FOOTHILL COLLEGE Computers, Technology & Information Systems Division

COMPUTER SCIENCE

Associate In Science Degree & Certificate Curriculum Requirements

COMPUTER SCIENCE

The Computer Science major has been developed for the student intending to transfer for a four-year degree in Computer Science. It also serves to provide career enrichment for the working professional. It provides an excellent foundation in computer programming languages, problem solving tools, and mathematics through calculus. The gaming certificate offers an entrée into game development and interactive simulation.

CAREER OPPORTUNITIES

The need for qualified computer programmers, software developers & system administrators continues. Experienced Computer Programmers are needed for research, game development, engineering interactive simulations and many phases of medical & associated health sciences.

ASSOCIATE DEGREE REQUIREMENTS*

The Associate of Science degree in Computer Science requires:

- English proficiency: English 1A, ESL 26, or equivalent.
- Mathematics proficiency: Math 103, 105 or equivalent.
- A minimum of 90 total units including:
  - All General Education requirements (see reverse)
  - 54-55 units in this major selected from Core and Electives
  - Electives & other graduation requirements as appropriate

CORE COURSES: (35 Units required)

Prerequisite: Math 49 or equivalent

Select the three-class JAVA or C++ sequence

CIS 15A	Computer Science I: C++	(5 units)
CIS 15B	Computer Science II: C++	(5 units)
CIS 15C	Computer Science III: C++	(5 units)
	or	
CIS 27A	Computer Science I: JAVA	(5 units)
CIS 27B	Computer Science II: JAVA	(5 units)
CIS 27C	Computer Science III: JAVA	(5 units)

And:

MATH 1A	Calculus	(5 units)
MATH 1B	Calculus	(5 units)
MATH 1C	Calculus	(5 units)
Math 22	Discrete Mathematics (or CIS 18)	(5 units)

ELECTIVES (20 Units)

CIS 12A	Fundamentals of VB.NET Programming	(5 units)
CIS 19A	Introduction to Programming with C#	(5 units)
CIS 27P	JAVA For Programmers	(5 units)
CIS 27D	JAVA Advanced Features	(5 units)
CIS 52A	Introduction to Data Management Systems	(5 units)
CIS 52B	Oracle SQL	(5 units)
CIS 68A	Introduction to Linux and UNIX	(5 units)
CIS 68B	Linux and UNIX Shell Programming	(5 units)
CIS 78	Software Engineering	(5 units)
CNET 54A	Network Fundamentals and the TCP/IP Protocol Suite (CCNA I)	(5 units)
MATH 1D	Calculus	(5 units)
MATH 2A	Differential Equations	(5 units)
MATH 2B	Linear Algebra	(5 units)
PHYS 4A	Calculus Physics I	(5 units)

* 50% of the major units must be taken within CTIS and a grade of C or better is required in these classes. All courses pertaining to the major must be taken for a letter grade. In addition, a GPA or 2.0 or higher is required in all Core and Support courses for the Degree.

Academic Year 2007-2008