

# Computer Information Systems, A.A.S.

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Employment opportunities for programmer analysts and related positions continue to be strong and growing. Key areas include object-oriented programming, database management, client-server applications, security and mobile development.

JCCC's associate of applied science in computer information systems focuses on skills needed for entry-level software development and related positions. The program is designed to prepare professionals with skills that are applicable to different computing systems. With its emphasis on practical experience and on currency in software and curriculum, the program has much to offer the information systems professional who wishes to upgrade or broaden his or her knowledge of the field.

The associate of applied science degree is awarded for successful completion of 64 credit hours.

(Major Code 2930; State CIP Code 11.0201)

- Programming (<http://www.jccc.edu/academics/computers/programming>)

## Associate of Applied Science Degree

### First Semester

CS 134	Programming Fundamentals	4
CWEB 110	XHTML and CSS	3
ECON 132	Survey of Economics	3
or ECON 230	Economics I	
ENGL 121	Composition I*	3
MATH 171	College Algebra*	3
OR		
Any Precalculus/Calculus Course		
Total Hours		16

### Second Semester

Note: Transfer students should take the language that transfers to their chosen school. Java or C# is recommended for most career students.

CS 200	Concepts of Programming Algorithms Using C++*	4
or CS 201	Concepts of Programming Algorithms using C#*	
or CS 205	Concepts of Programming Algorithms using Java*	
PHIL 124	Logic and Critical Thinking	3
or PHIL 143	Ethics	
IT 140	Networking Fundamentals	4
CIS 204	UNIX Scripting and Utilities*	3
SPD 120	Interpersonal Communication	3
or SPD 121	Public Speaking	
or SPD 125	Personal Communication	
or ENGL 123	Technical Writing I*	
Total Hours		17

### Third Semester

Full Semester Courses:

CIS Elective (see below)		3
Health and/or Physical Education Elective ^		1
CS 235	Object-Oriented Programming Using C++*	4
or CS 236	Object-Oriented Programming Using C#*	
or CIS 240	Advanced Topics in Java*	
CIS 242	Introduction to System Design and Analysis*	3
CIS 260	Database Management*	4

First or Second Five Week Session:

CWEB 160	Introduction to JavaScript*	1
Total Hours		16

^ Health and/or Physical Education Elective (<http://catalog.jccc.edu/spring/degrecertificates/electives/health-and-or-physical-ed-aas>)

## Fourth Semester

CIS Elective (see below)		3
CS 250	Basic Data Structures using C++*	4
or CS 255	Basic Data Structures Using Java*	
CIS 264	Application Development and Programming*	4
CIS 275	Web-Enabled Database Programming*	4
Total Hours		15

## CIS Electives

ACCT 121	Accounting I	3
CIS 162	Database Programming*	4
CIS 201	Introduction to Information Systems*	3
CIS 208	Mobile Application Development*	4
CIS 240	Advanced Topics in Java*	4
CIS 270	Information Systems Internship*	3
CIS 291	Independent Study*	1-7
CIS 292	Special Topics:	1-4
CS 210	Discrete Structures I*	3
CS 211	Discrete Structures II*	3
CS 225	Digital Logic with VHDL*	2
CS 235	Object-Oriented Programming Using C++*	4
CS 236	Object-Oriented Programming Using C#*	4
CS 250	Basic Data Structures using C++*	4
CS 255	Basic Data Structures Using Java*	4
CWEB 136	Introduction to PHP*	1
CWEB 146	PHP with MySQL*	1
CWEB 170	Intermediate JavaScript*	1
CWEB 212	Technical Interface Skills*	3
ELEC 125	Digital Electronics I	4

**Total Program Hours: 64**