

*College of Arts and Sciences*  
*Department of Physics*  
**Career Advising Guide**

Major	Skills/Attributes Associated	*Related Occupations	Related Extracurricular Activities at SU	Additional Sources of Information
Physics B.S.  Applied Physics (pre-engineering) B.S.  Physics B.S.Ed. (teaching secondary education)	likes mathematics and science perseveres imagination curiosity about how things work accurate with details <i>ability to:</i> organize data make critical observations and appropriate decisions conduct and explain scientific research use computers	Astronomer Biophysicist High School Teacher Geophysicists Physicist Seismologist Health Physics <i>Engineer:</i> Acoustical, Aeronautical, Aerospace, Agricultural, Architectural, Bioengineering, Chemical, Civil, Computer, Electrical, Environmental, Industrial, Materials, Mechanical, Nuclear	Society of Physics Students x1570  Sigma Pi Sigma (National Physics Honor Society) x1570	American Institute of Physics 335 E. 45th St. New York, NY 10017  American Physical Society 335 45th St. New York, NY 10017  Dr. Allen Armstrong x1570 Franklin Science Center 123

Physics involves the study of matter and energy. It attempts to find out how and why physical matter and energy interact as well as to describe force, motion, and gravity. Considered the foundation of science and technology, physics overlaps astronomy, engineering, chemistry, mathematics, geology, and biology.

The B.S. in physics is designed for students preparing for graduate school in Physics, Computer Science or one of the Engineering disciplines. It is also used as preparation for other professional schools such as law, medicine, business, dentistry, optometry, or osteopathy. Through proper choice of electives, it is frequently used as entry into the job market upon graduation.

The B.S. in Applied Physics (3/2 Engineering) is designed for students desiring an engineering degree with broader background in both physics and the liberal arts. The program consists of three years at SU, the successful completion of which guarantees admission to one of several engineering schools with Junior status. The successful completion of two years at the engineering school results in two degrees, a B.S. in Applied Physics from SU and a B.S. in Engineering from the engineering school.

*Entering Salary:* \$40,000 \* A Bachelor's, Master's degree or Ph.D. in physics would be useful in pursuing these occupations. These positions can be found at the federal, state, local and international level in large and small industry, large, small and personal consulting firms, in the military and general government.

Physics Research areas (Ph.D. required): Acoustics, Astrophysics, Atomic Physics, Biophysics, Chemical Physics, Geophysics, Low-Temperature Physics, Medical Physics, Meteorologics, Nuclear Physics, Oceanography, Optics, Particle Physics, Plasma Physics, Theology, Solid-State Physics, Vacuum Physics. Research is done in universities, industrial, private and government labs.