

Rowan College of South Jersey
COMPUTER SCIENCE
Associate in Science (A.S.) – Transfer
 Program Requirements

The goal of this program is to provide the first two years of a Computer Science baccalaureate degree program for the students who wish to transfer to a four-year program in Computer Science. The core curriculum will provide foundations in programming and problem solving, data representation and algorithms, object-oriented programming, computer organization and assembly language programming fulfilling the core competences of critical thinking and information technology. Although this program is primarily designed for students to transfer to a four-year program, after successful completion of this program, students will also find job opportunities in computer science and information technology areas. Students who have completed the program will be able to:

- Learn fundamental principles, theories, and analytical skills to solve computing problems throughout the program
- Analyze, design, choose the interface, coding, test and debug to effectively develop error-free computer programs
- Learn computer architecture, software design, and programming that are most widely used in Engineering, Science and Technology related fields
- Identify, formulate and solve problems and learn to adapt to evolving computer languages, systems and industry standards

Required Core and Elective Courses

<u>Communications</u>		<u>Credits</u>
ENG 101	English Composition I	3
ENG 102	English Composition II	3
 <u>Humanities / Social Science</u>		
_____	Social Science Elective	3
_____	Humanities Electives	3
_____	Humanities Electives / Social Science Elective	3
 <u>Free Elective</u>		
_____	HPE or Free Elective	2-4
 <u>Mathematics</u>		
MAT 108	Calculus I	4
MAT 122	Calculus II	4
MAT _____	Mathematics elective - Linear Algebra (MAT 202) Or Calculus III (MAT 221)	4
MAT 201	Discrete Mathematics	3
 <u>Science</u>		
PHY 201	Physics with Calculus I	4
PHY 202	Physics with Calculus II	4
 <u>Computer Science</u>		
CSC 203	Assembly Language and Computer Organization	4
CSC 205	Programming in C++	4
CSC 210	Object Oriented Programming in Java	4
CSC 216	Objects and Data Abstraction using Java	4
CSC 220	Data Structures and Algorithms	4
<u>TOTAL MINIMUM CREDITS:</u>		60

Electives:

Humanities Elective / Social Science Elective: **9 credits** - must be chosen from the approved list of General Education courses. Refer the College Catalog and/or the Counseling Office.

Mathematics: Linear Algebra (MAT 202) or Calculus III (MAT 221)

***Students planning to transfer to Rowan University should take Linear Algebra MAT 202 as their Mathematics elective**

**Rowan College of South Jersey
COMPUTER SCIENCE
Associate in Science (A.S.) – Transfer
Program Requirements**

Four Semester Sequence of Courses

FIRST YEAR – Fall Semester

			<u>Credits</u>
_____	CSC 205	Programming in C++	4
_____	ENG 101	English Composition I	3
_____	MAT 108	Calculus I	4
_____	_____	Humanities Elective	3
_____	_____	Social Science Elective	3

17

Spring Semester

_____	CSC 210	Object Oriented Programming in Java	4
_____	ENG 102	English Composition II	3
_____	MAT 122	Calculus II	4
_____	PHY 201	Physics with Calculus I	4

15

SECOND YEAR - Fall Semester

_____	CSC 203	Assembly Language and Computer Organization	4
_____	CSC 216	Objects and Data Abstraction using Java	4
_____	MAT _____	Mathematics elective - Linear Algebra (MAT 202) * Or Calculus III (MAT 221)	4
_____	_____	Humanities Elective / Social Science Elective	3

15

Spring Semester

_____	CSC 220	Data Structures and Algorithms	4
_____	MAT 201	Discrete Mathematics	3
_____	PHY 202	Physics with Calculus II	4
_____	_____	HPE or Free Elective	2-4

13

TOTAL MINIMUM CREDITS: 60

Electives:

Humanities Elective / Social Science Elective: **9 credits** - must be chosen from the approved list of General Education courses. Refer the College Catalog and/or the Counseling Office.

Mathematics: Linear Algebra (MAT 202) or Calculus III (MAT 221)

***Students planning to transfer to Rowan University should take Linear Algebra MAT 202 as their Mathematics elective.**