

# Computer Information Systems - Software Engineering Option (CIS.SWE.AAS)

## Associate in Applied Science

### Business, Management, Marketing and Technology

Orchard Ridge Campus

The Computer Information Systems (CIS) associate degrees are designed for students who need general education (e.g., communication, science, mathematics, fine arts, social science) combined with a solid foundation in the fundamental computer skills that are generally required to design, create, and test software, or analyze business system requirements and design solutions, or support and protect the operation of technology resources. These fundamental computer skills are commonly required by most four-year educational programs that offer the types of bachelor degrees most employers look for when hiring information technology professionals. All CIS courses use current computer tools and place an emphasis on practical application to provide a relevant learning environment.

**Program Webpage** - Click Here (<https://www.oaklandcc.edu/programs/cis/softwareeng.aspx>)

**Program Plan Example** - Click Here (<https://www.oaklandcc.edu/programs/plans/cis.swe.aas.pdf>)

**Program Outcomes** – Click Here (<https://www.oaklandcc.edu/programs/outcomes/CIS.SWE.AAS.ProgramOutcomes.pdf>)

Code	Title	Credit Hours
<b>Major Requirements</b>		
CIS 1200	Introduction to Database Systems	4
CIS 1300	Networking Concepts	4
CIS 1420	HTML5 Programming	3
CIS 1440	JavaScript Programming for Websites	4
CIS 1500	Introduction to Programming (Java)	4
CIS 1512	Principles of Software Engineering	3
CIS 2111	Systems Analysis and Design (UML)	4
CIS 2151	Object-Oriented Programming (Java)	4
CIS 2252	Object-Oriented Programming (C++)	4
CIS 2353	Data Structures	4
CIS 2454	Web System Development (PHP, Java)	4

CIS 2818	Mobile Application Development (Android)	4
----------	--	---

#### Required Supportive Courses

COM 1290 <sup>1</sup>	Interpersonal Communication	3
-----------------------	-----------------------------	---

ENG 1510 <sup>1</sup> or ENG 1510E	Composition I Composition I Enhanced	3-4 4
---------------------------------------	---	----------

MAT 1150 <sup>1</sup>	Intermediate Algebra (or higher level except MAT 1525, MAT 2530 or MAT 2540)	(3-4)
-----------------------	--	-------

PHI 1710 <sup>1</sup>	Introduction to Informal Logic	3
-----------------------	--------------------------------	---

**Total Credit Hours for Program-Related Courses** **58-59**

#### General Education Requirements

Communication / English (3-credits)

Satisfied

Fine Arts / Humanities (3-credits)

Satisfied

Mathematics / Science (3-credits)

Satisfied

Social Science (3-credits)

3

Complete 3 credits from Social Science courses listed in the General Education Distribution List (<http://catalog.oaklandcc.edu/graduation-requirements/general-education-distribution/#social-science>)

Written Communication (3-credits)

Satisfied

**Additional elective credits needed to meet requirements for an Associate in Applied Science degree** **0-1**

**Total Credit Hours** **62-63**

<sup>1</sup> Course may be used to meet General Education requirements.

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