

COMPUTER SCIENCE (MINOR)

This program was approved for students entering the university in the Summer 2024–Spring 2025 catalog year. For more information about catalog year, go to Catalog Year Information (<https://catalog.louisville.edu/undergraduate/university-wide-unit-specific-policies/catalog-year/>).

Minor in Computer Science

Unit: Speed School of Engineering (<http://engineering.louisville.edu>) (SS)

Department: Computer Science and Engineering (<http://engineering.louisville.edu/computer/>)

Academic Plan Code: CS MINOR

Program Requirements

The minor in Computer Science (CS) program is for undergraduate students who are majoring in disciplines other than Computer Science and Engineering. The CS minor requires successful completion of 18 credit hours with a GPA of 2.25 or higher.

Code	Title	Hours
Prerequisites		
MATH 180	Elements of Calculus - QR (https://catalog.louisville.edu/undergraduate/general-education-requirements/) (or Equivalent) ¹	3

Admission Requirements

Minimum cumulative GPA: 2.25

Minimum grade in MATH 180 (or equivalent): C-

Minimum number of hours completed: Sophomore standing

Code	Title	Hours
CS Core Requirements		
CSE 130	Introduction to C and C++ Programming Languages	3
CSE 302	Data Structures	3
CSE 310	Discrete Structures	3
Choose one course from the following list:		3
CSE 120	Introduction to Programming with Python	
CSE 350	Introduction to Software Engineering (Prerequisite: CSE 302 and CSE 220)	
CS Depth Requirements		6
Choose two courses from the following list: ²		
CSE 419	Introduction to Algorithms (Prerequisites: CSE 302, CSE 310)	
CSE 420	Design of Operating Systems (Prerequisite: CSE 302)	
CSE 470	Mobile Device Programming	
CSE 504	Automata Theory (Prerequisite: CSE 310)	
CSE 528	Game Design and Programming (Prerequisite: CSE 302)	
CSE 530	Design of Compilers (Prerequisite: CSE 420)	
CSE 532	Python and Data Analytics	
CSE 535	Database Systems (Prerequisite: CSE 302)	
CSE 538	Graph Database and Graph Analytics	

CSE 545	Artificial Intelligence (Prerequisites: CSE 302, CSE 310)
CSE 546	Introduction to Machine Learning
CSE 547	Deep Learning Algorithms and Methods
CSE 550	Software Engineering (Prerequisite: CSE 420)
CSE 564	Introduction to Cryptography
CSE 565	Software Security

Minimum Total Hours **18**

NOTE: At least 9 semester hours must be successfully completed while enrolled at the University of Louisville.

¹ Fulfills General Education requirement.

² Some courses listed under CS Depth requirements may need further prerequisites to be satisfied.