

APPLIED COMPUTER SCIENCE MAJOR

Degree Requirements

All students are required to complete overall degree requirements in addition to their major. Please see Degree Completion Requirements (<https://catalog.hiram.edu/undergraduate/student-academic-responsibilities-performance/degree-completion-requirements/>) for full details for students entering in the 2024-2025 catalog year.

Those students who started at Hiram prior to the 2024-2025 academic year will follow the Degree Requirements outlined in your catalog of record.

Major Requirements

The applied computer science major requires nine courses plus an approved minor in another discipline.

Code	Title	Hours
Core Courses		
Select one of the following introductory courses:		4
CPSC 16600	COMPUTERS & ENTERTAIN-W/LAB:MM	
CPSC 17100	INTRO TO COMPUTER SCI-W/LAB:MM	
Three additional required core courses:		
CPSC 17200	INTRO TO PROGRAMMING-W/LAB:MM	4
CPSC 20100	DATA STRUCTUR/ALRITHM-W/LAB:MM	4
CPSC 24000	COMPUTER ETHICS:ES	3
Computer Science Electives¹		
One elective at the 20000-level		3-4
Three electives at the 30000-level		12
Minor		
At least a minor in another discipline, subject to approval by the computer science program		
Capstone (relating to your minor discipline and computer science)		
CPSC 48500	APPLIED COMP SCI CAPSTONE I	2
CPSC 48600	APPLIED COMP SCI CAPSTONE II	2
Total Hours		34-35

¹

At least one of the elective courses should include significant group work – either one of the group work courses listed under the computer science major or an alternative approved by the computer science program.

Example Applied Computer Science Tracks

The following examples are meant to be illustrative, but not comprehensive.

Code	Title	Hours
Computer Information Systems		
CPSC 32201	USER INTERFACE DESIGN	4
CPSC 35600	DATABASE DESIGN	4
CPSC 37500	SOFTWARE ENGINEERING	4
CPSC 38000	SEM: (WEB PROGRAMMING)	3-4
Management or Entrepreneurship Minor		

Information Technology

CPSC 20500	SYSTEMS PROGRAMMING	3
CPSC 34500	OPERATING SYSTEMS	4
CPSC 35200	COMPUTER SECURITY	4
CPSC 36300	COMPUTER NETWORKS	4

Management or Communication Minor

Digital Media

CPSC 16600	COMPUTERS & ENTERTAIN-W/LAB:MM	4
CPSC 21000	DESIGN & BUILD COMPUTER GAMES	3
CPSC 38000 Web Programming		
CPSC 32201	USER INTERFACE DESIGN	4
CPSC 35600	DATABASE DESIGN	4
CPSC 38600	ARTIFICIAL INTELLIGENCE	4
or CPSC 38700	COMPUTER GRAPHICS	

Art, Photography, Writing, or Communication Minor

Scientific Computing

CPSC 2XXXX	DATA SCIENCE	4
CPSC 35600	DATABASE DESIGN	4
CPSC 35800	INTRO DESIGN&ANALYSIS ALGORITHM	4
CPSC 36100	COMPUTER SIMULATION:SM	4
CPSC 38800	COMPILER DESIGN & CONSTRUCTION	4

Biology, Chemistry, Environmental Science, or Physics Minor

Pathway

You may also be interested in reviewing the computer science major (<https://catalog.hiram.edu/undergraduate/schools/science-technology/computer-science/>)

Course	Title	Hours	Term
First Year			
Fall 12 Week			
UCS 10101	FIRST-YEAR ENDURING QUESTIONS	4	_____
CS INTRO or Second Major, Minor Course ¹		4	_____
Hiram Core Requirement		4	_____
Hours		12	
Fall 3 Week			
CPSC 24000	COMPUTER ETHICS:ES	3	_____
Hours		3	
Spring 12 Week			
UCS 20201	ADDRESSING URGENT QUESTIONS	4	_____
CS INTRO or Second Major, Minor Course ¹		4	_____
Hiram Core Requirement		4	_____
Hours		12	
Spring 3 Week			
Hiram Core Requirement		3-4	_____
Hours		3-4	
Second Year			
Fall 12 Week			
Hiram Core Requirement		4	_____
Elective, Second Major, Minor Course		4	_____

Hiram Core Requirement		4	_____
Hours		12	
Fall 3 Week			
Elective or Hiram Core Requirement ²		3-4	_____
Hours		3-4	
Spring 12 Week			
CPSC 17200	INTRO TO PROGRAMMING-W/ LAB:MM ¹	4	_____
Elective, Second Major, Minor Course		4	_____
Hiram Core Requirement		4	_____
Hours		12	
Spring 3 Week			
CPSC 2XXXX	CS Elective	3-4	_____
Hours		3-4	
Third Year			
Fall 12 Week			
CPSC 20100	DATA STRUCTUR/ALRITHM-W/ LAB:MM ¹	4	_____
UCS 30301	URGENT CHALLENGE SEMINAR:TT	4	_____
Elective, Second Major, Minor Course		4	_____
Hours		12	
Fall 3 Week			
Hiram Core Requirement		3-4	_____
Hours		3-4	
Spring 12 Week			
CPSC 3XXXX	Computer Science Elective	4	_____
CPSC 3XXXX	Computer Science Elective	4	_____
Elective, Second Major, Minor Course		4	_____
Hours		12	
Spring 3 Week			
Hiram Core Requirement		3-4	_____
Hours		3-4	
Fourth Year			
Fall 12 Week			
CPSC 3XXXX	Computer Science Elective	4	_____
CPSC 48500	APPLIED COMP SCI CAPSTONE I	2	_____
Elective, Second Major, Minor Course(s)		6-8	_____
Hours		12-14	
Fall 3 Week			
Elective, Second Major, Minor Course		3-4	_____
Hours		3-4	
Spring 12 Week			
CPSC 48600	APPLIED COMP SCI CAPSTONE II ¹	2	_____
Elective, Second Major, Minor Course(s)		10	_____
Hours		12	

Spring 3 Week			
INTD 38800	BIOINFORMATICS (or Hiram Core Requirement, Elective, 2nd Major, or Minor Course) ²	4	_____
Hours		4	
Total Hours		121-129	

1

"Critical" to timely degree progression.

2

Students may choose INTD 38800 BIOINFORMATICS to fulfill a computer science elective or Integrated Research Component corequisite.

A non-computing minor (or major) is required as part of this degree. Choose your CPSC electives in conjunction with your advisor to complement your minor. At least one of the CPSC courses should have a significant group project.