805 Partner name: Horizont ProConsult



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What is Engineering?

Engineering is **the application of science and maths to solve problems**. While scientists and inventors come up with innovations, it is engineers who apply these discoveries to the real world.









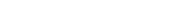




Electrical Chemical Aerospace Environmental System Civil Mechanical



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Electrical Engineering

Electrical engineering is an engineering discipline concerned with the study, design, and application of equipment, devices, and systems which use electricity, electronics, and electromagnetism. Electrical engineering has now subdivided into a wide range of subfields including electronics, digital computers, computer engineering, power engineering, telecommunications, control systems, robotics, radiofrequency engineering, signal processing, instrumentation, and microelectronics.









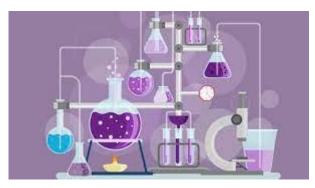








Chemical Engineering



Chemical engineering is an engineering field which deals with the study of operation and design of chemical plants as well as methods of improving production. Chemical engineers develop economical commercial processes to convert raw materials into useful products.

It is a broad field that encompasses many subfields, including biotechnology, nanotechnology, mineral processing, ceramics, fluid dynamics, environmental science, materials science and thermodynamics.













Biomedical Engineering

Biomedical engineering or medical engineering is the application of engineering principles and design concepts to medicine and biology for healthcare purposes. BME is also traditionally logical sciences to advance health care treatment, including diagnosis, monitoring, and therapy.

















Civil Engineering



Civil engineering is a professional engineering discipline that deals with the design, construction, and maintenance of the physical and naturally built environment, including public works such as roads, bridges, canals, dams, airports, sewage systems, pipelines, structural components of buildings, and railways.















Mechanical Engineering



Mechanical engineering is an engineering branch that combines engineering physics and mathematics principles with materials science, to design, analyze, manufacture, and maintain mechanical systems. It is one of the oldest and broadest of the engineering branches.

The mechanical engineering field requires an understanding of core areas including mechanics, dynamics, thermodynamics, materials science, structural analysis, and electricity.











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Aerospace Engineering

Aerospace engineering is the primary field of engineering concerned with the development of aircraft and spacecraft. It has two major and overlapping branches: aeronautical engineering and astronautical engineering. Avionics engineering is similar, but deals with the electronics side of aerospace engineering.













Do you want to know more?



Videos:

- What is Engineering?
- Overall Engineering
- <u>Chemical Engineering</u>
- Electrical Engineering
- Biomedical & Industrial Engineering
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