

PROGRAM OF STUDY

COMPUTER INFORMATION SCIENCE A.S. Degree

The major in Computer Information Systems prepares students for careers in the Information Technology field. The program provides the analytical, methodological, and language skills required within the computer industry, and prepares students for transfer to four-year colleges for further study in Computer Information Systems, as well as related areas such as Computer Science. Please consult with a counselor for more information regarding transferring.

First Semester		Units
CIS 005	Introduction to Computer Science	5
MATH 003A	Calculus I	5
Second Semester		
CIS 061	Structure and Interpretation of Computer Programs	5
MATH 003B	Calculus II	5
Third Semester		
CIS 036A	Java Programming Language I	4
	or	
CIS 025	Object Oriented Programming Using C++	4
MATH 003E	Linear Algebra	3
Fourth Semester		
CIS 025B	C++ Programming Language II	4
	or	
CIS 036B	Java Programming Language II	4
MATH 003F	Differential Equations	4
	or	
MATH 011	Discrete Mathematics	3
General Education and/or elective courses		Units
General Education and/or elective courses		26

Total Units	60 - 61
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PROGRAM OF STUDY

AFRICAN-AMERICAN STUDIES A.A. Degree

The African-American Studies program provides a wide range of courses through which students can develop an understanding of the historical and cultural development of African-Americans. The program is interdisciplinary in scope, involving examinations of African-American history, politics, economics, sociology, philosophy, psychology, religion, and popular culture.

Career Opportunities in

Health care, social work, mental health, law, historical societies, education, non-profit organizations, community organizing.

Degree Major Requirements

	Units
AFRAM 001 Introduction to African American Studies	3
AFRAM 005 The African American Family in the United States	3
AFRAM 008 African American Politics	3
AFRAM 026 African American Culture: Black Music, Art, and Literature	3
AFRAM 030 African American History: Africa to 1865	3
or	
AFRAM 031 African American History: 1865-1945	3

Select one course from the following:

	Units
AFRAM 011 Perceptions of the African American Male in America	3
AFRAM 012 Psychology of African Americans	3
AFRAM 014A Social-Psychology of African American Male/Female	3
AFRAM 023 Perceptions of African American Women	3

Select one course from the following:

	Units
AFRAM 002 Black Economics	3
AFRAM 016 The Prison Industrial Complex: African American Incarceration	3
AFRAM 020 Field Studies in the African American Community	3
AFRAM 029 African American Experience Through Films	3
AFRAM 038 Environmental Racism and Justice	3
AFRAM 045 Religion and the African American Church in America	3
AFRAM 050A History of Africa to 1800	3
AFRAM 050B History of Africa from 1800 to the Present	3

*Courses may be applied to Associate Degree General Education requirement.
For Associate Degree General Education requirements, refer to page 75.*

Total Units

21

PROGRAM OF STUDY

Computer Programming with C++ Certificate of Achievement

The certificate in Computer Programming with C++ prepares students for careers as software developers. The program provides the analytical, methodological, and language skills required within the computer industry, and serves as a partial foundation for continued education at four-year institutions. It provides a "merit badge" certification of a skill set needed in a vital career field. See a counselor for more information.

Career Opportunities in

Computer programming continues to be an excellent career, with openings in all industries. Job titles include: Computer Programmer, Programmer/Analyst, Software Developer, Computer Systems Analyst, Computer Applications Developer, Computer Applications Engineer, Computer Language Coder, Computer Systems Consultant, Software Architect, Software Engineer.

Core Requirements		Units
CIS 025	Object Oriented Programming Using C++	4
CIS 025B	C++ Programming Language II	4
CIS 006	Introduction to Computer Programming	5
	or	
CIS 061 *	Structure and Interpretation of Computer Programs	5

Choose at least 3 units from the following. Can take CIS 6 or 61 if not used above.		Units
CIS 006	Introduction to Computer Programming	5
CIS 027	Data Structures and Algorithms	4
CIS 061	Structure and Interpretation of Computer Programs	5
CIS 036A	Java Programming Language I	4
CIS 036B	Java Programming Language II	4
ECON 002	Principles of Economics (Micro-Economics)	3
BUS 024	Computerized Accounting Principles	3
BUS 001A	Financial Accounting	4
BUS 020	General Accounting	3
BUS 005	Human Relations in Business	3
BUS 040A	Introduction to Microsoft Access for Business Applications	4
MATH 003A	Calculus I	5
MATH 011	Discrete Mathematics	4
MATH 013	Introduction to Statistics	4

Any programming course, including those listed above, is acceptable if not duplicative of courses counted for the certificate in another category. In addition, since many programming jobs involve financial systems, an introductory accounting or micro-economics course is useful to a programming career so can be used as an elective. Computer Science majors often require higher mathematics, so an advanced mathematics course can be used as an elective.

Total Units	16
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*Students planning to transfer to a Computer Science program, especially at UC Berkeley, should choose CIS 61

PROGRAM OF STUDY

Computer Programming with Java Certificate of Achievement

The certificate in Computer Programming with Java prepares students for careers as software developers. The program provides the analytical, methodological, and language skills required within the computer industry, and serves as a partial foundation for continued education at four-year institutions. It provides a "merit badge" certification of a skill set needed in a vital career field. See a counselor for more information.

Career Opportunities in

Computer programming continues to be an excellent career, with openings in all industries. Job titles include: Computer Programmer, Programmer/Analyst, Software Developer, Computer Systems Analyst, Computer Applications Developer, Computer Applications Engineer, Computer Language Coder, Computer Systems Consultant, Software Architect, Software Engineer.

Required Courses		Units
CIS 036A	Java Programming Language I	4
CIS 036B	Java Programming Language II	4
CIS 006	Introduction to Computer Programming	5
	or	
CIS 061 *	Structure and Interpretation of Computer Programs	5

Choose at least 3 units from the following list. Can take CIS 6 or 61 if not used above.		Units
BUS 001A	Financial Accounting	4
BUS 005	Human Relations in Business	3
BUS 020	General Accounting	3
BUS 024	Computerized Accounting Principles	3
BUS 040A	Introduction to Microsoft Access for Business Applications	4
CIS 006	Introduction to Computer Programming	5
CIS 025	Object Oriented Programming Using C++	4
CIS 025B	C++ Programming Language II	4
CIS 027	Data Structures and Algorithms	4
CIS 061	Structure and Interpretation of Computer Programs	5
ECON 002	Principles of Economics (Micro-Economics)	3
MATH 003A	Calculus I	5
MATH 011	Discrete Mathematics	4
MATH 013	Introduction to Statistics	4

Complete at least 3 units. Any programming course, including those listed above, is acceptable if not duplicative of courses counted for the certificate in another category. In addition, since many programming jobs involve financial systems, an introductory accounting or micro-economics course is useful to a programming career so can be used as an elective. Computer Science majors often require higher mathematics, so an advanced mathematics course can be used as an elective.

Total Units	11 - 12
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**Students planning to transfer to a Computer Science program, especially at UC Berkeley, should choose CIS 61

PROGRAM OF STUDY

SOCIAL SCIENCES A.A. Degree

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These courses emphasize a multidisciplinary approach to the understanding and study of human behavior and social organization. Students study and analyze human societies; the institutions, organizations and groups that comprise them; and the way individuals and groups relate to one another. Students develop an understanding of the various theories and methodologies of the disciplines, as well as skills in applying their knowledge in critical and useful ways as they navigate their own lives within a constantly changing and complex social world. For the Associate of Social Sciences, students must complete the General Education pattern and elective courses for an additional 42 units. Students must complete 18 units in the area of emphasis courses with a grade of "C" or better, 19 units of general education requirements, and an additional 23 units of elective courses for a total 60 units. As this degree alone may not be complete preparation for transfer, students wishing to continue at the UC or CSU system should meet with a counselor to develop a transfer plan which addresses all general education and lower-division transfer requirements.

Career Opportunities in

Rather than career preparation this curriculum is intended to prepare students for transfer to four year institutions with the benefit of introductory course work in the the social sciences.

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Degree Major Requirements: ||

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Select 18 units from at least two discipline areas:	Units
African-American Studies 1, 2, 5, 8, 11, 12, 14A, 14B, 16, 17*, 20, 23, 31, 32, 35***, 38, 45****, 50A, 50B *	3
Anthropology 3, 7, 14, 18	3
Asian/Asian-American Studies 17*, 21, 26, 29, 32, 35***, 45A, 45B	3
Biology 27**	3
Business 5	3
Counseling 30, 230	3
Economics 1, 2	3
Education 1	3
Geography 2, 3, 8	3
Health Education 1	3
History 3B, 5, 7A, 7B, 17, 19	3
Humanities 45****	3
Journalism 62	3
Labor Studies 10, 13, 20, 21, 22, 30	3
Mexican and Latin-American Studies 12, 17*, 20, 23, 30A, 30B, 31, 35***	3
Native American Studies 1, 2, 17*, 35***	3
Political Science 1, 2, 3, 4, 6, 18, 21	3
Psychology 1A, 1B, 6, 7A, 7B, 8, 12**, 24, 30, 33, 237 +	3
Sociology 1, 2, 5, 13, 30, 45, 120	3
Communications 19	

Ethnic Studies 1

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Total Units

18

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* or ** or *** or ****

Students will receive credit
for one course only.

+1 unit

PID 517