BS in Computer Science

Bachelor of Science in

Computer Science

The BS in Computer Science is for those interested in software and computer systems. It provides a solid foundation in computing, mathematics, and specializations through elective courses and available certificates. Graduating seniors find fulfilling careers in many related areas such as cybersecurity, networks, Internet programming, software and mobile apps development, data science, AI, and graphics, or pursue additional graduate studies. Our vast network of alums has gone on to work for many local and internationally recognized companies, including Bayer, Boeing, Express Scripts, Google, MasterCard, Microsoft, USPS, World Wide Technologies, and more.

Students can complete the program full-time or part-time with a combination of day, evening, and/or online courses, with a possible evening and online completion. Students must also satisfy all UMSL requirements for a BS degree. In addition to university scholarships, the department awards merit-based scholarships.

Required core courses		Availability
CMP SCI 1000	Computer Science Experiences	**SFP**
CMP SCI 1250	Introduction to Computing	**SFP**
CMP SCI 2250	Programming and Data Structures	**SFP**
CMP SCI 2261	Object-Oriented Programming	**SFP**
CMP SCI 2700	Computer Organization and Architecture	**SFP**
CMP SCI 2751	File Systems, Operations, and Tools	**SFP**
CMP SCI 3010	Web Programming	**SFP**
CMP SCI 3130	Design and Analysis of Algorithms	**SFP**
CMP SCI 3260	C/C++ for Advanced Programming	**SFP**
CMP SCI 4250	Programming Languages	**SFP**
CMP SCI 4280	Program Translation Project	**FP**
CMP SCI 4500	Introduction to the Software Profession	**FP**
CMP SCI 4760	Operating Systems	**FP**
MATH 1320	Introduction to Probability and Statistics	**SFP**
MATH 1800	Analytic Geometry and Calculus I	**SFP**
MATH 1900	Analytic Geometry and Calculus II	**SFP**
MATH 2450	Elementary Linear Algebra	**SFP**
MATH 3000	Discrete Structures	**SFP**
ENGL 3130	Technical Writing	**SFP**
Additional Electives		
Four more CMP SCI courses numbered 3000 and above		

For more information, visit umsl.edu/cs. For careers, visit umsl.edu/cs/careers.
This document http://umsl.edu/cs/undergraduate-studies/BSCS_Flyer.pdf
Typical availability: Summer (**S**) Fall (**F**) Spring (**P**)

V2/12/2025