COMPUTER SCIENCE, B.A. TO ARTIFICIAL INTELLIGENCE, M.S. ACCELERATED PROGRAM

This program allows a student to complete, in an accelerated fashion, both the Bachelor of Arts in Computer Science and the Master of Science in Artificial Intelligence at Saint Louis University.

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

Computer Science, B.A. (https://catalog.slu.edu/colleges-schools/science-engineering/computer-science/computer-science-ba/)

Artificial Intelligence, M.S. (https://catalog.slu.edu/colleges-schools/science-engineering/computer-science/artificial-intelligence-ms/)

Requirements

Admission Requirements

Students who wish 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.

Contact the graduate coordinator for more details.

Program Requirements

Students must maintain a cumulative GPA of at least 3.00 and a GPA of at least 3.00 in their computer science coursework. Only grades of B or better in the graduate courses taken while an undergraduate can be applied to the master's degree. 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.

Students can take up to 15 credits of graduate coursework that will count for both the B.A. and M.S. Courses and credits included are below.

Undergraduate Program Requirement	Met by Graduate Course
3-credit Systems Elective at the 3000-level	Systems Elective at the 5000-level
CS Elective at the 3000-level or above	CSCI 5750
CS Elective at the 3000-level or above	CSCI 5740
6 credits of CSCI Electives	6 credits of AI Electives

Roadmap

This roadmap is just one example of a semester-by-semester plan of study for this program. There are other plans students can and do take. The plan of study for each particular student is established in consultation with each student's academic advisor; *this roadmap does not replace academic advising appointments.*

Roadmap notes:

- This Roadmap assumes full-time enrollment unless otherwise noted.
- Courses/Milestones marked with an "!" are critical and must be completed in the semester listed in the Roadmap to ensure a timely graduation.
- Course availability and sequencing are subject to change.

Course	Title	Credits
Year One		
Fall		
CSCI 10xx (p. 2)	Introduction to Computer Science †	3
MATH 1660	Discrete Mathematics	3
University Core and/or General Electives		9
	Credits	**15**
Spring		
CSCI 1300	Introduction to Object-Oriented Programming	4
MATH 1510	Calculus I	4
University Core and/or General Electives		6
	Credits	**14**
Year Two		
Fall		
CSCI 2100	Data Structures	4
CSCI 2500	Computer Organization and Systems	3
MATH 1520	Calculus II	4
University Core and/or General Electives		6
	Credits	**17**
Spring		
CSCI 2300	Object-Oriented Software Design	3
CSCI 2510	Principles of Computing Systems	3
MATH 3850	Foundation of Statistics	3
University Core and/or General Electives		6
	Credits	**15**
Year Three		
Fall		
CSCI 3100	Algorithms	3
University Core and/or General Electives		12
	Credits	**15**
Spring		
5000-level version of CSCI Systems Elective		3
PHIL 3050X	Computer Ethics	3
University Core and/or General Electives		9
	Credits	**15**
Year Four		
Fall		
CSCI 4961	Capstone Project I	2
CSCI 5750	Introduction to Machine Learning	3
University Core and/or General Electives		6
Graduate AI Elective		3
	Credits	**14**
Spring		
CSCI 4962	Capstone Project II	2
University Core and/or General Electives		6

CSCI 5740	Introduction to Artificial Intelligence	3
Graduate AI Elective		3
	Credits	**14**
Year Five		
Fall		
CSCI 5030	Principles of Software Development	3
Artificial Intelligence Principles course		3
Artificial Intelligence Applications course		3
	Credits	**9**
Spring		
CSCI 5961	Artificial Intelligence Capstone Project	3
CSCI 5xxx	General Elective [a]	3
	Credits	**6**
	Total Credits	**134**

a Waiver replacement for CSCI 5050: Computing and Society

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 as long as it is not already fulfilling another requirement. Examples of such courses include:		
BME 2000	Biomedical Engineering Computing	
CVNG 1500	Civil Engineering Computing	
STAT 3850	Foundation of Statistics	

Systems

Code	Title	Credits
CSCI 4500	Operating Systems	
CSCI 4530	Computer Security	
CSCI 4550	Computer Networks	
CSCI 4610	Concurrent and Parallel Programming	
CSCI 4620	Distributed Computing	

Program Notes

CSCI 5050 Computing and Society (3 cr) requirement will be waived for students who took Computer Ethics as an undergraduate. These hours would become an additional graduate elective.

Thesis Option

A master's thesis is optional. Students completing a thesis should take six credits of CSCI 5990 Thesis Research (0-6 cr) as part of the elective requirements.

Internship with Industry

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

Closely Related Disciplines

With approval, students may include up to six credits of elective graduate coursework in closely related disciplines (e.g., mathematics and statistics, bioinformatics and computational biology, electrical and computer engineering).

Madrid

Students at Saint Louis University-Madrid can complete the first three or four years of their accelerated program at SLU-Madrid and then finish their M.S. at SLU-St. Louis.

Depending on the format of their M.S., students will transition before their fourth or fifth year of study. Options are listed below.

Option A: 3+2 Pathway (Thesis)

- Years 1-3: Students complete foundational coursework in Madrid.
- Years 4-5: Final year of B.A. and M.S. coursework/research completed in St. Louis. Students begin capstone research work in St. Louis in year four, which transitions into a formal M.S. thesis project and completion in year five.

Option B: 4+1 Research-Linked Pathway (Thesis)

- Years 1-4: Full B.A. completion in Madrid, including a senior capstone research project initiated under the guidance of SLU-Madrid faculty, in collaboration with St. Louis faculty. Students also complete the first 15 credits of M.S.-level coursework (5xxx level; potentially through online courses when available from STL campus).
- Year 5: Students matriculate fully into the M.S. program to continue and complete their research thesis and the remaining 15 credits of M.S. coursework in St. Louis.

Option C: 4+1 Coursework-Based Pathway (Nonthesis)

- Years 1-4: Students complete B.A. in Madrid and the first 15 credits of their MS coursework (5xxx level; potentially through online courses when available from STL campus).
- Year 5: Remaining 15 credits of M.S. coursework is completed in St. Louis.

Contact Us

For more information about computer science programs, please call 314-977-6667 or email cs@slu.edu.