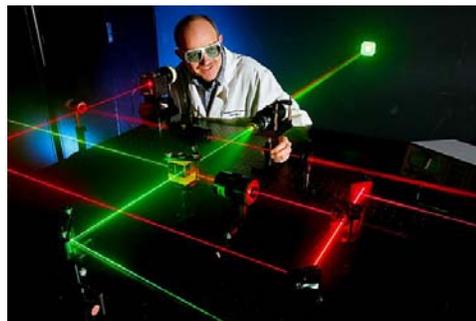


JOB DESCRIPTION: Physicist - Astronomer

A Career in Astronomy or Astro-Engineering

Definition and Nature of the Work

Astronomers are sometimes called astrophysicists. They use the laws of physics and mathematics to learn about the nature of matter and energy throughout the universe, which includes the sun, moon, planets, stars, and galaxies. In addition, astronomers apply their knowledge to solve problems in navigation, space flight, and satellite communications. They also develop the instruments and techniques needed to observe and collect astronomical data.



Many astronomers work in colleges and universities where they do research and teach astronomy. Some work in observatories, planetariums, and museums where they help to explain what is known about the universe to the public. Others are employed by government agencies, such as the U.S. Naval Observatory or the National Aeronautics and Space Administration (NASA). A few work for companies in the aerospace industry.

Some astronomers primarily gather and analyze large quantities of data from observatories and satellites. They usually only spend a few weeks each year making observations with telescopes. For many years, satellites and other kinds of space-based instruments have greatly expanded the range of observation for astronomers. Most recently, new computer and telescope technologies are leading to a resurgence in ground-based observation techniques.

Astronomers must first decide which objects to observe and the methods and equipment to use. They may go to an observatory at a scheduled time and make and record their observations, or they may have assistants gather the data. Astronomers then analyze these observations, put them into numerical form, and if possible, explain those using existing hypotheses or theories.

Other astronomers spend most of their time working on new hypotheses, theories, or mathematical models. They often use computers to help them do the many calculations required to develop complex hypotheses about space. Such hypotheses may help explain some of the observations made by other astronomers. Astronomers often specialize in one area, such as the sun, the solar system, or in the development of instruments and techniques. Their recent findings have included quasars, pulsars, black holes, and other mysterious phenomena in the far reaches of space.



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Links to more Information click below:

<http://careers.stateuniversity.com/pages/386/Astronomer.html#ixzz1RRCLCszf>

- [Astronomy for Beginners](#)
- [Fun Facts About Astronomy](#)
- [Famous Astronomers](#)

<http://www.bls.gov/oco/ocos052.htm>



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