



### ENG.AS; CIP Code 14.0102

## Associate in Science (A.S.) — Transfer

This program is designed to meet the demands of an increasing number of people in the community who are interested in preparing for a career in the engineering field.

#### When You Graduate

AS programs are primarily designed for students who plan to transfer as juniors at four-year colleges and universities. RCSJ graduates have obtained bachelor's degrees and beyond from every college in New Jersey and scores of colleges and universities throughout America. RCSJ has transfer agreements with a number of four-year colleges and universities.

This program prepares students for a career in the engineering field. Engineering uses the physical science and mathematics to design and develop products and systems. It uses advanced techniques to find solutions to technical problems and other complex issues.

Are you ready to get started at RCSJ? Visit RCSJ.edu/Enroll and complete the interest form.

# Engineering, A.S.

□ EG 101 Introduction to Engineering I         2           □ PI 141 General Physics I         4           □ EN 101 English Composition I         3           □ MA 130 Calculus I         4           □ General Education Humanities Elective         3           ■ Fing Semester         16           □ EG 103 Introduction to Engineering I Lab         2           □ PI 142 General Physics II         4           □ EN 102 English Composition II         3           □ MA 140 Calculus II         4           □ General Education Social Science Elective or General Education Humanities Elective         3           □ Program Elective*         3-4           ■ Program Elective         3-4           19-20         SECOND YEAR - Fall Semester           □ EG 211 Introduction to Engineering II         1           □ MA 210 Calculus III         4           □ CH 101 General Chemistry I         4           □ SP 203 Effective Speech         3
□ EN 101 English Composition I       3         □ MA 130 Calculus I       4         □ General Education Humanities Elective       3         16       16         Spring Semester         □ EG 103 Introduction to Engineering I Lab       2         □ PI 142 General Physics II       4         □ EN 102 English Composition II       3         □ MA 140 Calculus II       4         □ General Education Social Science Elective or General Education Humanities Elective       3         □ Program Elective*       3-4         □ Program Elective*       3-4         □ EG 211 Introduction to Engineering II       1         □ MA 210 Calculus III       4         □ CH 101 General Chemistry I       4         □ SP 203 Effective Speech       3
□ MA 130 Calculus I       4         □ General Education Humanities Elective       3         16         Spring Semester         □ EG 103 Introduction to Engineering I Lab       2         □ PI 142 General Physics II       4         □ EN 102 English Composition II       3         □ MA 140 Calculus II       4         □ General Education Social Science Elective or General Education Humanities Elective       3         □ Program Elective*       3-4         □ Program Elective*       3-4         □ EG 211 Introduction to Engineering II       1         □ MA 210 Calculus III       4         □ CH 101 General Chemistry I       4         □ SP 203 Effective Speech       3
General Education Humanities Elective       3         Spring Semester       16         EG 103 Introduction to Engineering I Lab       2         PI 142 General Physics II       4         EN 102 English Composition II       3         MA 140 Calculus II       4         General Education Social Science Elective or General Education Humanities Elective       3         Program Elective*       3-4         19-20         SECOND YEAR - Fall Semester       1         EG 211 Introduction to Engineering II       1         MA 210 Calculus III       4         CH 101 General Chemistry I       4         SP 203 Effective Speech       3
General Education Humanities Elective       3         Spring Semester       16         EG 103 Introduction to Engineering I Lab       2         PI 142 General Physics II       4         EN 102 English Composition II       3         MA 140 Calculus II       4         General Education Social Science Elective or General Education Humanities Elective       3         Program Elective*       3-4         19-20         SECOND YEAR - Fall Semester       1         EG 211 Introduction to Engineering II       1         MA 210 Calculus III       4         CH 101 General Chemistry I       4         SP 203 Effective Speech       3
Spring Semester
□ EG 103 Introduction to Engineering I Lab       2         □ PI 142 General Physics II       4         □ EN 102 English Composition II       3         □ MA 140 Calculus II       4         □ General Education Social Science Elective or General Education Humanities Elective       3         □ Program Elective*       3-4         19-20         SECOND YEAR - Fall Semester         □ EG 211 Introduction to Engineering II       1         □ MA 210 Calculus III       4         □ CH 101 General Chemistry I       4         □ SP 203 Effective Speech       3
□ PI 142 General Physics II       4         □ EN 102 English Composition II       3         □ MA 140 Calculus II       4         □ General Education Social Science Elective or General Education Humanities Elective       3         □ Program Elective*       3-4         19-20         SECOND YEAR - Fall Semester         □ EG 211 Introduction to Engineering II       1         □ MA 210 Calculus III       4         □ CH 101 General Chemistry I       4         □ SP 203 Effective Speech       3
□ EN 102 English Composition II       3         □ MA 140 Calculus II       4         □ General Education Social Science Elective or General Education Humanities Elective       3         □ Program Elective*       3-4         19-20         SECOND YEAR - Fall Semester         □ EG 211 Introduction to Engineering II       1         □ MA 210 Calculus III       4         □ CH 101 General Chemistry I       4         □ SP 203 Effective Speech       3
□ MA 140 Calculus II 4   □ General Education Social Science Elective or General Education Humanities Elective 3   □ Program Elective* 3-4   19-20   SECOND YEAR - Fall Semester □ EG 211 Introduction to Engineering II 1   □ MA 210 Calculus III 4   □ CH 101 General Chemistry I 4   □ SP 203 Effective Speech 3
General Education Social Science Elective or General Education Humanities Elective Program Elective* 3-4 19-20  SECOND YEAR - Fall Semester EG 211 Introduction to Engineering II MA 210 Calculus III CH 101 General Chemistry I SP 203 Effective Speech 3
General Education Humanities Elective  Program Elective*  3-4 19-20  SECOND YEAR - Fall Semester  EG 211 Introduction to Engineering II  MA 210 Calculus III  CH 101 General Chemistry I  SP 203 Effective Speech  3
Program Elective*  3-4 19-20  SECOND YEAR - Fall Semester  EG 211 Introduction to Engineering II  MA 210 Calculus III  CH 101 General Chemistry I  SP 203 Effective Speech  3
SECOND YEAR - Fall Semester  □ EG 211 Introduction to Engineering II 1 □ MA 210 Calculus III 4 □ CH 101 General Chemistry I 4 □ SP 203 Effective Speech 3
SECOND YEAR - Fall Semester  □ EG 211 Introduction to Engineering II 1 □ MA 210 Calculus III 4 □ CH 101 General Chemistry I 4 □ SP 203 Effective Speech 3
□ EG 211 Introduction to Engineering II 1 □ MA 210 Calculus III 4 □ CH 101 General Chemistry I 4 □ SP 203 Effective Speech 3
□ MA 210 Calculus III       4         □ CH 101 General Chemistry I       4         □ SP 203 Effective Speech       3
□ MA 210 Calculus III       4         □ CH 101 General Chemistry I       4         □ SP 203 Effective Speech       3
□ SP 203 Effective Speech 3
□ SP 203 Effective Speech 3
•
☐ Program Elective* 3-4
15-16
Spring Semester
☐ CS 212 C++ Programming 4
☐ EG 212 Introduction to Engineering II Lab
☐ MA 220 Differential Equations 4
☐ MA 207 Linear Algebra for Engineers 1
☐ EC 201 Principles of Macroeconomics or
EC 202 Principles of Microeconomics 3
□ Program Elective* 3-4
16-17

**TOTAL MINIMUM CREDITS: 66** 

#### \*Program Electives

#### **Mechanical Engineering Track**

- EG 201 Statics 3cr
- EG 202 Dynamics 3cr
- EG 213 Principles of Electrical Circuit Analysis 4cr or EG 203 Strength of Materials 3 cr

#### **Chemical Engineering Track**

- · CH 102 Chemistry II 4cr
- CH 201 Organic Chemistry I 4cr
- · CH 202 Organic Chemistry II 4cr

#### **Electrical and Computer Engineering Track**

- · CS 216 Intermediate Java
- · EG 121 Digital Electronics 3cr
- · EG 122 Electronics for Engineers 3cr
- · EG 213 Principles of Electrical Circuit Analysis 4cr

## **Civil Engineering Track:**

- · EG 203 Strength of Materials
- · EG 102 Graphics 3cr
- · EG 201 Statics 3cr
- EG 202 Dynamics 3cr