

## 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 credit 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.

*Note: Calculus I is the lowest level math course that will be accepted by the Engineering programs for transfer as a math credit. Students who are not calculus –ready will need to take additional math courses.*

<b>Fall Semester 1</b>		<b>Lec</b>	<b>Lab</b>	<b>Clinic</b>	<b>Credit</b>
ACA-122	College Transfer Success	0	2	0	1
CHM-151	General Chemistry I	3	3	0	4
EGR-150	Intro to Engineering	1	2	0	2
ENG-111	Writing and Inquiry	3	0	0	3
MAT-271	Calculus I	3	2	0	4
<b>Total: 14</b>					
<b>Spring Semester 1</b>		<b>Lec</b>	<b>Lab</b>	<b>Clinic</b>	<b>Credit</b>
DFT-170	Engineering Graphics	2	2	0	3
ECO-251	Principles of Microeconomics	3	0	0	3
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
<b>Total: 17</b>					
<b>Fall Semester 2</b>		<b>Lec</b>	<b>Lab</b>	<b>Clinic</b>	<b>Credit</b>
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
	Other General Education Elective	3	3	0	4
<b>Total: 15</b>					
<b>Spring Semester 2</b>		<b>Lec</b>	<b>Lab</b>	<b>Clinic</b>	<b>Credit</b>
COM-231	Public Speaking	3	0	0	3
EGR-225	Engineering Dynamics	3	0	0	3
	Humanities/Fine Arts	3	0	0	3
	Social and Behavioral Sciences	3	0	0	3
	Other Required Hours	1-3	0-3	0	3
<b>Total: 15</b>					

**Total Credit Hours: 61**

<b>Humanities Electives: Choose 3 hours from the following courses:</b>		<b>Lec</b>	<b>Lab</b>	<b>Clinic</b>	<b>Credit</b>
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

**Social and Behavioral Sciences Electives:**

<b>Choose 3 hours from the following courses:</b>		<b>Lec</b>	<b>Lab</b>	<b>Clinic</b>	<b>Credit</b>
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

**Other General Education Elective: Choose 4 hours from the following courses:**

		<b>Lec</b>	<b>Lab</b>	<b>Clinic</b>	<b>Credit</b>
BIO-111	General Biology I	3	3	0	4
CHM-152	General Chemistry II	3	3	0	4

**Other Required Hours: Choose 3 hours from the following courses:**

		<b>Lec</b>	<b>Lab</b>	<b>Clinic</b>	<b>Credit</b>
CSC-134	C++ Programming	2	3	0	3
ECO-252	Principles of Macroeconomics	3	0	0	3
HUM-110	Technology and Society	3	0	0	3
MAT-285	Differential Equations	2	2	0	3
PED-110	Fit and Well for Life	1	2	0	2
PHI-240	Introduction to Ethics	3	0	0	3