

## Computer Science

### A.S. Degree Program – Catalog Year 2018-2019

The program outlined here will prepare students for transfer to a four-year college to obtain a Bachelor of Science degree in computer science. The curriculum follows the model provided by the Association of Computing Machinery and the Institute of Electrical and Electronic Engineers Computer Society in order to assure maximum transferability. This curriculum has been designed to address these needs in preparing the student for a future in computer science.

### Faculty Contacts/Program Chairs

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### Transfer Information

Students pursuing the Computer Science degree can transfer into a Computer Science major. Many colleges offer opportunities for transfer both in and out of state. Students are encouraged to work closely with OCC faculty and Advising Transfer Services. Students planning to transfer to a four-year institution in NJ can explore the "Transfer Programs" feature on NJ Transfer [www.njtransfer.org](http://www.njtransfer.org).

### Career Information

The Associate of Arts and the Associate of Science Degrees are designed to provide students with the coursework needed to transfer to a four-year institution and pursue a bachelor's degree. The curriculum provides students the knowledge and skills needed to pursue various career pathways, while providing a credential beyond the high school degree. Students are strongly encouraged to consult with OCC faculty and Career Services as they begin to explore career options. Students can also utilize Career Coach, a resource provided by OCC, to explore degree programs and corresponding careers <https://ocean.emsicc.com/>

### Fundamental Coursework

CSIT 165, 166, 176, 265  
 MATH 265, 266, 267, 270  
 PHYS 281-282

**Students are encouraged to keep track of degree requirements by using the "My Progress" screen on Student Planning. Student Planning can be accessed via logging into Ocean Connect.**

## Curriculum

### First Semester

ENGL 151	English I	3 cr.
MATH 265	Calculus I	4 cr.
CSIT 165	Programming I	4 cr.
	Humanities Gen Ed Requirement	3 cr.
STSC 155	College Success Seminar	<u>3 cr.</u>
		17 cr.

### Second Semester

ENGL 152	English II	3 cr.
MATH 266	Calculus II	4 cr.
CSIT 166	Programming II	4 cr.
CSIT 176	Computer Organization & Architecture	3 cr.
	Humanities or Social Science	
	Gen Ed Requirement	<u>3 cr.</u>
		17 cr.

### Third Semester

MATH 267	Calculus III	4 cr.
CSIT 212	Systems Analysis	3 cr.
CSIT 265	Data Structures and Analysis	4 cr.
PHYS 281	General Physics I	<u>4 cr.</u>
		15 cr.

### Fourth Semester

MATH 270	Discrete Mathematics	3 cr.
CSIT 213	Database Management	3 cr.
PHYS 282	General Physics II	4 cr.
	Social Science Gen Ed Requirement	3 cr.
	Elective (to meet required 64 cr.)*	<u>2 cr.</u>
		15 cr.

TOTAL CREDITS 64

Courses satisfying General Education Requirements must be selected from the list of Approved General Education Courses