COMPUTER SCIENCE, CERTIFICATE OF ACHIEVEMENT (C)

Overview

Computer Science has grown dramatically over the last decade, until it now affects each of us in our daily lives. We come into contact with ten or more different computer systems each day. These range from automatic bank tellers and "intelligent" cash registers, to automobile fuel monitoring systems.

The Computer Science Department teaches students how to design and implement the computer software that brings intelligence to computer systems. Santa Barbara City College's Computer Science program includes introductory to advanced topics. It is designed to provide general education, transfer and occupational training.

Requirements

Certificate of Achievement Requirements

Complete all Department Requirements for the Certificate of Achievement with a cumulative grade point average (GPA) of 2.0 or better. Candidates for a Certificate of Achievement are required to complete at least 20% of the department requirements through SBCC.

Code	Title	Units
Department Requirements		
CS 101	Computer Concepts	4
CS 105	Theory and Practice I	3
CS 130	Introduction to the Linux Operating System	2.5
CS 137	C Programming	3-4
or CS 140	Object-Oriented Programming Using C++	
MATH 107	Intermediate Algebra	5
PHIL 205	Introduction to Logic	3
PHYS 102	Introductory Physics For Science Majors	4
Complete two courses from the following:		6-7
CS 106	Theory and Practice II	
CS 107	Computer Architecture and Organization	
CS 111	HTML And Webmastering	
CS 137	C Programming [1]	
CS 140	Object-Oriented Programming Using C++ [1]	
Total Units		**30.50-32.50**

[1]   CS 137 or 140 can only be used to meet this requirement if not used to satisfy a core requirement above (double-counting is not allowed).

Learning Outcomes

1. Decompose problems into algorithms.

2. Use current computer applications

3. Create programs that use flow control and looping constructs (e.g. for and while).

4. Create programs that utilize standard data structures (e.g. queues and lists).

5. Create programs that use object-oriented concepts.

6. Create programs using current programming environments.

7. Describe computer architecture.

8. Deliver and test programs.

Recommended Sequence

Make an appointment with your SBCC academic counselor through Starfish to create a Student Education Plan that reflects a recommended course sequence for this program that is tailored to your individual needs.

How to schedule an Academic Counseling appointment (https://www.sbcc.edu/counselingcenter/counselingappointments.php).