

# **BS** Computer Science

2019-20

#### What can you do with a BS in Computer Science from SPU?

The BS in Computer Science is the traditional degree in computer science that emphasizes the mathematical and engineering foundations of computing along with software design and development. It prepares you for graduate study or a career in computer science. **Potential occupations** include:

- Computer Game Designer
- Computer SecurityInvestigator
- Information Security Manager
- Internet Applications Programmer
- Network Administrator
- Network Analyst
- Programmer Analyst
- Software Developer
- Software Engineer

- Systems Programmer
- Virtual Reality Programmer
- Web Developer

#### **Suggested Transfer Preparation at Seattle Central College**

Associate of Science-DTA (AS-DTA) or Associate of Science option 2 (AST-2), with careful selection of distribution courses and electives to complete the courses listed below. Students who study Java rather than C++ take CSC 2330 in their first quarter at SPU.

#### Majors with similar requirements in first two years

BS in Computer Engineering

#### Courses in the major you may complete at Seattle Central College

Seattle Central College Courses	Equivalent SPU Courses	
CSC 142 Computer Programming I (5)	CSC 1230 Problem Solving & Programming (5) if CSC 273 is also completed	
CSC 143 Computer Programming II (5)	CSC 2430 Data Structures I (5) if CSC 273 is also completed	
CSC 273 Data Structures Algorithms (5)	CSC 2431 Data Structures II (5)	
MATH& 151 Calculus I (5)	MAT 1234 Calculus I (5)	
MATH& 152 Calculus II (5)	MAT 1235 Calculus II (5)	
MATH& 163 Calculus 3 (5)	MAT 1235 (5)	
MATH& 146 Intro to Statistics (5)	MAT 2360 Intro to Stats for Sciences (5)	
MATH 220 Linear Algebra (5)	MAT 2401 Linear Algebra (5)	
PHYS& 221 Engineering Physics I (5)	PHY 1121 Physics for Science & Engineering (5)	
PHYS& 222 Engineering Physics II (5)	PHY 1122 Physics for Sci & Eng II (5)	
PHYS& 223 Engineering Physics III (5)	PHY 1123 Physics for Sci & Eng III (5	

**Note:** Completion of these courses is not required for transfer, but will aid in timely completion of your degree. Only courses with a regular grade of 1.7 (C-) or higher may count toward a major or minor.

Consult with SPU Computer Science faculty for additional Edmonds CC courses that transfer

#### Admission to the Major

Admission to this major is guaranteed for transfer students admitted to SPU. Once you begin classes at SPU, complete the Major Application form in the Banner Information System to formalize your acceptance to the major.

Learn more about the BS in Computer Science:

http://spu.edu/computer-sci-engineering http://spu.edu/computer-science-bs-regs

## Courses in the major to complete at SPU

EE 1210 Intro to Logic System Design (5)			
CSC 2330 Data Structures and Programming (5)			
CSC 3150 Systems Design (5)			
CSC 3220 Applications Programming (3)			
CSC 3221 Netcentric Computing (3)			
CSC 3310 Concepts in Programming Languages (3)			
CSC 3350 Operating Systems Programming (3)			
CSC 3430 Algorithm Design & Analysis (3)			
CSC 3760 Computer Org and Assembly Language (5)			
CSC 4898 Senior Capstone in CSC (2)			
MAT 2720 Discrete Mathematics (5)			
CPE/EE 3280 Microcontroller System Design (5)			
CSC 3000 CSC Internship Preparation (1)			
CSC 4151 Software Engineering I (3)			
CSC 4152 Software Engineering II (3)			
CSC 4941 (1) CSC Internship Review (1)			
Technical Electives (3 courses; at least 9 credits)			

## **University Foundations Requirement**

All students must complete the University Foundations Requirement at SPU—even those who have completed the Direct Transfer Agreement (DTA) Associate Degree.

Students admitted with fewer than 90 credits (freshmen and sophomores) complete 15 credits:

UFDN 1000 The Christian Faith (5) UFDN 2000 Christian Scriptures (5) UFDN 3100 Christian Theology (5)

Students admitted with 90 credits or more (juniors and seniors) complete 10 credits: UFDN 3001 Christian Scriptures (5) UFDN 3100 Christian Theology (5)

In addition to the major, the degree requires completion of any remaining general education and University requirements, and at least 180 college- level credits total, including 60 upper-division (UD) credits.

# Suggested course plan for your junior and senior years at SPU

Assumes satisfactory completion of CSC 142, 143, and 273; MATH& 151, MATH152, MATH& 163; MATH 146; MATH 220; and PHYS& 221, 222, and 223 prior to transfer.

Junior Year				
AUTUMN	WINTER	SPRING	NOTES	
<ul> <li>CSC 2330 (5)</li> <li>EE 1210 (5 credits)</li> <li>CSC 3000 (1)</li> <li>UFDN 3001 (5)</li> </ul> ANY QUARTER UFDN, General Education ar Begin to work on technical el		<ul> <li>CSC 3221 (3)</li> <li>CSC 3150 (5)</li> <li>MAT 2720 (5)</li> <li>+credits to reach 15-18</li> </ul>	<ul> <li>Complete 45 credits total this year</li> <li>Internship: 200+ hours (usually occurs in the summer between junior and senior year)</li> </ul>	
Senior Year				
AUTUMN	WINTER	SPRING	NOTES	
<ul> <li>CSC 3310 (3)</li> <li>CSC 4898 (2)</li> <li>CSC 4941 (1)</li> <li>Tech Elective (3-5)</li> <li>+credits to reach 15-18</li> </ul>	<ul> <li>CSC 3430 (3)</li> <li>CSC 4151 (3)</li> <li>Tech Elective (3-5)</li> <li>+credits to reach 15-18</li> </ul>	<ul> <li>CSC 3350 (3)</li> <li>CPE/EE 3280 (5)</li> <li>Tech Elective (3-5)</li> <li>CSC 4152 (3)</li> <li>+credits to reach 15-18</li> </ul>	Be sure to complete at least 3 technical electives courses totaling at least 9 credits.	
ANY QUARTER			Be sure you take enough credits to total 180, with at least 60 numbered	

Get more information about transfer admission to Seattle Pacific University at: <a href="http://spu.edu/transfer">http://spu.edu/transfer</a> Questions? Contact <a href="mailto:transfer@spu.edu">transfer@spu.edu</a>