



### Certificate of Achievement

The Certificates of Achievement give students the knowledge and skills needed for employment in their respective fields. They will provide students with a concentration of courses that can be taken in conjunction with those required for the A.S. Engineering Science degree program. If the student decides to continue with the remaining course requirements leading to an associate degree in Engineering Science, the certificate will allow them to take the additional courses needed for transfer and can be used as Program electives.

#### Note

The Certificate of Achievement (COA) must be 12-29 credits. To be eligible for financial aid, it must be a minimum of 15 credits.

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

## Engineering Science, COAs

### Biomedical Engineering

[ENGRBECO, CIP Code 15.1001]

|  |          |
|--|----------|
| <input type="checkbox"/> BIOL 101 General Biology I        | 4        |
| <input type="checkbox"/> CHEM 102 General Chemistry II     | 4        |
| <input type="checkbox"/> MATH 212 Linear Algebra           | 3        |
| <input type="checkbox"/> PHYS 202 Physics with Calculus II | 4        |
| <input type="checkbox"/> SPEH 101 Effective Speech         | 3        |
|  | <hr/> 18 |

**TOTAL MINIMUM CREDITS: 18**

### Civil Engineering

|   |          |
|---|----------|
| <input type="checkbox"/> SPEH 101 Effective Speech                            | 3        |
| <input type="checkbox"/> MATH 212 Linear Algebra                              | 3        |
| <input type="checkbox"/> ENGR 207 Engineering Materials                       | 3        |
| <input type="checkbox"/> ENGR 211 Engineering Statics                         | 3        |
| <input type="checkbox"/> ENGR 212 Mechanics of Materials                      | 3        |
| <input type="checkbox"/> ENGR 213 Engineering Dynamics                        | 3        |
| <input type="checkbox"/> GEOL 115 Introduction Geographic Information Systems | 3        |
| <input type="checkbox"/> CETE 108 Introduction to Surveying                   | 3        |
| <input type="checkbox"/> ETEC 103 CADD I (AutoCAD)                            | 3        |
|   | <hr/> 27 |

**TOTAL MINIMUM CREDITS: 27**

### Chemical Engineering

[ENGRCECOA; CIP Code 14.0101]

|   |          |
|---|----------|
| <input type="checkbox"/> SPEH 101 Effective Speech                | 3        |
| <input type="checkbox"/> MATH 212 Linear Algebra                  | 3        |
| <input type="checkbox"/> CHEM 201 Organic Chemistry I             | 4        |
| <input type="checkbox"/> CHEM 202 Organic Chemistry II            | 4        |
| <input type="checkbox"/> BIOL 101 General Biology I               | 4        |
| <input type="checkbox"/> ENGR 102 First Year Engineering Clinic I | 2        |
|   | <hr/> 20 |

**TOTAL MINIMUM CREDITS: 20**

### Electrical Engineering

[ENGRELECOA; CIP Code 14.0101]

|   |          |
|---|----------|
| <input type="checkbox"/> SPEH 101 Effective Speech                          | 3        |
| <input type="checkbox"/> MATH 212 Linear Algebra                            | 3        |
| <input type="checkbox"/> ENGR 108 Digital Electronics for Engineers         | 3        |
| <input type="checkbox"/> ENGR 218 Principles of Electrical Circuit Analysis | 4        |
| <input type="checkbox"/> CSCI 220 Data Structures and Algorithms            | 4        |
|   | <hr/> 17 |

**TOTAL MINIMUM CREDITS: 17**

### Mechanical Engineering

[COACAMC; CIP Code 14.0101]

|  |          |
|--|----------|
| <input type="checkbox"/> SPEH 101 Effective Speech       | 3        |
| <input type="checkbox"/> MATH 212 Linear Algebra         | 3        |
| <input type="checkbox"/> ENGR 207 Engineering Materials  | 3        |
| <input type="checkbox"/> ENGR 211 Engineering Statics    | 3        |
| <input type="checkbox"/> ENGR 212 Mechanics of Materials | 3        |
| <input type="checkbox"/> ENGR 213 Engineering Dynamics   | 3        |
|  | <hr/> 18 |

**TOTAL MINIMUM CREDITS: 18**