

NATURE OF WORK

Engineers are the link between what is needed in society and the creation of products. Depending on their field of study, an engineer may design and develop things from roads and transportation systems; to ways to use raw materials such as petroleum for use in household products and manufacturing. Engineers use computers to simulate and test how their new idea might look in operation. They use the Internet to collaborate with other engineers around the country or even overseas. Engineers must consider many things when developing a new product, from the availability of resources, to safety, cost and the impact on the environment. Engineers use theories and principles of science and mathematics in research to develop economical solutions to technical problems. The electrical, mechanical and civil engineering fields are the most popular specialties, but engineers can be found in a wide variety of career areas.

WORKING CONDITIONS

Most engineers work in office buildings, laboratories or industrial plants. Some may travel to different plants or work sites. Engineers work 40 hours a week, but deadlines may require them to work additional hours.

TRAINING & QUALIFICATIONS

A bachelor's degree in engineering is required for almost all entry-level engineering positions. Occasionally college graduates with a degree in physical science or mathematics may qualify for some engineering positions. Most college programs involve a concentration of study in an engineering specialty, along with courses in both mathematics and science. Engineers trained in one area may work in related branches to help companies fill their engineering need. This practice helps engineers who want to look for employment in different areas. Since the world is constantly changing, it is important for engineers to continue their education, even after employment. Those who don't will have a difficult time trying to advance.

OUTLOOK

Overall employment for engineers is expected to grow about as fast as average for all occupations. The biomedical engineering field, however, will increase the fastest.

CAREER OPTIONS

Engineer

ESTIMATED SALARY RANGE

with a bachelor's degree

Nationally— \$52,048—\$83,121
(depending on specialty and location)

RELATED OCCUPATIONS

Architect, engineering managers, geoscientists, computer programmers, mathematicians, drafters, engineering sales, chemists, physicists, astronomers

SJC Basic Program Information

Students must have a minimum 2.0 grade point average and may not receive a grade of "D" or "F" in any of the courses required for transfer. Students intending to transfer to a bachelor degree granting institution are strongly encouraged to check with their advisor and carefully coordinate their course work at San Juan College with the requirements at the transfer institution.



For further information go to:

www.sanjuancollege.edu/pages/158.asp

Click on AS link under Transfer Programs

www.bls.gov/oco/ocos027.htm

(Also see: ocos009; ocos112)

www.embs.org/

