

CIS SOFTWARE DEVELOPMENT, ASSOCIATE OF APPLIED SCIENCE

The Associate of Applied Science (AAS) CIS Software Development program represents a broad exposure to multiple disciplines across various contemporary technologies. Students will be offered opportunities to explore computing systems from small micro-systems to enterprise solutions. Courses in this degree represent meaningful tools used in industry and mastery of them brings personal value to each student. Graduates of this program are capable of entering the workplace as a junior level developer, mobile application development.

Software developers are one of the most in-demand careers throughout the world. As technology grows and engrosses more of the American life, more automation and software systems are needed. The future is very bright.

Click here (<https://www.socc.edu/pathways/roadmapsaz/312-cis-software-development-roadmap>) to learn about Career Pathway certificates that lead to an AAS in CIS Software Development.

Graduation Requirements

Students must complete a minimum of 95 credit hours with a minimum Grade Point Average (GPA) of 2.0 or better. All courses must be passed with a grade of 'C' or better.

Twenty-four (24) credits must be completed at Southwestern before the AAS CIS Software Development degree is awarded.

Complete the graduation application process one term prior to the term of completion (e.g., spring term graduates must apply during winter term).

Pre-Program Courses

Students are required to take the following courses *prior to* the program courses, depending on students' college placement information. See advisor for details:

Code	Title	Credits
CIS90	Computer Basics (or demonstrate proficiency)	2
MTH60	Algebra I	4
WR90	Paragraph Fundamentals (or placement in higher writing course)	3-4
or WR90R	Academic Literacy	

Program Guide

Course	Title	Credits
First Year		
Fall		
CIS151	Network Essentials	4
CS160	Computer Science Orientation	4
MTH86	Computer Technology Mathematics ¹	4
WR115	Introduction to Expository Writing (or higher)	3
Credits		15

Winter		
CIS140U	Intro to Operating Systems: Unix	4
CIS145	Hardware Installation Support	4
CS161	Introduction to Computer Science I	4
CS195	Web Development I	3
Credits		15

Spring		
BA110	Group Dynamics for Teams ²	3
CS133WS	Web Scripting	4
CS162	Introduction to Computer Science II	4
Specific Elective ⁴		4
Credits		15

Second Year		
Fall		
CIS250	Technology Entrepreneurship	3
CS233WS	Computer Language II: Server-Side	4
CS261	Data Structures	4
CS275	Database Management	4
Credits		15

Winter		
CIS279	Network Management I (Network Hardware)	4
CS244	Systems Analysis	3
CS276	Advanced SQL	4
SP100	Basic Speech Communications ((or higher))	3
Specific Elective ³		3
Credits		17

Spring		
CS165	Mobile Application Development	4
CIS280	CWE: Computer Info Systems	4
CS297	SD Professional Capstone	4
PE231	Wellness for Life ⁴	3
Specific Elective ³		3
Credits		18
Total Credits		95

¹ MTH105 Math in Society or higher may be substituted for MTH86 Computer Technology Mathematics.

² BA120 Leadership Development, BA285 Human Relations in Organizations; PSY100 Introduction to Psychology, PSY201 General Psychology, PSY201H General Psychology w/Honors, PSY203 General Psychology, or PSY203H General Psychology w/Honors may be substituted for BA110 Group Dynamics for Teams.

³ Specific Electives: Any CS/CIS, BA, AC course not required for the degree; WR227 Report Writing, MTH65 Algebra II, MTH95 Intermediate Algebra, or higher; ART115 Basic Design I, Intro to Elements, ART116 Basic Design II, Color Theory, ART117 Basic Design III, Intro to 3D Design, ART225 Computer Art I, or MFG4101 Electrical Systems Troubleshooting.

⁴ HE250 Personal Health or three (3) credits of PE185 sport/activity courses may be substituted for PE231 Wellness for Life.

Program Student Learning Outcomes

The Associate of Applied Science (AAS) CIS Software Development is designed for students planning to complete an associate degree in Computer Information Systems(CIS) Software Development. Students have the opportunity to transfer to most Oregon public and private universities as the program at Southwestern Oregon Community College aligns with the first two-year computer science programs in those universities.

Upon successful completion of this program the student will be able to:

- Demonstrate the skill and knowledge to install, configure and maintain PC and server hardware/software in a network environment.
- Research, interpret and communicate technical information in written, graphic, diagrammatic, electronic and oral forms.
- Demonstrate the ability to work independently or in a group environment with sensitivity to the needs of customers and coworkers.
- Demonstrate the ability to plan and implement both wired and wireless networks sufficient for small business use.
- Demonstrate basic ability to develop new products and services to meet the needs of a changing economy.
- Plan, write, and debug software applications within multiple programming environments.