UMSL is a NSA/DHS National Center of Academic Excellence in Cyber Defense Education

UMSL | Computer Science
University of Missouri–St. Louis

College of Arts and Sciences

Department of Computer Science

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Undergraduate Certificate in Computer Programming

The undergraduate certificate in Computer Programming is a five-course (15 credit hour) program. It is designed to provide a quick, yet broad training in technologies leading to secure and interesting careers in computer programming or education. A minimum GPA of 2.5 is required for admission.

A minimum of three courses must be taken from UMSL. Courses may be substituted with the permission of the certificate coordinator. For more information, students can contact the department chair or email info@arch.edu.

Required core courses		Availability
CMP SCI 1250	Introduction to Computing	**FPS**
CMP SCI 2250	Programming and Data Structures	**FPS**
CMP SCI 2261	Object-Oriented Programming	**FPS**
Choose two electives		
CMP SCI 2700	Computer Organization and Architecture	**FPS**
CMP SCI 2750	Linux Environment and Programming	**FPS**
CMP SCI 3010	Web programming	**FPS**
CMP SCI 3130	Design and Analysis of Algorithms	**FPS**
CMP SCI 3702	Introduction to Cyber Threats and Defense	**FP**
CMP SCI 4010	Advanced Web Development with Java	**FP**
CMP SCI 4011	Web Development with Advanced JavaScript	**P**
CMP SCI 4020	Introduction to Android Apps: Android Fund.	**P**
CMP SCI 4200	Python for Data Science	**FP**
CMP SCI 4220	Introduction to iOS Programming and Apps	**S**
CMP SCI 4222	iOS Apps	**F**
CMP SCI 4610	Database Management Systems	**FP**
INFSYS 3844	Developing Business Applications in .NET	**FP**
		5(15)

For more info about Computer Science visit umsl.edu/cs, for careers visit umsl.edu/cs/careers.
For electronic version visit http://umsl.edu/cs/certificates.
Availability: Summer (**S**), Fall (**F**), Spring (**P**)
Mode: Online ⊙ Evening Ⓔ
For course rotation visit https://www.umsl.edu/cmpsci/undergraduate-studies/3yearcourse.html

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