

Computer Science Associate of Science

EFFECTIVE BEGINNING ACADEMIC YEAR 2024-25

LAST REVISED: April 9, 2025

There are different computing disciplines: Computer Science emphasizes mathematical concepts related to designing new technology. Information Systems focuses on application of the information aspects of information technology, whereas Information Technology emphasizes the application of the technology itself more than the information it conveys.

Computer Science involves design and innovation developed from computing principles. It focuses on the theoretical foundations of computing, algorithms, and programming techniques, as applied to operating systems, artificial intelligence, informatics and other emerging areas. Computer scientists should be prepared to work in a broad range of positions involving tasks from theoretical work to software development. Computer science programs typically require significant mathematical background.

GENERAL E	DUCATION REQUIREMENTS/OHIO TRANSFER 36	COURSE NUMBER	CREDIT HOURS
ENGLISH CO	ENGLISH COMPOSITION AND ORAL COMMUNICATION		
Course 1:	Any Ohio Transfer 36 approved First Writing (TME001) course	ENG 1101	3
MATHEMATI	CS, STATISTICS, AND LOGIC		5
Course 1:	Calculus I (TMM005) ¹	MAT 2270	5
ARTS AND H	UMANITIES		6
+ Course 1:	Any Ohio Transfer 36 approved Arts and Humanities course	HIS 1111*	3
+ Course 2:	Any Ohio Transfer 36 approved Arts and Humanities course	ART 1110*	3
SOCIAL AND	BEHAVIORAL SCIENCES		6
+ Course 1:	Any Ohio Transfer 36 approved Social and Behavioral Sciences course	SOC 1101*	3
+ Course 2:	Any Ohio Transfer 36 approved Social and Behavioral Sciences course	PSY 1100	3
NATURAL SCIENCES		10	
Course 1:	General Chemistry I (OSC008) or Calculus-based Physics I (OSC016) ²	PHY 2201/ PHY 2207	5
Course 2:	Any Ohio Transfer 36 approved Natural Sciences course ²	PHY 2202/ PHY 2208	5
ADDITIONAL CREDITS			11
Course 1:	Calculus II (TMM006)	MAT 2280	5
Course 2:	Public Speaking (OCM013), Oral Communication (TMOC), or Second Writing (TME002) course	COM 2211	3
Course 3:	Ohio Transfer 36 approved elective [Recommended: Introduction to Ethics (OAH046) or Introduction to Logic (OAH061)]	SOC 1145	3
GENERAL EI	DUCATION/OHIO TRANSFER 36 TOTAL:		41

Advising Notes:

Where it indicates "Any Ohio Transfer 36 approved," students should work closely with their advisors.

- (+) indicates that the courses chosen should be from two different areas within that category.
- (*) indicates that other course options may be available. Please consult with your academic advisor.
- ¹A prerequisite may be needed for a student to reach Calculus I (TMM005).
- ² The Ohio State University and Cleveland State University require Physics (OSC016). The University of Cincinnati requires Chemistry I (OSC008). Some institutions require a full-year sequence or both along with biology. Check with your academic advisor and your receiving institution to determine the appropriate science courses.



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PRE-MAJO	R/BEGINNING MAJOR	COURSE NUMBER	CREDIT HOURS
Course 1:	Discrete Mathematics (TMM023)	MAT 2570	4
Course 2:	Computer Science I (OCS001)	CIS 2212	3
Course 3:	Computer Science II (OCS002)	CIS 2217 (To be submitted) ¹	4
Course 4:	Data Structures (OCS003)	CSI 2207 (To be submitted) ¹	3

PRE-MAJOR/BEGINNING MAJOR TOTAL:

Advising Notes:

¹"To be submitted" indicates that the course does not currently carry the statewide course equivalency guarantee. However, the institution is working towards this goal. Students should consult this institution's contact indicated below for guidance on enrollment in this course.

OTHER RECOMMENDATIONS		COURSE NUMBER	CREDIT HOURS
	Electives [Recommended: Introduction to Computer Science if offered, Elementary Linear Algebra (OMT019), and/or Computer Organization/Architecture] ¹	CIS 1111	3
Courses:		MAT 2330	5
OTHER RECOMMENDATIONS TOTAL:			8

Advising Notes:

¹Additional recommended pre-major/major coursework is institution specific. Requirements vary by institution. Consult with your academic advisor and your receiving institution to determine an appropriate program of study.

ASSOCIATE DEGREE	Total Credit Hours
ASSOCIATE DEGREE TOTAL:	63

SPECIAL NOTES

Some bachelor-degree granting programs may be competitive and admission into the program is not guaranteed. Students should check with individual institutions for their program admission requirements.

Some bachelor-degree granting institutions require additional general education courses outside of the Ohio Transfer 36 and students may be required to take these courses in their junior or senior year. Students will still be able to follow this pathway and complete their bachelor's degree in approximately 60 additional credit hours.

For more information, please contact:

Academic Advising

academicadvising@sinclair.edu

(937) 512-370



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SAMPLE DEGREE MAP

FIRST YEAR

SEMESTER 1		
COURSE NAME & NUMBER	CREDIT HOURS	
CIS 1111 Intro Prob Solv Comp Prog	3	
ENG 1101 English Composition I	3	
MAT 2270 Calc & Analytic Geometry I	5	
ART 1110 Art Appreciation	3	
PSY 1100 General Psychology	3	
Total SEMESTER 1 Credit Hours	17	

SEMESTER 2		
COURSE NAME & NUMBER	CREDIT HOURS	
CIS 2212 Computer Science I	3	
MAT 2280 Calc and Analytical Geometry II	5	
PHY 2201/PHY 2207 General Physics I & Lab	5	
COM 2211 Effective Public Speaking	3	
Total SEMESTER 2 Credit Hours	16	

SECOND YEAR

SEMESTER 3		
COURSE NAME & NUMBER	CREDIT HOURS	
CIS 2217 Computer Science II	4	
MAT 2330 Diff Equat & Linear Algebra	5	
PHY 2202/PHY 2208 General Physics II & Lab	5	
SOC 1101 Intro to Sociology	3	
Total SEMESTER 3 Credit Hours	17	

SEMESTER 4	
COURSE NAME & NUMBER	CREDIT HOURS
CIS 2207 Data Structures	3
MAT 2570 Discrete Mathematics	4
HIS 1111 Western Civilization I	3
SOC 1145 Introduction to Cultural Anthropology	3
Total SEMESTER 4 Credit Hours	13