Programmer, Undergraduate Certificate

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. Stacks into CS BS degree.

Program Requirements

Code	Title	Credit Hours
Total Credit Hours		**30**
Discipline Core Requirements		**21 Credits**
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	Introduction to Academic Writing	3
or ENGL 1005	Foundations of Academic Writing	
Elective Requirements		**9 Credits**
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 2812R	Internship (undefined) (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		
Semester 1		**Credit Hours**
CS 1400	Fundamentals of Programming	3
ENGL 1010 or ENGL 1005	Introduction to Academic Writing or Foundations of Academic Writing	3
Computer Electives		3
	Credit Hours	**9**
Semester 2		
CS 1410	Object Oriented Programming	3

CS 2810	Computer Organization and Architecture	3
Computer Electives		3
	Credit Hours	**9**
Second Year		
Semester 3		
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
	Credit Hours	**12**
	Total Credit Hours	**30**

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 Positions166,700
- Field Growth7.3%
- Median Salary$71,530
- Average Openings12.1

Computer programmers

- Total Positions139,400
- Field Growth-9.6%
- Median Salary$99,700
- Average Openings6.4

Software developers

- Total Positions1,692,100
- Field Growth17.9%
- Median Salary$132,270
- Average Openings125.1

Software quality assurance analysts and testers

- Total Positions205,000
- Field Growth11.8%
- Median Salary$101,800
- Average Openings15.0

Web developers

- Total Positions94,100
- Field Growth9.0%
- Median Salary$84,960
- Average Openings6.6

Web and digital interface designers

- Total Positions128,600
- Field Growth7.9%
- Median Salary$98,540
- Average Openings9.9

Computer science teachers, postsecondary

- Total Positions45,000
- Field Growth6.1%
- Median Salary$96,430
- Average Openings3.7