

## NATURE OF WORK

Physicists are scientists working with scientific principles and mathematics that deal with motion, structure, energy and the interaction of these areas upon each other. These principles expand currently known theories and the knowledge helps to develop advances in materials, electronics and medical equipment. Most physicists work in research and development (R & D) and increase the general scientific knowledge base or use information to develop new devices, products and processes.

## WORKING CONDITIONS

Most physicists work in a laboratory and/or an office where they keep regular hours. Occasionally, a physicist may need to work long and/or irregular hours on a research project. They may temporarily work away from home if they need unique equipment owned by a national or international facility. Most physicists never encounter unusual hazards in their work. If a physicist's work depends on grant money he or she may feel the pressure of writing grant proposals or showing results in order to keep their work funded.

## TRAINING & QUALIFICATIONS

This profession requires high levels of education. Most physicists have doctorate degrees and eventually combine their research with teaching at the college level. If they have a master's degree they may qualify for positions in manufacturing and applied R & D that does not require a Ph.D. People who hold bachelor's degrees usually do not have the knowledge base to fill a research or an upper level teaching position. They may, however, qualify to work as a technician, research assistant or as a high school teacher.

## JOB OUTLOOK

Physicists are mostly employed by the federal government and by R & D firms. The next highest level of employment is in the field of education. Employment for physicists is expected to grow faster than the average for all occupations through 2018. Retirement is the major cause of job openings in R & D, but there is an increase in the number of people taking classes in physics thus causing an increase in the number of teachers necessary to fill the demand. Related occupations also utilize training in physics, therefore people with a bachelor's degree may be employed in engineering, mathematics, and both environmental and computer sciences.

## CAREER OPTIONS

Physicists

## ESTIMATED SALARY RANGE

New Mexico—\$52,814-\$79,354

Nationally— \$57,160—\$130,980

(depending on skill, experience and responsibility)

## RELATED OCCUPATIONS

Engineers, chemists, material scientists, computer scientists, geologists, mathematicians, as well as engineering and natural sciences managers.

## SJC Basic Program Information

The Associate of Science degree is intended for transfer to a four-year bachelor's degree-granting institution. Students intending to transfer or pursue a particular course of study are strongly encouraged to check with their advisor and carefully coordinate their coursework at San Juan College with the requirements of the transfer institution.

Students must receive a "C" or better in all courses to count toward a degree.

## For further information go to:

[www.sanjuancollege.edu/pages/158.asp](http://www.sanjuancollege.edu/pages/158.asp)

Click on AS link under Transfer Programs

[www.sanjuancollege.edu/pages/1422.asp](http://www.sanjuancollege.edu/pages/1422.asp)

[www.bls.gov/oco/ocos052.htm](http://www.bls.gov/oco/ocos052.htm)

[www.aip.org](http://www.aip.org)

[www.aps.org](http://www.aps.org)

