NASA Careers

Astronaut jobs are very scarce, but other equally important and rewarding positions are available in the human spaceflight program and they all call for good education, strong experience or both. Individuals considering a career with the Lyndon B. Johnson Space Center, or with any of the other NASA centers, should ascertain what level of education is required for their chosen career and attain that level.

Many jobs in the aerospace industry are common in other businesses: personnel specialists, accountants, labor relations specialists, secretaries and the like, while others are unique. NASA refers to its jobs in the engineering and scientific fields as aerospace technology positions.

Aerospace technology positions cross traditional academic disciplines because NASA work is not channeled in the usual manner. The job may require a combination of talents: mechanical and electronic engineering, for example.

Because of the uniqueness of the work being done, new occupations and related terminology have been created. A majority of the occupations at the Lyndon B. Johnson Space Center are in the engineering field.

Some major types of engineering positions are in the areas of 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. A lesser number of positions include space sciences (including such specializations as meteorology, ionospherics, lunar and planetary studies, radiation fields and particles and meteoroid studies) and life sciences and systems, the study of living processes (i.e., psychological and physiological studies, microbiology, hematology, neurobiology, botany, exobiology, biochemistry, radiobiology and interactions between human and machine systems).

All of the engineering and scientific positions under the broad term “aerospace technology” require certain educational achievements. That is, to qualify, an applicant should hold a bachelor’s degree in disciplines of engineering, mathematics and the physical and biological sciences. In the life sciences, a master’s degree and/or doctorate degree is highly desirable.

Administrative positions in areas such as personnel, financial and budget management, public information, procurement and contracts are often filled through the cooperative education program or through vacancy announcements.

Most schools have a career guidance counseling program designed to help the student select a career and formulate the educational schedule needed to reach the goal. Students are also encouraged to contact their choice of accredited universities to determine whether they offer instruction in the aerospace field.
For all the diversity of NASA's workforce, the question “How can I become an astronaut?” is very common. The answer depends on where you are now and where you want to go. Former astronaut Dr. Sally K. Ride has these suggestions for you:

“The most important steps that I followed were studying math and science in school. I was always interested in physics and astronomy and chemistry, and I continued to study those subjects through high school and college on into graduate school. That's what prepared me for being an astronaut; it actually gave me the qualifications to be selected to be an astronaut. I think the advice that I would give to any kids who want to be astronauts is to make sure that they realize that NASA is looking for people with a whole variety of backgrounds: they are looking for medical doctors, microbiologists, geologists, physicists, electrical engineers. So find something that you really like and then pursue it as far as you can and NASA is apt to be interested in that profession.”

Astronaut Selection

NASA selects astronauts from a diverse pool of applicants with a wide variety of backgrounds. From the thousands of applications received, only a few are chosen for the intensive Astronaut Candidate training program. Including the “Original Seven,” only 321 astronauts have been selected to date.

The astronauts of the 21st century will help lead NASA through the next steps of its Vision for Space Exploration as we explore the moon, Mars and beyond. The Vision for Space Exploration is a stepping-stone strategy toward new exploration goals. Using the International Space Station to study human endurance in space and to test new technologies and techniques, NASA will prepare for the longer journeys to the moon, Mars and beyond.

NASA accepts applications for the Astronaut Candidate Program on a continuous basis. Candidates are selected as needed. Both civilian and military personnel are considered for the program. Civilians may apply at any time. Military personnel must apply through their parent service and be nominated by their service to NASA. More in-depth information about the requirements and application process can be obtained at http://astronauts.nasa.gov/ or by writing to the Astronaut Selection Office, Johnson Space Center, 2101 NASA Parkway, Houston, TX 77058-3696.

Frequently Asked Questions

What is the best degree field to choose?
Among the academic fields considered qualifying for Astronaut Candidate positions, we would not recommend one over another or specify which might be more appropriate in the future. You should choose a field of study that is of interest to you; this will ensure that, whatever course your career takes, you will be prepared to do something that is personally satisfying. You can obtain information on the backgrounds of current and past astronauts at the following Web site: http://www.jsc.nasa.gov/Bios/

Are there age restrictions?
There are no age restrictions for the program. Astronaut candidates selected in the past have ranged between the ages of 26 and 46, with the average age being 34.

Do you have to be a U.S. citizen to apply for the Astronaut Candidate Program?
Yes, you must be a U.S. citizen to apply for the program through NASA. It is not recommended that you change your citizenship solely for the purpose of being eligible for the Astronaut Candidate Program. For information about other space agencies, visit http://www.hq.nasa.gov/office/codei/f_orgs.html

What is the best college or university to attend?
NASA cannot recommend one college or university over another, or specify which schools might best prepare an individual for the Astronaut Candidate Program. However, please remember that the college or university you attend must be an accredited institution.

Is flying experience necessary?
Although flying experience is only a requirement for the Pilot Astronaut Candidate, it is also beneficial for the Mission Specialist Astronaut Candidate. The Pilots selected have had military pilot training. The Mission Specialists with flying experience have attained it either in the military or through private lessons.

Will NASA send a child into space?
While NASA appreciates the enthusiasm young people have shown in wanting to take part in the Space Program, there are no plans at this time to send children into space. Maybe one day this will be possible, but it will most likely be far in the future when space travel becomes an everyday occurrence.

NASA has many programs that allow children to become involved with NASA and learn more about space. Information on these programs is available at: http://www.nasa.gov/audience/forkids/home/index.html or http://education.nasa.gov/

For more information about NASA, visit www.nasa.gov

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