

**Computer Science Major Requirements** (13.25 credits) [updated Sp25]  
 [prerequisites are shown in brackets; ^ 0.5 credits]

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| <p align="center"><b>Core Courses</b> (6.75 credits)</p> <p>CSCI 100: Scientific Computing or CSCI 102: Multimedia Computing<br/>                     CSCI 112: Object Oriented Programming [CS100/102 or placement]<br/>                     CSCI 120: Data Structures and Algorithms &amp; lab (1.25 credits) [CS112 or placement]<br/>                     CSCI 200: Algorithm Analysis [CS120+M110+M130]<br/>                     CSCI 230: Software Engineering (W) [CS120]<br/>                     MATH 110: Applied Differential Calculus^ [M105 or placement]<br/>                     MATH 130: Mathematical Foundations of Computing [any CS course]</p> |
| <p align="center"><b>Elective Theory Courses</b> (1 credit) Take one of the following:</p> <p>CSCI 220 Theory of Computation [CS120+M130]<br/>                     CSCI 222 Programming Languages [CS120]<br/>                     MATH223 Combinatorics &amp; Graph Theory [M115 or M120 or M121 or M130]<br/>                     MATH327 Numerical Analysis [M221+CS 112]</p>  |
| <p align="center"><b>Elective Systems Courses</b> (1 credit) Take one of the following:</p> <p>CSCI 210 Principles of Comp. Organization [CS120]<br/>                     CSCI 212 Operating Systems [CS120]<br/>                     CSCI 214 Database Systems [CS112]</p>   |
| <p align="center"><b>Elective Applications Courses</b> (2 credit) Take two of the following:</p> <p>CSCI 300: Computer Graphics and Game Development [CS2xx+M110+M130]<br/>                     CSCI 310: Machine Intelligence [CS2xx+M110+M130] or DATA 325 Applied Data Science [D106+D230or Buec299]<br/>                     CSCI 320: User Interface Design [CS120]<br/>                     CSCI 330: Computer Networking and Communication [CS120]<br/>                     (CS310 can be replaced with D325; one CS elective can be replaced with either M223 or M327)</p>  |
| <p align="center"><b>Independent Study</b> (2.5 credits)</p> <p>CSCI 401: Junior I.S.^ [CS 120+CS2xx+W]<br/>                     CSCI 451: Senior I.S. [CS401]<br/>                     CSCI 452: Senior I.S. [CS451]</p>   |

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| <p align="center"><b>Computer Science Minor</b> (7.75 credits)</p> <p>CSCI 100 or 102; CSCI 112; CSCI 120; MATH 110; MATH 130; and<br/>                     three full-credit CSCI 2xx/3xx courses<br/>                     (CS310 can be replaced with D325; one CS elective can be replaced with either M223 or M327)</p> |
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- 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 AI for Creative Computing      |
| 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<br>Math 327 Numerical Analysis<br>Data 325 Applied Data Science |