

**EFFECTIVE 2024 FALL: THIS PROGRAM IS IN TEACH-OUT STATUS.
NO NEW STUDENTS WILL BE ENROLLED 2024 FALL OR AFTER.
CURRENT STUDENTS MUST COMPLETE THE PROGRAM BY 2026 SPRING. LAST
SEMESTER THESE CLASSES WILL BE OFFERED IS 2026 SPRING.**

UNIVERSITY TRANSFER **Associate in Engineering (A10500)**

The Associate in Engineering (AE) degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of courses. Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic computer use.

The degree plan includes required general education and prerequisite courses that are acceptable to all state funded Bachelor of Engineering programs. Students who follow the degree progression plan will meet the entrance requirements at all of the North Carolina public Bachelor of Science Engineering programs. Associate in Engineering graduates may then apply to any of these programs without taking additional and sometimes duplicative courses. Admission to Engineering programs is highly competitive and admission is not guaranteed.

To be eligible for the transfer of credits under the AE to the Bachelor of Science in Engineering Articulation Agreement, community college graduates must obtain a grade of “C” or better in each course and an overall GPA of at least 2.5 on a 4.0 scale.

Transfer programs such as this require a "C" or better in all classes to graduate.

COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

| A. General Education Courses | Class | Lab | Work/ Clinical | Credit |
|--|--------------|------------|---------------------------|---------------|
| 1. English Composition (6 SHC) | | | | |
| ENG 111 Writing and Inquiry | 3 | 0 | 0 | 3 |
| ENG 112 Writing/Research in the Disciplines | 3 | 0 | 0 | 3 |
| 2. Humanities (3 SHC) | | | | |
| <i>Select one course from the following:</i> | | | | |
| ENG 231 American Literature I | 3 | 0 | 0 | 3 |
| ENG 232 American Literature II | 3 | 0 | 0 | 3 |
| ENG 241 British Literature I | 3 | 0 | 0 | 3 |
| ENG 242 British Literature II | 3 | 0 | 0 | 3 |
| PHI 215 Philosophical Issues | 3 | 0 | 0 | 3 |
| PHI 240 Introduction to Ethics | 3 | 0 | 0 | 3 |

| | | | | | |
|---|-------------------------------|---|---|---|---|
| REL 110 | World Religions | 3 | 0 | 0 | 3 |
| 3. Fine Arts and Communication (3 SHC) | | | | | |
| <i>Select one course from the following:</i> | | | | | |
| ART 111 | Art Appreciation | 3 | 0 | 0 | 3 |
| ART 114 | Art History Survey I | 3 | 0 | 0 | 3 |
| ART 115 | Art History Survey II | 3 | 0 | 0 | 3 |
| COM 231 | American Literature I | 3 | 0 | 0 | 3 |
| MUS 110 | Music Appreciation | 3 | 0 | 0 | 3 |
| 4. Social/Behavioral Sciences (6 SHC) | | | | | |
| Required | | | | | |
| ECO 251 | Principles of Microeconomics | 3 | 0 | 0 | 3 |
| <i>Select one course from the following:</i> | | | | | |
| HIS 111 | World Civilizations I | 3 | 0 | 0 | 3 |
| HIS 112 | World Civilizations II | 3 | 0 | 0 | 3 |
| HIS 131 | American History I | 3 | 0 | 0 | 3 |
| HIS 132 | American History II | 3 | 0 | 0 | 3 |
| POL 120 | American Government | 3 | 0 | 0 | 3 |
| PSY 150 | General Psychology | 3 | 0 | 0 | 3 |
| SOC 210 | Introduction to Sociology | 3 | 0 | 0 | 3 |
| 5. Mathematics (12 SHC) | | | | | |
| MAT 271 | Calculus I | 3 | 2 | 0 | 4 |
| MAT 272 | Calculus II | 3 | 2 | 0 | 4 |
| MAT 273 | Calculus III | 3 | 2 | 0 | 4 |
| 6. Natural Sciences (12 SHC) | | | | | |
| CHM 151 | General Chemistry I | 3 | 3 | 0 | 4 |
| PHY 251 | General Physics I | 3 | 3 | 0 | 4 |
| PHY 252 | General Physics II | 3 | 3 | 0 | 4 |
| B. Other Required Courses | | | | | |
| 1. Academic Transition (1 SHC) | | | | | |
| ACA 122 | College Transfer Success | 0 | 2 | 0 | 1 |
| 2. Pre-major Elective (2 SHC) | | | | | |
| EGR 150 | Introduction to Engineering | 1 | 2 | 0 | 2 |
| Other General Education and Pre-Major Elective Hours (15 SHC) | | | | | |
| BIO 111 | General Biology I | 3 | 3 | 0 | 4 |
| CHM 152 | General Chemistry II | 3 | 3 | 0 | 4 |
| CSC 151 | JAVA Programming | 2 | 3 | 0 | 3 |
| ECO 252 | Principles of Macroeconomics | 3 | 0 | 0 | 3 |
| EGR 220 | Engineering Statics | 3 | 0 | 0 | 3 |
| EGR 225 | Engineering Dynamics | 3 | 0 | 0 | 3 |
| MAT 285 | Differential Equations | 2 | 2 | 0 | 3 |
| PED 110 | Fitness and Wellness for Life | 1 | 2 | 0 | 2 |

Total Credit Hours

60

*Approved Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE
ENGINEERING (DAY)**

| | | | Class | Lab | Work/ Clinical | Credit |
|--------------------------------------|-----|-------------------------------------|-------|-----|-------------------|--------|
| First Year – Fall Semester | | | | | | |
| ACA | 122 | College Transfer Success | 0 | 2 | 0 | 1 |
| CHM | 151 | General Chemistry I | 3 | 3 | 0 | 4 |
| ENG | 111 | Writing and Inquiry | 3 | 0 | 0 | 3 |
| MAT | 271 | Calculus I | 3 | 2 | 0 | 4 |
| | | Humanities | 3 | 0 | 0 | 3 |
| | | | — | — | — | — |
| | | | 12 | 7 | 0 | 15 |
| First Year – Spring Semester | | | | | | |
| CHM | 152 | General Chemistry II | 3 | 3 | 0 | 4 |
| ENG | 112 | Writing/Research in the Disciplines | 3 | 0 | 0 | 3 |
| MAT | 272 | Calculus II | 3 | 2 | 0 | 4 |
| PHY | 251 | General Physics I | 3 | 3 | 0 | 4 |
| | | | — | — | — | — |
| | | | 12 | 8 | 0 | 15 |
| Second Year – Fall Semester | | | | | | |
| CSC | 151 | JAVA Programming | 2 | 3 | 0 | 3 |
| EGR | 150 | Introduction to Engineering | 1 | 2 | 0 | 2 |
| EGR | 220 | Engineering Statics | 3 | 0 | 0 | 3 |
| MAT | 273 | Calculus III | 3 | 2 | 0 | 4 |
| PHY | 252 | General Physics II | 3 | 3 | 0 | 4 |
| | | | — | — | — | — |
| | | | 12 | 10 | 0 | 16 |
| Second Year – Spring Semester | | | | | | |
| ECO | 251 | Principles of Microeconomics | 3 | 0 | 0 | 3 |
| EGR | 225 | Engineering Dynamics | 3 | 0 | 0 | 3 |
| MAT | 285 | Differential Equation | 2 | 2 | 0 | 3 |
| | | Fine Arts/Communication | 3 | 0 | 0 | 3 |
| | | Social/Behavioral Sciences | 3 | 0 | 0 | 3 |
| | | | — | — | — | — |
| | | | 14 | 2 | 0 | 15 |
| Total Credit Hours | | | | | 61 | |