

Computer Science Program A.S. Degree

This program is designed for students who would like to transfer to a four-year program in Computer Science or related areas, such as Management Information Systems or Software Engineering. Hands-on computer courses are combined with general and mathematics courses to provide the student with the essential coursework needed to succeed beyond the Associate degree.

Graduates of this program will be able to:

- Analyze problems
- Create effective algorithms
- Code, debug, test and document programs using basic control structures
- Create programs using data structures such as arrays, lists, and stacks
- Design and use classes and objects
- Explain functions of operating systems and computer architecture
- Understand how to store and access data using a database
- Plan and design a computer information system

Requirements

General Education - 30 credits of general education as described on page 51 of the Catalog. The following general education courses are recommended for students choosing this program.

(Credit hours listed with each course)

ENGL 121 English Composition 3

The Writing Process

ENGL 122 English Composition 3

Writing and Research

MATH 171 Calculus I 4

PHYS 121 General Physics I 4

PHYS 122 General Physics II 4

Career Studies - 35 credits as follows:

COMP 126 Computer Logic and Design 3

COMP 135 Computer Architect - 3

Assembly Language

COMP 171 Programming I 3

COMP 225 Operating Systems Technology 3

COMP 226 Systems Analysis and Design 3

COMP 228 Data Structures 3

COMP 269 Database Concepts 3

COMP 271 Programming II 3

COMP 296 Advanced Software Project 3

MATH 172 Calculus II 4

MATH 273 Calculus III 4

Suggested Sequence - Computer Science Program A.S.

Degree

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and *prerequisites and presumes a Fall Term start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Course Code Credits Course Code Credits

SEMESTER 1 SEMESTER 2

COMP 126 3 COMP 135 3

COMP 171 3 COMP 271 3

MATH 171* 4 MATH 172 4

ENGL 121 3 ENGL 122 3

Social Sciences 3 Social Sciences or Humanities 3

16

SEMESTER 3 SEMESTER 4

COMP 225 3 COMP 228 3

COMP 226 3 COMP 296 3

COMP 269 3 PHYS 122 4

MATH 273 4 General Education(1) 3

PHYS 121 4 Humanities 3

17 16

Total Credits for Degree 65

*MATH 152 and/or MATH 153 may be required if prerequisites for MATH 171 are not satisfied.

(1) One course is recommended from the Cultural & Global Awareness knowledge area.

BACHELOR'S THROUGH BROOKDALE

This is a preferred Associate degree for students planning to pursue a Bachelor's degree in Computer Science or Information Technology at Brookdale's New Jersey Coastal Communiversities. For program details and transfer information, students should talk to their Student Development Specialist or call the Communiversities at 732-280-2090.

NOTE: This program assumes that the student is prepared to take Calculus I as a first semester

college level math course. Students who need to satisfy basic math requirements or who are counseled to take courses prior to Calculus will need to take additional credits. Also note that Calculus I is a prerequisite for Calculus II.

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