

Computer Science*

Information Technology Career Cluster

(AS Transfer Degree)

SAN JUAN COLLEGE

NATURE OF WORK

For computers to do the amazing things they do for us we need to have computer programmers and software engineers creating detailed instructions, called programs or software. Computers follow the programs in order to perform their functions. Programmers write and test the instructions to ensure accuracy. They also conceive, design and test logical structures for solving problems utilizing the computer. With all of the advancements in the technical world programmers and engineers need to be constantly learning new languages and programming tools.

WORKING CONDITIONS

Programmers and software engineers generally work in offices in comfortable surroundings. Many may work long hours or weekends to meet deadlines or fix critical problems that occur during off hours; otherwise most work a 40 hour work week. Given the technology available, telecommuting is becoming the chosen mode of work for a wide range of computer professionals, especially computer programmers. Programmers can access a system from remote locations to make corrections and/or fix problems.

TRAINING & QUALIFICATIONS

The majority of computer programmers have a bachelor's degree or higher. Many hold a degree in computer science, mathematics or information systems. Some have taken additional courses in a variety of areas of business to supplement their computer specialty. As the level of education and training required by employers continues to rise, the need for a bachelor's degree may increase in the future. Computers are constantly changing and this career area requires lifelong learning and retraining regularly. Employers want their programmers to have the latest computer knowledge and may pay for training seminars and additional classes.

JOB OUTLOOK

Computer software engineers are expected to be among the fastest-growing occupations through 2018. Programmers with a bachelors degree and experience should have no trouble finding a good job. Jobs for both systems and applications programmers should be plentiful in data processing service firms, software houses and computer consulting businesses.

*Most of this information is from the Occupational Outlook Handbook, 2010-2011 Updated: January 2011

CAREER OPTIONS

Computer Programmers and Software Engineers

ESTIMATED SALARY RANGE

New Mexico—Entry \$40,171 Exp. \$76,651
Nationally— Entry \$49,580 to Exp. \$100,000
(depending on area of expertise)

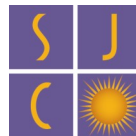
RELATED OCCUPATIONS

Computer Scientists, Computer Systems Analysts, Database Administrators, Statisticians, Mathematicians, Engineers, Financial Analysts, and Operations Research Analysts.

SJC Basic Program Information

The Computer Science Associate of Science program is designed to prepare students for a bachelor's degree. It is a 67-credit hour program.

The rigorous nature of this degree fulfills the expectations at the baccalaureate level, however it is recommended that students contact an advisor at their desired four-year university to make sure that their electives will transfer.



For further information go to:

www.sanjuancollege.edu/pages/158.asp
www.bls.gov/oco/ocos110.htm
www.bls.gov/oco/ocos267.htm