

COMPUTER SCIENCE MAJOR

Major Requirements

There are two concentrations for this major: computing and data analytics. The computing concentration will prepare students with the necessary technical skills to serve the computing needs of any discipline. A concentration in data analytics would offer students the opportunity to build a foundational understanding of the ideas, concepts, and techniques that are central to using data in research and decision-making.

The requirements for a **major in computer science** are 46-53 credits:

Code	Title	Hours
Required Supporting Courses		
MATH 121	Calculus I	4
Core Courses		
CSC 125	Introduction to Computer Science	4
CSC 225	Fundamental Structures	4
DATA 200	Introduction to Data Analytics	4
CSC 310	Web Design and Programming	3
CSC 330	Introduction to Database Management	3
CSC 430	Principles of Programming Languages	3
CSC 445	Intro to Computer Security	3
Interdisciplinary Electives		
Select 3-4 credits from the following:		3-4
ART 370	Digital Design	
ART 378	Web and User Experience Design I	
BIOL/ENVR 360	Introduction to Geographic Information Systems (GIS)	
HIST 325	Doing Digital History	
MATH/CSC 335	Operations Management/Research	
	or BUSN 460 Operations Mgmt/Research	
BUSN 415	Electronic Commerce Strategy	
Concentration		
Computer science majors must select one concentration from the following:		15-21
	Computing	
	Data Analytics	
Total Hours		46-53

Concentrations for a Major in Computer Science

Computing Concentration

Computing Concentration requires 18-21 credits:

Code	Title	Hours
CSC 340	Principles of Software Engineering	3
CSC 420	Operating Systems	3
CSC 470	Applied Software Project	3
3 computer science elective courses numbered 200 or above		9-12
Total Hours		18-21

Data Analytics Concentration

Data Analytics Concentration requires 15-16 credits:

Code	Title	Hours
12 credits of data elective courses numbered 300 or above		12
One computer science elective course numbered 200 or above		3-4
Total Hours		15-16

Degree and Graduation Requirements

In addition to the program-specific requirements listed above, all students must complete the graduation requirements specified for their degree. See the Degree and Graduation Requirements (<https://catalog.concordiacollege.edu/undergraduate-academic-community/degree-graduation-requirements/>) section for more information.