

## 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.

### 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.

	Class	Lab	Work/ Clinical	Credit
<b>A. General Education Courses</b>				
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>B. Other Required Courses</b>					
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
COM 110	Introduction to Communication	3	0	0	3
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)**

			Work/			
			Class	Lab	Clinical	Credit
<b>First Year – Fall Semester</b>						
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
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			12	7	0	15
<b>First Year – Spring Semester</b>						
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
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			12	8	0	15
<b>Second Year – Fall Semester</b>						
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
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			12	10	0	16
<b>Second Year – Spring Semester</b>						
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
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			14	2	0	15
<b>Total Credit Hours</b>					<b>61</b>	