

COMPUTER SCIENCE, MINOR TO BIOINFORMATICS AND COMPUTATIONAL BIOLOGY, M.S. ACCELERATED PROGRAM

Saint Louis University's computer science minor to bioinformatics and computational biology M.S. accelerated program allows a SLU student to complete both a minor in computer science and a Master of Science in Bioinformatics and Computational Biology.

Students may choose to pursue a minor in computer science in addition to their chosen bachelor's degree major.

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

Computer Science, Minor (<https://catalog.slu.edu/colleges-schools/science-engineering/computer-science/computer-science-minor/>)

Bioinformatics and Computational Biology, M.S. (<https://catalog.slu.edu/colleges-schools/science-engineering/computer-science/bioinformatics-computational-biology-ms/>)

Requirements

Students who want to apply to this accelerated minor to master's program should have completed at least 75 credits at the time of application and must have already completed or be enrolled in CSCI 2100 Data Structures.

Students must have a cumulative grade point average (GPA) of 3.00 at SLU and must have received grades of "B" or better in all CSCI courses thus far. To apply, students must submit a personal statement and arrange for two letters of recommendation.

Non-Course Requirements

All Science and Engineering B.A. and B.S. students must complete an exit interview/survey near the end of their bachelor's program.

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 placed 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		
Courses for major and core		15
Credits		15
Spring		
Courses for major and core		15
Credits		15
Year Two		
Fall		
Courses for major and core		12
MATH 1510	Calculus I	4
Credits		16
Spring		
CSCI 10xx (p. 2)	Introduction to Computer Science	3
MATH 1520	Calculus II	4
Courses for major and core		9
Credits		16
Year Three		
Fall		
CSCI 1300	Introduction to Object-Oriented Programming	4
MATH 1660	Discrete Mathematics	3
Courses for major and core		9
Credits		16
Spring		
CSCI 2100	Data Structures	4
Courses for major and core		12
Credits		16
Year Four		
Fall		
CSCI 5030	Principles of Software Development	3
Courses for major and core		12
Credits		15
Spring		
CSCI 5300	Software Engineering	3
Courses for major and core		12
Credits		15
Year Five		
Fall		
CSCI 5050	Computing and Society	3
Software Engineering Elective	Software Engineering courses numbered CSCI5300-5399	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

Software Engineering Elective	Software Engineering courses numbered CSCI5300-5399	3
Graduate Elective (p.)		3
Graduate Elective (p.)		3
CSCI 5960	Software Engineering Capstone Project	3
Credits		12
Total Credits		148

Introduction to Computer Science

Code	Title	Credits
CSCI 1010	Introduction to Computer Science: Principles	
CSCI 1020	Introduction to Computer Science: Bioinformatics	
CSCI 1025	Introduction to Computer Science: Cybersecurity	
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	Biomedical Engineering Computing
CVNG 1500	Civil Engineering Computing
STAT 3850	Foundation of Statistics

Program Notes**Internship with Industry**

Students may apply at most three credits of CSCI 5910 Internship with Industry (1-3 cr) toward the degree requirements.