

Computer Science

A.S. Degree Program – Catalog Year 2017-2018

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 Electronics Engineers Computer Society in order to assure maximum transferability. Upon graduation, students can expect to transfer to a four-year college with junior status. Effective problem solving is central to good programming; this curriculum provides the necessary foundation. The software development process (composing and coordinating components of a program) requires that students construct algorithms for problem solving with appropriate documentation. 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 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.

Career Information

The Associate of Arts and the Associate of Science Degrees are designed to transfer to a four-year institution, where students will pursue a Bachelor's Degree. Some students pursue the Associate Degree for personal enrichment, and/or for employment purposes, helping to improve qualifications for jobs requiring a credential beyond the high school degree. Students are strongly encouraged to consult with Faculty and Career Services as they begin to explore career options. Students can also utilize Career Coach, a resource provided by OCC to help students explore degree programs and corresponding careers ocean.emsicareercoach.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.
CSIT 165	Programming I	4 cr.
MATH 265	Calculus I	4 cr.
_____	Humanities Gen Ed Requirement	3 cr.
_____	Social Science Gen Ed Requirement	<u>3 cr.</u>
		17 cr.

Second Semester

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

Third Semester

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

Fourth Semester

CSIT 213	Database Management	3 cr.
MATH 270	Discrete Mathematics	3 cr.
PHYS 282	General Physics II	4 cr.
_____	Electives (to meet required 64 cr.)*	<u>5 cr.</u>
_____		15 cr.

TOTAL CREDITS 64

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