

WHAT CAN I DO WITH A MAJOR IN ...

PHYSICS

OCCUPATIONAL OVERVIEW:

Conduct research in fundamental mathematics or in application of mathematical techniques to science, management, and other fields. Solve or direct solutions to problems in various fields by mathematical methods.

EMPLOYMENT REQUIREMENTS:

[Extensive Job Preparation Needed]

A bachelor's degree is the minimum formal education required. However, many employers also require graduate school. For example, they may require a master's degree, and some require a Ph.D., M.D., or J.D. (law degree).

EMPLOYERS & SUGGESTED STRATEGY:

Please ask your Career Advisor (CDF) for identifying employers or additional resources for your occupation of choice.

Astrophysics: Airports - Colleges and universities - Commercial industry - Government laboratories - Military - National Aeronautics and Space Administration (NASA) - Observatories - Planetariums - Research centers - Space industry

Suggested Strategy: Obtain experience through part-time or voluntary position in a planetarium, observatory or science museum. Complete an internship with a research organization or related industry. Participate in research with scholars in the field. Contact the American Astronomical Society for more information.

Technical: Atomic and nuclear labs - Engineering firms - Government agencies e.g., Department of Commerce, Department of Defense - Government laboratories - Hospitals - Manufacturing and processing firms - Mining and petroleum companies - Professional and technical journals - Research and development firms - Television and radio stations - Weather bureaus

Suggested Strategy: Gain experience through internships or co-ops. Complete applicable certification or licensure through professional organizations. Gain knowledge about the field through informational interviews with professionals. Develop work habits that are systematic, precise, and patient. Develop a strong computer background. Gain experience using scientific instruments and equipment. Pursue a graduate degree in engineering.

Optical: Colleges and universities - Federal agencies: NASA, the Department of Energy, the Department of Defense - Government laboratories - Industry e.g., medical scanners, eyeglasses, binoculars, microscopes, lasers, holography, display technologies, x-ray, ultraviolet spectra, fiber optics - Nonprofit research centers

Suggested Strategy: Obtain a master's degree for positions in industry. Supplement program with courses in electricity, magnetism, quantum mechanics, and electronics. Get involved in an independent optics project during senior year.

Nuclear: Colleges and universities - Government agencies e.g., Department of Defense, Department of Energy - Government laboratories and research centers - Industry e.g., nuclear weapons, nuclear accelerators, nuclear reactors, nuclear instrumentation, radioisotope products - Military

Suggested Strategy: A master's degree is preferred for positions in industry. Develop excellent laboratory skills through your coursework. Acquire a strong mathematics and chemistry background.

NATIONAL WAGES FOR (2006) PHYSICISTS:

	10 %	25 %	Median	75 %	90 %
United States	\$ 52,100	\$ 72,900	\$ 94,200	\$ 117,100	\$ 143,600

INFORMATIONAL WEBSITES:



<http://online.onetcenter.org>



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