

Computer Science Major Requirements (13.25 credits) [updated Sp25]

[prerequisites are shown in brackets; ^ 0.5 credits]

<p>Core Courses (6.75 credits)</p> <p>CSCI 100: Scientific Computing or CSCI 102: Multimedia Computing CSCI 112: Object Oriented Programming [CS100/102 or placement] CSCI 120: Data Structures and Algorithms & lab (1.25 credits) [CS112 or placement] CSCI 200: Algorithm Analysis [CS120+M110+M130] CSCI 230: Software Engineering (W) [CS120] MATH 110: Applied Differential Calculus^ [M105 or placement] MATH 130: Mathematical Foundations of Computing [any CS course]</p>
<p>Elective Theory Courses (1 credit) Take one of the following:</p> <p>CSCI 220 Theory of Computation [CS120+M130] CSCI 222 Programming Languages [CS120] MATH223 Combinatorics & Graph Theory [M115 or M120 or M121 or M130] MATH327 Numerical Analysis [M221+CS 112]</p>
<p>Elective Systems Courses (1 credit) Take one of the following:</p> <p>CSCI 210 Principles of Comp. Organization [CS120] CSCI 212 Operating Systems [CS120] CSCI 214 Database Systems [CS112]</p>
<p>Elective Applications Courses (2 credit) Take two of the following:</p> <p>CSCI 300: Computer Graphics and Game Development [CS2xx+M110+M130] CSCI 310: Machine Intelligence [CS2xx+M110+M130] CSCI 320: User Interface Design [CS120] or DATA 325 Applied Data Science [D106+D230 or Buec299] CSCI 330: Computer Networking and Communication [CS120] (CS310 can be replaced with D325; one CS elective can be replaced with either M223 or M327)</p>
<p>Independent Study (2.5 credits)</p> <p>CSCI 401: Junior I.S.^ [CS 120+CS2xx+W] CSCI 451: Senior I.S. [CS401] CSCI 452: Senior I.S. [CS451]</p>

Computer Science Minor (7.75 credits)

CSCI 100 or 102; CSCI 112; CSCI 120; MATH 110; MATH 130; and
three full-credit CSCI 2xx/3xx courses

(CS310 can be replaced with D325; one CS elective can be replaced with either M223 or M327)

- CS majors or minors may also minor in Statistical & Data Sciences, but no other major/minor combinations between these two fields are allowed.
- Junior I.S. is fulfilled through CSCI 200 and CSCI 401.
- A score of 4 or 5 on the AP Computer Science A exam gives credit for CSCI 100. Students with AP credit who place into MATH 115 (Calculus 2) or higher may also skip CSCI 112 and start in 120.
- AP Calculus or IB Higher Level math scores can give credit for MATH 110 and/or MATH 120. Students with calculus experience but no AP/IB scores can place out via the department's calculus placement exam.
- A score of 7/7 on the Wooster CS placement test waives CS 100+112 and places students in CS 120; a score of 5/7 or 6/7 waives CS 100 and places students in CS 112; a score of 4 or less places students in CS 100/102.

Year 1: 2024-25

Fall	Spring
100 Scientific Computing * 2	100 Scientific Computing * 2
102 Multimedia Computing * 2	105 Applied AI
112 Object-Oriented Programming * 1	112 Object-Oriented Programming* 2
120 Data Structures and Alg. + Labs	120 Data Structures and Alg. + Lab
212 Operating Systems	200 Algorithm Analysis
230 Software Engineering W	214 Database Systems
279 Pb Seminar (0.25)	222 Programming Languages
310 Machine Intelligence	320 User Interface Design
[399 Special Topics]	401 Junior I.S. (0.5)
401 Junior I.S. (0.5)	Math 110 Calculus (0.5)
Math 110 Calculus (0.5)	Math 130 Mathem. Found. of Comp.
	[Math 223; Math 327; Data 325]

Year 2: 2025-26

Fall	Spring
100 Scientific Computing * 2	100 Scientific Computing * 2
102 Multimedia Computing * 2	105 Applied AI
112 Object-Oriented Programming * 1	112 Object-Oriented Programming * 2
120 Data Structures and Alg. + Labs (0.5)	120 Data Structures and Alg. + Labs (0.5)
210 Computer Organization	200 Algorithm Analysis
230 Software Engineering W	214 Database Systems
279 Pb Seminar (0.25)	220 Theory of Computation
300 Computer Graphics and Game Development	330 Computer Networking and Comm.
[399 Special Topics; Web Development]	[399 Special Topics; Design Patterns]
401 Junior I.S. (0.5)	401 Junior I.S. (0.5)
Math 110 Calculus (0.5)	Math 110 Calculus (0.5)
	Math 130 Mathem. Found. of Comp.
	Math 223 Combinatorics and Graph Theory Math 327 Numerical Analysis Data 325 Applied Data Science

