

# Associate in Arts Computer Science Concentration

Students who complete this concentration will satisfy the requirements of MassTransfer. Students are encouraged to meet with the Cape Cod Community College Transfer Advisor. Students should consult with an advisor about the general education course requirements. For additional information pertaining to degree requirements, please refer to [Degree Requirements](#).

The table below specifies a full-time course load, per semester, for students planning to complete their degree in two years.

**A candidate for the Computer Science Concentration must complete the courses shown below.**

Course #	Course Title	Credits	Prerequisites
<b>First Semester</b>			
ENL101	English Composition I	3	Appropriate scores in Reading Comprehension & in Sentence Skills on CPT or grade of C or better in ENL020 and ENL050 or ESL201
MAT240	Calculus I	4	MAT190 or MAT195
CSC110	Computer Programming I: Java	3	(MAT030 or MAT035) or satisfactory basic skills assessment score
	Physics*	4	
	Behavioral & Social Sciences	3	
<b>Second Semester</b>			
ENL102	English Composition II	3	A grade of C or higher in ENL101
MAT250	Calculus II	4	MAT240 or MAT185
CSC130	Computer Programming II: Java	4	CSC110
	Physics*	4	
<b>Third Semester</b>			
COM103	Human Communication	3	ENL010 or ESL102 or satisfactory basic skills assessment score
CSC210	Systems Software and Assembly Language Programming	4	CSC130
CSC120	Computer Programming I: C++	4	(MAT030 or MAT035) or satisfactory basic skills assessment score & working knowledge of any programming language
	Humanities & Fine Arts	3	
	Behavioral & Social Sciences	3	
<b>Fourth Semester</b>			
CSC230	Data Structures	4	CSC120 & CSC130
	Mathematics/Quantitative Reasoning**	3 or 4	
	Humanities & Fine Arts	3	
	Behavioral & Social Sciences	3	
	Humanities & Fine Arts	3	
<b>Total Credits</b>		<b>65/66</b>	

## Overview

Using hands-on projects and teamwork, Computer Science students learn to design, implement, and test programs in Java, C++, and assembly language. Students analyze and use various software development models and basic software engineering principles. Object-oriented programming methodology, systems software, and data structures are studied in depth. Students satisfy the general education requirements and MassTransfer with concentrated coursework in Calculus and Physics.

## Career Outlook

Most Computer Science students continue their education at a four-year school. Computer scientists design computers, software, and information technologies. Computer engineers also work with hardware and software, often in the process of building prototypes. By far the most numerous of computer professionals and systems analysts solve computer problems and customize technology to satisfy the needs of an organization. Computer scientists, computer engineers, and systems analysts are among the fastest growing occupations.

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\* PHY151 Physics I and PHY152 Physics II (or)  
PHY211 University Physics I and PHY212 University Physics II

\*\* MAT150 Elementary Statistics

The Associate in Arts degree does not indicate a specialized degree in a concentration.