



# What can an engineer do for you?

Starting from the time you get up in the morning until the time you go to bed, everything you do involves engineering. The switch that produces light as well as the automobiles and highways that enable us to move people and goods from place to place are some examples of engineering, which touch every part of our day-to-day lives.

**Engineers** are innovators and problem solvers, applying math and science to real world problems. They help to make the world a better place to live. Designing systems for drinking water, dealing with pollution and making roads and bridges for transportation needs are only a few types of engineering.

**Engineers** are the key link between ideas and reality. They are a part of a profession that is sure to provide a bright future as well as a challenging career.

The engineering field offers a rewarding career with immense job opportunities and the chance to contribute to society in a positive way.



Simon Kenton Memorial Bridge-Maysville, KY  
Historic suspension bridge built in 1931

## Have you ever wondered?

How tall buildings are designed and built so they don't fall down?

Where your drinking water comes from before it gets to the faucet?

How roads and bridges are constructed and why are they able to carry so many big trucks and cars?

How a bicycle works?



## What type of engineer are you?

**AGRICULTURAL** Develop new efficient ways to produce crops and livestock. They face the challenges of feeding a growing population with an ever increasing demand on our land and environment.

**CIVIL** A profession dating back as far as the Egyptian pyramids. These engineers design and construct projects like roads, bridges, buildings, water supply and waste treatment facilities.

**MINING** Develop safe and efficient methods of extracting minerals such as coal, oil, diamonds, and gold from the earth. Mining engineers help anticipate our future energy needs and create new ways to handle them.

**MECHANICAL** Develop machines and mechanical devices that use or produce power. They make our lives more enjoyable and comfortable by designing transportation systems, robotics, heating systems and refrigerators.

**CHEMICAL** Develop ways to make and handle chemicals and their compounds used for many purposes. They test products which can address problems such as hunger, pollution and disease.

**ELECTRICAL** Design and develop electrical and electronic motors and devices ranging from the electric can opener to the computer to the power plant. They devise the components that run traffic control devices, radios, televisions and space crafts.

## Other Types of Engineering

Aeronautical	Geological	Nuclear	Textile
Architectural	Geophysical	Physical	Petroleum
Biomedical	Industrial	Metallurgical	Sanitary
Engineering Science	Military	Space	Computer

# Is Engineering for you?

Want a challenging career?

Do you like science?

Are you a good student?

Do you want to go to college?

Try Engineering you will have a bright future!

Think About It!



## How do I become an Engineer?

To be a licensed professional engineer, (P.E.), you must have a degree from an engineering college, much like a doctor must be an M.D. to practice medicine. The key to engineering is proper high school and college preparation.

### RECOMMENDED HIGH SCHOOL COURSE WORK TO PREPARE FOR COLLEGE ENGINEERING

SUBJECT	YEARS
English	4
Algebra	2
Geometry	1
Analytical Geometry	1/2
Trigonometry	1/2
Pre-Calculus	1
Biology	1
Physical Sciences	1
Chemistry	1
Physics	1
Social Studies	2
Computer Science	1

It is projected that many new jobs in engineering will be required in the future. Those who become involved in engineering today will have an increased job market when they finish school. They will also have the opportunity for a great career which provides challenges every day.

<http://transportation.ky.gov/Education/Pages/KEEN.aspx>

Turning Ideas and Technology into Reality

# ENGINEERING

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