

# Programmer, Certificate of Completion

Visit the Computer Science Department page (<https://www.uvu.edu/cs/>) for more information on the program and access to advising.

## Program Description

The program introduces the students to basic, entry level programming.

## Program Requirements

Code	Title	Credit Hours
<b>Total Credit Hours</b>		<b>30</b>
<b>Discipline Core Requirements</b>		<b>21 Credits</b>
CS 1400	Fundamentals of Programming	3
CS 1410	Object Oriented Programming	3
CS 2300	Discrete Mathematical Structures I	3
CS 2420	Introduction to Algorithms and Data Structures	3
CS 2600	Computer Networks I	3
CS 2810	Computer Organization and Architecture	3
ENGL 1010 or ENGH 1005	Introduction to Academic Writing Literacies and Composition Across Contexts	3
<b>Elective Requirements</b>		<b>9 Credits</b>
Choose 9 credits from the following courses (Must be approved by CSE Department. See CSE adviser):		9
CS 2450	Software Engineering (3)	
CS 2550	Web Programming I (3)	
CS 2810R	Internship (1-8) (Must be taken for 3 credits)	
CS 3060	Operating Systems Theory (3)	
CS 3250	Java Software Development (3)	
CS 3260	CsharpNET Software Development (3)	
CS 3370	C Plus Plus Software Development (3)	
CS 3520	Database Theory (3)	
IT 1510	Introduction to System Administration--Linux/UNIX (3)	

## Graduation Requirements

1. Completion of a minimum of 30 semester credits.
2. Minimum grade of C- required in all courses.
3. Overall grade point average of 2.0 (C) or above.
4. Residency hours -- minimum of 10 credit hours through course attendance at UVU.

## Graduation Plan

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in Wolverine Track (<http://www.uvu.edu/wolverinetrack/>).

First Year		Credit Hours
<b>Semester 1</b>		
CS 1400	Fundamentals of Programming	3
ENGL 1010 or ENGH 1005	Introduction to Academic Writing or Literacies and Composition Across Contexts	3
Computer Electives		3
<b>Credit Hours</b>		<b>9</b>
<b>Semester 2</b>		
CS 1410	Object Oriented Programming	3
CS 2810	Computer Organization and Architecture	3

Computer Electives		3
	<b>Credit Hours</b>	<b>9</b>
<b>Second Year</b>		
<b>Semester 3</b>		
CS 2300	Discrete Mathematical Structures I	3
CS 2420	Introduction to Algorithms and Data Structures	3
CS 2600	Computer Networks I	3
Computer Electives		3
	<b>Credit Hours</b>	<b>12</b>
	<b>Total Credit Hours</b>	<b>30</b>

## Program Learning Outcomes

1. Graduates are able to develop solutions to moderately complex computing problems.
2. Graduates have proficiency in discrete mathematics.
3. Students understand the fundamentals of net-centric computing.

## Computer network support specialists

- Total Positions 166,700
- Field Growth 7.3%
- Median Salary \$71,530
- Average Openings 12.1

## Computer programmers

- Total Positions 139,400
- Field Growth -9.6%
- Median Salary \$99,700
- Average Openings 6.4

## Software developers

- Total Positions 1,692,100
- Field Growth 17.9%
- Median Salary \$132,270
- Average Openings 125.1

## Software quality assurance analysts and testers

- Total Positions 205,000
- Field Growth 11.8%
- Median Salary \$101,800
- Average Openings 15.0

## Web developers

- Total Positions 94,100
- Field Growth 9.0%
- Median Salary \$84,960
- Average Openings 6.6

## Web and digital interface designers

- Total Positions 128,600
- Field Growth 7.9%
- Median Salary \$98,540
- Average Openings 9.9

## Computer science teachers, postsecondary

- Total Positions 45,000
- Field Growth 6.1%
- Median Salary \$96,430
- Average Openings 3.7