COMPUTER SCIENCE + SOCIOLOGY, B.A. (BEGINNING FALL 2026)

Data about people is everywhere — in census records, health systems, and housing markets. But data without sociological interpretation produces maps without meaning. With specialized coursework in GIS, demography, and spatial demography, the Computer Science + Sociology, B.A. program builds students who can compute and think critically at the same time — asking not just what the data shows, but what it means and for whom.

Curriculum Overview

- Database systems, statistical computing, and data visualization
- Sociological theory, research methods, and social stratification
- GIS and spatial analysis: ArcGIS, QGIS, Python geopandas, R spatial
- Demography and spatial demography: population data and geographic inequality

Experiential and Applied Learning

- Partnerships with planning agencies, public health departments, and nonprofits
- Internships with GIS firms, urban planning offices, and statistical agencies
- Research placements with SLU faculty in sociology and public health

Careers

- GIS Analyst · Demographer · Urban Planner · Public Health Data Analyst
- Social Data Scientist · Environmental Justice Researcher · Census Analyst
- Typical entry salary: $55,000 – $95,000

Tuition

Tuition/Fee	Cost Per Year
Undergraduate Tuition	$56,960

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/).

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. Apply fundamental techniques from computer science to solve relevant problems in sociology or use techniques and knowledge from sociology to deepen and inform a computer-science based project.

Requirements

Code	Title	Credits
University Undergraduate Core (https://catalog.slu.edu/academic-policies/academic-policies-procedures/university-core/)		**32-35**
Major Requirements		**74**
CSCI 10XX	Introduction to Computer Science	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
Systems Elective course		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
Sociology Requirements		
SOC 1110	Introduction to Sociology: Diversity Emphasis	3
or SOC 1120	Introduction to Sociology: Diversity and Health Emphasis	
SOC 2000	Research Methods	3
SOC 3150X	Anthropological Theory	3
CS + Sociology Electives		*12*
Select two of the following courses		
SOC 1500	The Urban Community: Race, Class, and Spatial Justice	
SOC 1600	The Power of Place: An Introduction to GIS	
SOC 2010	Statistics and the Social World	
SOC 2610	Mapping Urban Inequity	
SOC 3600	Cartography for Social Justice	
SOC 3615	Our World in Big Data	
SOC 4640	Demographic Methods, Analysis, and Public Policy	

SOC 4660	Intermediate Geographic Information Systems	
SOC 4670	Spatial Demography – Applied Spatial Statistics	
Select two courses with a Sociology Elective attribute		
ANTH 2200	Cultural Anthropology	
SOC 2490	Sociology of Medicine	
SOC 3180	Immigration	
University Electives		11-14
Total Credits		**120**

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

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	Introduction to Computer Science	3
MATH 1660	Discrete Mathematics	3
CORE 1700	Ultimate Questions: Philosophy	3
CORE 1000	Ignite First Year Seminar	2
CORE 1900	Eloquentia Perfecta 1: Written and Visual Communication	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
CORE 1600	Ultimate Questions: Theology	3
CORE	Equity and Global Identities: Identities in Context	3
University Elective		3
	Credits	**17**
Year Two		
Fall		
MATH 1520	Calculus II	4
CSCI 2100	Data Structures	4
SOC 2000	Research Methods	3
SOC 1110 or SOC 1120	Introduction to Sociology: Diversity Emphasis or Introduction to Sociology: Diversity and Health Emphasis	3
CORE 2500	Cura Personalis 2: Self in Contemplation	0
	Credits	**14**
Spring		
CSCI 2500	Computer Organization and Systems	3
CSCI 2300	Object-Oriented Software Design	3
STAT 3850	Foundation of Statistics	3
SOC 3150X	Anthropological Theory	3
CORE 3400	Ways of Thinking: Aesthetics, History, and Culture	3
	Credits	**15**
Year Three		
Fall		
CSCI 2510	Principles of Computing Systems	3
CSCI 3000-level or 4000-level elective		3
CS + Sociology Elective		3
CORE 1200	Eloquentia Perfecta 2: Oral and Visual Communication	3
CORE 3500	Cura Personalis 3: Self in the World	1
CORE	Equity and Global Identities: Global Interdependence	3
	Credits	**16**
Spring		
CSCI 3000-level or 4000-level elective		3
PHIL 3050X	Computer Ethics	3
CORE 3800	Ways of Thinking: Natural and Applied Sciences	3
CS + Sociology Elective		3
Systems Elective		3
	Credits	**15**
Year Four		
Fall		
CSCI 4961	Capstone Project I	2
CSCI 3100	Algorithms	3

CORE 4500	Reflection-in-Action	0
CS + Sociology Elective		3
University Elective		3
CORE	Eloquentia Perfecta: Writing Intensive	3
	Credits	**14**
Spring		
CSCI 4962	Capstone Project II	2
CORE 2800	Eloquentia Perfecta 3: Creative Expression	3
CORE 4000	Collaborative Inquiry	3
CS + Sociology Elective		3
University Elective		3
	Credits	**14**
	Total Credits	**120**

Contact Us

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