

Florida Institute of Technology– Career Management Services

Career Profile: Aerospace Engineering

Engineers develop new products, and during the process, they consider several factors. In addition to their involvement in design and development, many engineers work in testing, production, or maintenance. These engineers supervise production in factories, determine the causes of component's failure, and test manufactured products to maintain quality.



Aerospace engineers design, test, and supervise the manufacture of aircraft, spacecraft, and missiles. Those who work with aircraft are called aeronautical engineers, and those working specifically with spacecraft are astronautical engineers. Aerospace engineers develop new technologies for use in aviation, defense systems, and space exploration, often specializing in areas such as structural design, guidance, navigation and control, instrumentation and communication, and production methods. They also may specialize in a particular type of aerospace product, such as commercial aircraft, military fighter jets, helicopters, spacecraft, or missiles and rockets, and may become experts in aerodynamics, thermodynamics, celestial mechanics, propulsion, acoustics, or guidance and control systems.

Most engineers work office buildings, laboratories, or industrial plants. Others may spend time outdoors at construction sites and oil and gas exploration and production sites, where they monitor or direct operations or solve onsite problems. Some engineers travel extensively to plants or worksites here and abroad. Many engineers work a standard 40-hour week. At times, deadlines or design standards may bring extra pressure to a job, requiring engineers to work longer hours.

A bachelor's degree in engineering is required for almost all entry-level engineering jobs. College graduates with a degree in a natural science or mathematics occasionally may qualify for some engineering jobs, especially in specialties that are in high demand. However, engineers trained in one branch may work in related branches. For example, many aerospace engineers have training in mechanical engineering. This flexibility allows employers to meet staffing needs in new technologies and specialties in which engineers may be in short supply. It also allows engineers to shift to fields with better employment prospects or to those which more closely match their interests.

The median annual wage of aerospace engineers was \$97,480 in May 2010. The median wage is the wage at which half of the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$60,620, and the top 10 percent earned more than \$143,360.

For more information on aerospace engineering contact the Career Management Services Office or your academic advisor.

Sources: National Association of Colleges and Employers Salary Survey: January 2012
Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2012-13 Edition



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