NASA Careers

From coordinating scientific research on the International Space Station and designing next-generation space transportations systems, to telling the story of space exploration and managing agency finances, NASA has career possibilities for people with many different skills. The Lyndon B. Johnson Space Center, along with NASA’s nine other centers throughout the country, provides career opportunities to people from strong academic backgrounds with interest in the nation’s space program.

Aerospace technology positions at NASA, such as those in engineering and science fields, cross traditional academic disciplines because the agency pushes the envelope of exploration. For example, in Johnson Space Center’s Engineering Directorate, the job may require a combination of talents in such areas as automation and robotics, fluid and flight mechanics, materials and structures, propulsion and power systems, flight systems, measurement and instrumentation systems, data systems, and experimental facilities and equipment. To qualify, an applicant should hold a bachelor’s degree in an engineering discipline.

Other positions include space sciences and life sciences and systems. Within these disciplines, specializations such as meteorology, ionospherics, lunar and planetary studies, radiation fields and particles and meteoroid studies, psychological and physiological studies, microbiology, hematology, neurobiology, botany, exobiology, biochemistry, radiobiology and interactions between human and machine systems require certain educational achievements. In the life sciences, a master’s degree and/or doctorate degree is highly desirable.

The space program also employs a slate of mission and administrative support personnel in human resources, information technology, financial management, public information, and procurement. Support personnel help ensure that NASA conducts the business of space exploration in effective and efficient ways.

Many positions are filled through the Cooperative Education Program: http://coop.jsc.nasa.gov/. Other positions are filled through vacancy announcements. Most schools have a career guidance counseling program designed to help students select a career and formulate the educational schedule needed to reach the goal. Students who consider working at NASA in a technical discipline are also encouraged to contact their choice of accredited universities to determine whether they offer instruction in the aerospace field.

Astronauts

Although NASA employs individuals from a wide variety of backgrounds in a range of career fields, many ask what it takes to become an astronaut. The answer depends on where you are now and where you want to go. NASA selects astronauts from a diverse pool of applications with a wide variety of skills and academic backgrounds. From the thousands of applications received, only a few are chosen for the intensive Astronaut Candidate training program. Twenty-first century astronauts will help lead NASA through the next steps as we push the boundaries of exploration and move beyond low Earth orbit. Using the International Space Station as a stepping stone, NASA will prepare for longer journeys to an asteroid, Mars and beyond. Both civilian and military personnel are considered for the program. More in-depth information about the requirements and application process can be obtained at http://astronauts.nasa.gov.
Career Opportunities

Johnson Space Center employs thousands of individuals in a variety of disciplines.

- **Astrophysicists** study objects in the universe, including galaxies and stars to understand what they are made of, their surface features, their histories and how they were formed. To study these bodies, Astrophysicists often come up with new tools and ways to investigate them.

- **Biologists** study living things and their relationship to their environment. Most biologists work in research and development. At NASA, Biologists often research how space environments affect living things, how to support life in space and how life began and changed over time.

- **Computer Engineers** design and develop computers or robots. When designing a new product, engineers first figure out what it needs to do. They then design and test the parts, fit the parts together, and test to see how successful it is.

- **Geologists, Geophysicists, and Geochemists** explore the Earth’s evolution, its structures, the way it works, and the way its resources are used. They also examine interactions with chemical and biological factors.

- **Materials Engineers** develop and tests new types of metallic and non-metallic materials for use in aerospace systems and vehicles. When making a new material, Materials Engineers select materials with the structure and features needed for a given purpose.

- **Software Engineers** write the software that is used in automated systems. Automated systems help people do their jobs by providing them with information, giving them advice, performing repetitive tasks or in some cases, by controlling actual systems.

- **Theoretical Mathematicians** come up with new mathematical rules and processes using the latest technology. Applied Mathematicians use math rules and processes to solve scientific, engineering and business problems. These problems might include studying and designing computer models that help to create faster and higher aerospace vehicles and systems.

- **Educators** design programs for students and curricula for teachers to help share the wonders of exploration with future generations of engineers and scientists who will solve important problems on Earth and in space.

- **Human Resources** personnel enable NASA to achieve its strategic objectives by ensuring that the agency has a committed and capable workforce in place where and when it is needed.

- **Budget and program analysts** assist in the planning, budgeting and execution process, while procurement officers provide functional management, leadership and policy direction of procurement and financial assistance activities.