

# Computer Information Systems-Software Developer Certificate

The Computer Information Systems - Software Developer Certificate provides a foundation in skills needed to analyze business problems and develop software solutions using current industry standard development tools. The certificate provides an academic credential reflecting enhanced job skills for those seeking advancement in their information services career or for individuals with a prior degree in another discipline seeking a career change.

(Major Code 5180; CIP Code 11.0201)

Software Development Program web page (<http://www.jccc.edu/academics/credit/software-development/>)

## Certificate Requirements

### First Semester

Code	Title	Hours
CS 134	Programming Fundamentals	4
or CIS 142	Beginning Programming using Python	
MATH 171	College Algebra*	3
WEB 110	HTML and CSS	3
<b>Total Hours</b>		<b>10</b>

### Second Semester

Code	Title	Hours
CIS 204	UNIX Scripting and Utilities*	3
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*	

Note: Transfer students should take the language that transfers to their chosen school. KU transfer students should contact the JCCC CSIS department chair about potentially taking CS 202 as an alternative. Java or C# is recommended for most career students. C++ is recommended for embedded systems and Java for mobile development.

WEB 114	Web Scripting: JavaScript I*	2
<b>Total Hours</b>		<b>9</b>

### Third Semester

Code	Title	Hours
CIS 242	Introduction to System Design and Analysis*	3
CIS 260	Database Management*	4
CIS 275	Web-Enabled Database Programming*	4
CS 235	Object-Oriented Programming Using C++*	4
or CS 236	Object-Oriented Programming Using C#*	
or CIS 240	Advanced Topics in Java*	
<b>Total Hours</b>		<b>15</b>

**Total Program Hours: 34**

\* This course has registration requirements.