COMPUTER SCIENCE, B.S. TO SOFTWARE ENGINEERING, M.S. ACCELERATED PROGRAM

This program allows a student to complete, in accelerated fashion, both the Bachelor in Science in Computer Science and the Master of Science in Software Engineering.

For additional information see the catalog entries for the following programs:

Computer Science, B.S. (http://catalog.slu.edu/colleges-schools/arts-sciences/computer-science/computer-science-bs)

Software Engineering, M.S. (http://catalog.slu.edu/colleges-schools/arts-sciences/computer-science/software-engineering-ms)

Requirements

Students wishing to apply to this accelerated program should have completed all 2000-level coursework required of the computer science bachelor's program and have completed at least 75 credits at the time of application. At the time of application, students must have a cumulative GPA of at least 3.00 and a GPA of at least 3.00 in their computer science coursework.

To apply, students must submit a personal statement and arrange for two letters of recommendation from computer science faculty members.

Continuation Standards

Students must maintain a cumulative GPA of at least 3.00 and a GPA of at least 3.00 in their computer science coursework.

Students who drop below that GPA while in the accelerated program will be place on a one-semester probationary period before being dismissed from the accelerated program.

Roadmap

Roadmaps are recommended semester-by-semester plans of study for programs and assume full-time enrollment unless otherwise noted.

Courses and milestones designated as critical (marked with !) must be completed in the semester listed to ensure a timely graduation. Transfer credit may change the roadmap.

This roadmap should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor/mentor each semester. Requirements, course availability and sequencing are subject to change.

Course	Title	Credits
Year One		
Fall		
! CSCI 10xx (p. 2)	Introduction to Computer Science	3
!MATH 1510	Calculus I	4
MATH 1660	Discrete Mathematics	3
! Core	Foreign Language 1010	3
ENGL 1900 or ENGL 1940	Advanced Strategies Of Rhetoric and Research or Advanced Writing	3
	Credits	16
Spring		
!CSCI 1300	Introduction to Object-Oriented Programming	4
MATH 1520	Calculus II	4
THEO 1000	Theological Foundations	3
Core	Foreign Language 1020	3
	Credits	14
Year Two		
Fall		
!CSCI 2100	Data Structures	4
MATH 2xxx	Additional Mathematics (2000+)	3
Science I with lab		4
PHIL 2050	Ethics	3
	Credits	14
Spring		
!CSCI 2300	Object-Oriented Software Design	3
!CSCI 2400	Computer Architecture	3
Science II with Lab (must be in same discipline as Science I to form sequence)		4
PHIL 3410	Computer Ethics	3
Core	Fine and Performing Arts	
	Credits	13
Year Three		
Fall		
!CSCI 3100	Algorithms	3
!CSCI 3500	Operating Systems	3
MATH 2xxx	Additional Mathematics (2000+)	3
HIST 1110	Origins of the Modern World to 1500	3
Core	Social Science	3
	Credits	15
Spring		
!CSCI 3200	Programming Languages	3
!CSCI 3300	Software Engineering	3
MATH 2xxx	Additional Mathematics (2000+)	3
HIST 1120	Origins of the Modern World, 1500 to Present	3
Additional Science		4
	Credits	16
Year Four		
Fall		
!CSCI 4961	Capstone Project I	2
!CSCI 5030	Principles of Software Development (! only counted toward graduate degree)	3
! CSCI 5xxx	CSCI 5000+Graduate Elective	3
! Core	Theology 2xxx	3
! Applied Systems Course (p. 2)		3
Core	Social Science	3
	Credits	17

Spring		
!CSCI 4962	Capstone Project II	2
! CSCI 51xx	CSCI 5000+ Elective	3
Core	Literature	3
Core	Global Citizenship	3
Core	Cultural Diversity in the U.S.	3
General Elective		3
	Credits	17
Year Five		
Fall		
!CSCI 5030	Principles of Software Development	3
!CSCI 5050	Computing and Society	3
Software Engineering Elective	Software Engineering courses numbered CSCI5300-5399	3
CSCI Graduate Elective	The general electives may include additional selections from the Software Engineering category	3
	Credits	12
Spring		
!CSCI 5960	Capstone Project	3
! Software Engineering Elective	Software Engineering courses numbered CSCI5300-5399	3
! Software Engineering Elective	Software Engineering courses numbered CSCI5300-5399	3
	Credits	9
	Total Credits	143

Introduction to Computer Science

Code	Title	Credits
CSCI 1010	Introduction to Computer Science: Principles	
CSCI 1020	Introduction to Computer Science: Bioinformatics	
CSCI 1030	Introduction to Computer Science: Game Design	
CSCI 1040	Introduction to Computer Science: Mobile Computing	
CSCI 1050	Introduction to Computer Science: Multimedia	
CSCI 1060	Introduction to Computer Science: Scientific Programming	
CSCI 1070	Introduction to Computer Science: Taming Big Data	
CSCI 1080	Introduction to Computer Science: World Wide Web	
CSCI 1090	Introduction to Computer Science: Special Topics	
With permission, a computing-intensive course from another discipline may be substituted. Examples of such courses include:		
BME 2000	BME Computing	
CVNG 1500	Civil Engineering Computing	
STAT 3850	Foundation of Statistics	

Applied Systems Courses

Code	Title	Credits
CSCI 3650	Computer Networks	
CSCI 3710	Databases	
CSCI 4650	Computer Security	
CSCI 4850	High-Performance Computing	

Program Notes

Internship with Industry

Students may apply at most 3 credits of Internship with Industry (CSCI 5910) toward the degree requirements.