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CAREER PATH RESOURCES**

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IS ENGINEERING FOR ME?

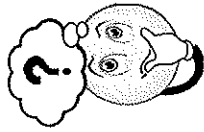
Engineering is a career with many fields. However, there are some key characteristics that are common to engineering and to those who choose engineering as a career.

Most engineers like to analyze and find solutions for problems that will improve products or services.



YOU MAY WANT TO ASK YOURSELF.....

- Am I interested in improving the environment?
- Am I good at problem solving?
- Am I interested in helping people live better?



- Do I like spending hours fixing or making something work, long after everyone else has given up?
- Do I ever look at a product and start thinking of ideas on how to make that product better?
- Do I enjoy trying to figure out how machines, bikes, radios or the human body work?

If have you answered yes to any of these questions, then you may want to review the engineering career path and see if it's right for you.

**ENGINEERING
AS A
CAREER**



**GEAR UP FOR ONE OF THE
BEST-PAYING JOBS
UPON GRADUATION.**

AN ENGINEERING DEGREE
OPENS THE DOOR
TO AN EXCITING
AND CREATIVE CAREER.

This brochure was produced by:

NORTHROP GRUMMAN

Building Partnerships for
Stronger Communities

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WHAT IS ENGINEERING?

Engineering in its simplest form is a way of solving problems. Engineering is the field of applying science and mathematics to develop solutions that have a practical end. Engineers design & manufacture products and processes that improve our lives.

In a sense, engineers are inventors. They dream up ideas and make them a reality for the rest of us. By utilizing science and math, they improve the quality of life for society. Engineering is a highly rewarding career for creative and innovative individuals around the world. And as you can imagine, there is a great deal of prestige involved with being an engineer.

Since engineers are often responsible for directly creating a new product or service, they are in high demand in the corporate world and command fairly high salaries.

WHAT DO ENGINEERS DO?

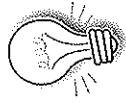
- Design, plan, & supervise the construction of products and services
- Develop and implement improved ways to extract, process, and use raw materials
- Develop new materials that both improve the performance of products and take advantage of the advances in technology
- Analyze the impact of the products they develop or the systems they design on the environment and on people using them



COOL ENGINEERING CAREERS

Electrical Engineering:

Design, develop, test & supervise the production of electrical equipment, including computers, machines, aircraft, radars and navigation systems.



Mechanical Engineering:

Research, develop, design, manufacture and test tools, engines, machines and other mechanical devices, including electric generators, internal combustions, turbines, industrial production, and robots in manufacturing.



Computer Engineering:

Research, design, develop and test computer programs and supervise its manufacture and installation.



Aerospace Engineering:

Design commercial airplanes & military fighter jets, space telescopes and satellites. They also develop sports equipment such as golf balls & tennis rackets that require good aerodynamics.



Environmental Engineering:

Protect fragile resources of our planet. They translate physical, chemical & biological processes into systems that destroy toxic substances, remove pollutants & eliminate contaminants from the air.



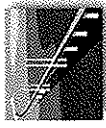
Structural Engineering:

Analyze & design sports stadiums, roller coasters, high-rise office buildings & homes to ensure that the structures can support their own weight & resist environmental forces like hurricanes, earthquakes, blizzards and floods.



Biomedical Engineering:

Develop lifesaving technologies & devices related to health care, including medical diagnostic machines, medical instruments, artificial organs and limbs.



Civil Engineering:

Help our cities & towns function through the design of airports, highways, bridges, water treatment centers and sanitation plants. They also design transit systems that allow people to move safely and efficiently.



Materials Engineering:

Your job might be to create shock-absorbent material for a marathon running shoe, enhance the handling ability of skis and snow boards with more flexible materials, invent clothing that repels mosquitoes, or identify steel beams capable of bearing the tremendous weight of a bridge.

DID YOU KNOW ...

- Civil engineers use foam walls to give the Indy 500 Speedway safer curves.
- Computer science engineers are working on robots that are so tiny, that they can fit inside the human body.
- Chemical engineers have developed a spray-on skin product that soldiers can use if they are wounded far from medical help.
- Electrical engineers make it possible for us to talk on the telephone, watch TV and go online - all at the same time.

