The department of Computer Information Systems (CIS) offers degrees and certificates in three major areas: **Computer Programming**, Network Administration and Web Developer. See the respective major sheets for additional information about the specific certificates and degrees. A grade of “C” or better is required in all certificate, major and major elective courses.

The CIS Computer Programming Certificate and Degree Programs are designed to provide students with skills in computer programming to enable graduates to gain employment as an entry-level programmer. Courses will emphasize skills on how to organize a computer program, and how to program in several different languages such as Java and C++. An Associate in Science Degree and two levels of certificates are offered.

Upon completion of the program, students will be able to:

- Recognize the components that constitute a computer information system. Identify various hardware, software, data, computer number systems, and procedures.
- Demonstrate understanding of the impact and application of computers in business, government, and social organizations. Students solve common business problems with computer applications and the internet.
- Receive and process written and oral technology related information. Students interpret technology communication concepts including wired and wireless networks, servers and clients, users interfaces, operating systems, applications, utilities, and programming languages.
- Recognize the influence of the Internet on business and terms relating to the World Wide Web. Students perform the fundamental functions that operating systems and applications software provides. Students demonstrate skills in word processing, spreadsheets, presentation graphics, and use of Internet. Students will recognize a programming language and demonstrate steps involved in developing an application.
- Demonstrate the ability to work and interact effectively in teams consisting of individuals with differing interests, gender, global backgrounds and professions.
- Demonstrate ability to exercise professional, ethical responsibility in the use of technology in society.

**FOR ADDITIONAL INFORMATION, SEE A COUNSELOR, VISIT THE CAREER/TRANSFER CENTER, OR CONTACT:**
Business and Workforce Development Division (408) 288-3131
San José City College Web Page [www.sjcc.edu](http://www.sjcc.edu)
# Computer Information Systems
## Computer Programming

### Associate in Science Requirements:

#### MAJOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 041</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 054</td>
<td>C/C++ Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 055</td>
<td>Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CIS 059</td>
<td>Object Oriented Design Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 073</td>
<td>Visual Basic Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 084</td>
<td>JAVA Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 157</td>
<td>Introduction to UNIX/LINUX</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL** 21

**Approved Major Electives – Complete 15 units from list below:**


**A.S. MAJOR REQUIREMENTS** 21

- NON-DUPLICATED UNITS FROM APPROVED MAJOR ELECTIVES 15
- GENERAL EDUCATION REQUIREMENTS 24
- PHYSICAL ACTIVITY 1

**TOTAL UNITS REQUIRED** 61

Prepared by the SJCC Articulation Office and is subject to change without notice. This major sheet should be used for advisory purposes only. See a counselor for assistance in preparing your individual course plan. It is ultimately the individual student’s responsibility to ensure that all requirements are met.