## Computer Information Systems - Software Engineering Certificate (CIS.SWE.CT)

## Certificate

## Business, Management, Marketing and Technology

Orchard Ridge Campus

The Computer Information Systems (CIS) certificates are designed for students who need specialty skills in a particular area of information technology that will help satisfy current of future employment requirements. Unlike associate degrees, certificate programs assume that students already have obtained or do not require general education skills and are now looking for education in a specific area of computer technology. Therefore, all of the courses within a certificate program are chosen to develop these specific technical skills in a shorter amount of time than what would be required in an associate degree program. All CIS courses use current computer tools and place an emphasis on practical application to provide a relevant learning environment.

This certificate is awarded to students who successfully complete all core requirements plus the list of courses for at least one focus area.

A separate certificate is not awarded for each focus area. One certificate may be awarded from 1 to 2 focus areas.

Computer Information Systems - Software Engineering program webpage (https://www.oaklandcc.edu/programs/cis/softwareeng.aspx)

Full Time - Game Design and Development Focus Area program plan example

Full Time - Full Stack Development Focus Area program plan example

Code	Title	Credit Hours	
Core Requirements			
CIS 1440	Front-End Web Technologies (HTML, CSS, and JavaScript)	4	
CIS 1512	Principles of Software Engineering	3	
CIS 2131	Python Programming	4	
<b>Advanced Courses</b>			
CIS 2454	Full Stack Web Development	4	
CIS 2777	Introduction to Applied AI	4	
Choose one of the following focus areas:			
Game Design and Development Focus Area:			
CIS 2850	Introduction to Graphics Modeling Software	; 4	
CIS 2859	Foundations of Game Software Development	4	
CIS 2862	Game Design	3	

## Full Stack Development Focus Area:

<b>Total Credit Hours</b>		33
CIS 2991	Software Engineering Capstone	3
Capstone		
CIS 2878	DevOps Engineering	3
CIS 2858	Cloud Native Systems and Integration	4
CIS 2818	Mobile Application Development (Android)	4

A minimum cumulative 2.00 grade point average (GPA) overall is required for graduation.