



[AS-CSC; CIP Code 11.0701]

**Associate in Science (A.S.) –
Transfer**

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 competencies 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.

Program Contact

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Computer Science
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Are you ready to get
started at RCSJ?
Visit [RCSJ.edu/Enroll](https://www.rcsj.edu/enroll)
and complete the
interest form.

Computer Science, A.S.

This is a 3+1 option program with Rowan University.

FIRST YEAR – Fall Semester

<input type="checkbox"/> CSC 205 Programming in C++	4
<input type="checkbox"/> ENG 101 English Composition I	3
<input type="checkbox"/> MAT 108 Calculus I	4
<input type="checkbox"/> Humanities General Education Elective	3
<input type="checkbox"/> Social Science General Education Elective	3
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	17

Spring Semester

<input type="checkbox"/> CSC 210 Object Oriented Programming in Java	4
<input type="checkbox"/> ENG 102 English Composition II	3
<input type="checkbox"/> MAT 122 Calculus II	4
<input type="checkbox"/> PHY 201 Physics with Calculus I	4
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	15

SECOND YEAR - Fall Semester

<input type="checkbox"/> CSC 203 Assembly Language and Computer Organization	4
<input type="checkbox"/> CSC 216 Objects and Data Abstraction using Java	4
<input type="checkbox"/> MAT ____ Mathematics elective - Linear Algebra (MAT 202) * or Calculus III (MAT 221)	4
<input type="checkbox"/> Humanities Elective / Social Science Elective	3
	<hr/>
	15

Spring Semester

<input type="checkbox"/> CSC 220 Data Structures and Algorithms	4
<input type="checkbox"/> MAT 201 Discrete Mathematics	3
<input type="checkbox"/> PHY 202 Physics with Calculus II	4
<input type="checkbox"/> HPE or Free Elective	2-4
	<hr/>
	13-15

TOTAL MINIMUM CREDITS:60

Electives:

Humanities Elective / Social Science Elective: 9 credits - must be chosen from the approved list of General Education courses. Refer to 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.

Program Learning Outcomes

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



After completing the Computer Science A. S., students may choose to continue with the bachelor's degree pathway at RCSJ.

The 3+1 pathway enables students to complete three years of coursework at RCSJ and one year at Rowan University to earn a bachelor's degree. The 3+1 pathway follows Rowan's course curriculum, with junior year classes taught by RCSJ advanced-degree faculty.

Data Analytics 3+1

THIRD YEAR – Fall Semester

<input type="checkbox"/> CSC 106 Introduction to Data Science	3
<input type="checkbox"/> CIS 300 Applied Database Technologies	3
<input type="checkbox"/> CIS 110 Fundamentals of Programming	4
<input type="checkbox"/> CIS 200 Principles of Information Security	3
<input type="checkbox"/> MAT 103 Statistics	3

Spring Semester

<input type="checkbox"/> CIS 207 Management Information Systems	3
<input type="checkbox"/> CSC 225 Programming in R	2
<input type="checkbox"/> MAT 203 Statistics II	3
<input type="checkbox"/> DATA 301 Research Methods & Ethical Issues in Data Analysis	3
<input type="checkbox"/> SPE 101 Oral Communication	3



FOURTH YEAR – After completing the third year at RCSJ, students will seamlessly transfer to Rowan University for their senior year. 3+1 team members at both institutions work closely with students to guide them through the process.



Industry & Employment Opportunities

Bachelor

Business Analyst, Disaster Recovery Mitigation Analyst, Data Analyst – Business Intelligence

Master

Financial Data Analyst, Data Scientist

Questions?

About 3+1: Alescia Kennon, akennon1@rcsj.edu

About the program: Erin Bethusiem, Instructor I, ebethus1@rcsj.edu

RCSJ.edu/3plus1