ABOUT A DEGREE IN AEROSPACE ENGINEERING

Aerospace Engineers develop extraordinary machines, from airplanes that weigh over half a million pounds to spacecraft that travel over 17,000 miles an hour. They design, develop and test aircraft, and missiles as well as oversee manufacturing. They are usually categorized as either Aeronautical Engineers, who work with aircraft, or Astronautical Engineers, who work with spacecraft.

Aerospace Engineers typically do the following:

- Assess proposals for projects to determine if they are technically and financially feasible
- Determine if proposed projects will result in safe aircraft and parts
- Evaluate designs to see that the products meet engineering principles, customer requirements, and environmental challenges
- Develop acceptance criteria for design methods, quality standards, sustainment after delivery, and completion dates
- Ensure projects meet quality standards
- Inspect malfunctioning or damaged products to identify sources of problems and possible solutions

Aerospace Engineers specialize in areas such as aerodynamic fluid flow, structural design, guidance, navigation and control; instrumentation and communication; robotics; and propulsion and combustion. They develop new technologies for use in aviation, defense systems, and space exploration. Aerospace engineers may be skilled in areas such as aerodynamics, thermodynamics, celestial mechanics, propulsion, acoustics, or guidance and control systems.

HIRING INSTITUTIONS

Aircraft and Spacecraft Manufacturers
Air Transport Carriers
Government
Educational Institutions
Research Institutions
Commercial Airlines

RELATED SKILLS

Capacity for detail
Analytical ability
Strong communication skills
Mechanical aptitude
Makes sound decisions to solve quantitative problems
Creative thinking
Teamwork