COMPUTER SCIENCE + ART, B.A.

What does it look like when a programmer has aesthetic vision? When an artist can write the algorithm behind their own work? Saint Louis University's Bachelor of Arts in Computer Science + Art program is for students who refuse to choose between making things and building things. You will graduate from SLU fluent in both worlds — able to create work that neither discipline alone could imagine.

Curriculum Overview

- Software engineering, web development, and interactive systems
- Studio practice in design for computers and real-world mediums
- Interactive installation, physical computing and new media art history

Experiential and Applied Learning

- Studio critiques where your technical work is evaluated as art
- Internships with creative agencies, game studios and interactive design firms

Careers

- Creative technologist, generative artist, game designer, UX designer
- Creative director, digital experience designer, arts technology educator
- Typical entry salary: $55,000 – $105,000

Tuition

Tuition/Fee	Cost Per Year
Undergraduate Tuition	$58,960
University Fees	$1,000

Additional charges may apply. Other resources are listed below:

Net Price Calculator (https://www.slu.edu/financial-aid/tuition-and-costs/calculator.php)

Cost of Attendance (https://www.slu.edu/financial-aid/tuition-and-costs/cost-of-attendance.php)

Information on Tuition and Fees (https://catalog.slu.edu/academic-policies/student-financial-services/tuition/)

Miscellaneous Fees (https://catalog.slu.edu/academic-policies/student-financial-services/fees/)

Information on Summer Tuition (https://catalog.slu.edu/academic-policies/student-financial-services/tuition-summer-current/tuition-summer-current.pdf)

Scholarships and Financial Aid

For more information about Saint Louis University scholarships and financial aid, please visit the Office of Student Financial Services (https://www.slu.edu/financial-aid/types-of-aid/).

Learning Outcomes

1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, evaluate and test a software system that meets a given set of computing requirements.
3. Apply computer science theory, knowledge of computer systems and software development fundamentals to produce computing-based solutions.
4. Communicate effectively to both professional and general audiences in both oral and written forms.
5. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
6. Function effectively as a member of a team in developing computing technology and solving technical problems.
7. Synthesize computational methods and artistic practice to produce work that demonstrates aesthetic intention, technical fluency, and critical awareness of computation as a creative medium.

Requirements

Code	Title	Credits
University Undergraduate Core (https://catalog.slu.edu/academic-policies/academic-policies-procedures/university-core/)		**32-35**
Major Requirements		**71**
Select a CSCI 10xx: Introduction to Computer Science (p. 2)		3
CSCI 1300	Introduction to Object-Oriented Programming	4
CSCI 2100	Data Structures	4
CSCI 2300	Object-Oriented Software Design	3
CSCI 2500	Computer Organization and Systems	3
CSCI 2510	Principles of Computing Systems	3
CSCI 3100	Algorithms	3
CSCI 4961	Capstone Project I	2
CSCI 4962	Capstone Project II	2
Select one Systems Elective course (p. 2)		3
Two additional 3000 or 4000 level CSCI elective courses		6
Required Mathematics Courses		
MATH 1510	Calculus I	4
MATH 1520	Calculus II	4
MATH 1660	Discrete Mathematics	3
STAT 3850	Foundation of Statistics	3
Required Computer Ethics		
PHIL 3050X	Computer Ethics	3
Art Requirements		
ART 2000	Drawing I	3
ART 2500	Computer Art I	3
Three-dimensional Art		*3*
Select a course in a three-dimensional medium from the following courses:		
ART 2120	Introduction to Three Dimensional Design	
ART 2450	Sculpture I	
ART 2400	Ceramics I	
ART 2480	Fibers and Textiles	

CS + Art Electives		*9*
Choose 9 additional hours from:		
ART 2650	Digital Photography	
ART 2700	Graphic Design I	
ART 3500	Computer Art II	
ART 3700	Graphic Design II	
ART 4500	Computer Art Studio	
ART 4700	Graphic Design Studio	
University Electives		**14-17**
Total Credits		**120**

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 Electives Courses

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	

Non-Course Requirements

All School of 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

After declaring a computer science major, students must achieve a minimum GPA of 2.00 in computer science courses by the conclusion of their second year as a major and maintain such a GPA at the conclusion of each semester thereafter. Furthermore, students should require at most two attempts to successfully complete any computer science courses required for the major (where an unsuccessful attempt is considered a "D" or "F" for courses numbered 2100 and lower, and an "F" in higher-level courses).

Students are also expected to make adequate progress in the major, typically by enrolling in at least one computer science course per semester until completing their coursework (with exceptions made for premed scholars during their first year, and all students if studying abroad or facing other such extenuating circumstances).

Program Notes

At most, three credit hours of internship with industry courses can be applied to the degree.

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	Introduction to Computer Science	3
MATH 1660	Discrete Mathematics	3
CORE 1000	Ignite First Year Seminar	2
CORE 1900	Eloquentia Perfecta 1: Written and Visual Communication	3
ART 2000	Drawing I	3
CORE 1500	Cura Personalis 1: Self in Community	1
	Credits	**15**
Spring		
CSCI 1300	Introduction to Object-Oriented Programming	4
MATH 1510	Calculus I	4
ART 2500	Computer Art I	3
CORE 1600	Ultimate Questions: Theology	3
CORE 1700	Ultimate Questions: Philosophy	3
	Credits	**17**
Year Two		
Fall		
MATH 1520	Calculus II	4
CSCI 2100	Data Structures	4

ART 2120 or ART 2450 or ART 2400 or ART 2480	Introduction to Three Dimensional Design or Sculpture I or Ceramics I or Fibers and Textiles	3
CORE 2500	Cura Personalis 2: Self in Contemplation	0
CORE 3400	Ways of Thinking: Aesthetics, History, and Culture	3
	Credits	**14**
Spring		
CSCI 2500	Computer Organization and Systems	3
CSCI 2300	Object-Oriented Software Design	3
STAT 3850	Foundation of Statistics	3
CORE 3800	Ways of Thinking: Natural and Applied Sciences	3
University Elective		3
	Credits	**15**
Year Three		
Fall		
CSCI 2510	Principles of Computing Systems	3
CSCI 3000-level or 4000-level Elective		3
CS + Art Elective		3
CORE 1200	Eloquentia Perfecta 2: Oral and Visual Communication	3
CORE 3600	Ways of Thinking: Social and Behavioral Sciences	3
	Credits	**15**
Spring		
PHIL 3050X	Computer Ethics	3
CSCI 3000-level or 4000-level Elective		3
CS + Art Elective		3
Systems Elective Course		3
CORE	Eloquentia Perfecta: Writing Intensive	3
	Credits	**15**
Year Four		
Fall		
CSCI 4961	Capstone Project I	2
CSCI 3100	Algorithms	3
CORE 3500	Cura Personalis 3: Self in the World	1
CORE 4000	Collaborative Inquiry	3
CS + Art Elective		3
CORE	Equity and Global Identities: Global Interdependence	3
	Credits	**15**
Spring		
CSCI 4962	Capstone Project II	2
CORE 4500	Reflection-in-Action	0
CORE	Equity and Global Identities: Identities in Context	3
University Electives		9
	Credits	**14**
	Total Credits	**120**

Contact Us

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