

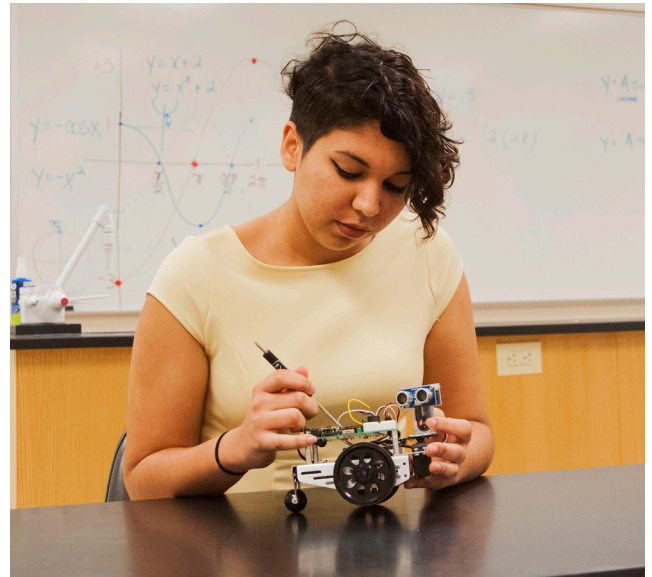
# College Transfer Programs

## A 10 50 0 Associate in Engineering

### CONCENTRATION OVERVIEW

The Engineering curriculum is designed to prepare students to successfully transfer to an engineering degree program in a four-year university. 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.

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.



### Student Learning Outcomes – Upon completion of the program, students will:

1. Prepare a deliverable designed to increase knowledge, foster understanding, or promote change in audiences' attitudes, values, beliefs, or behavior.
2. Apply appropriate strategies to identify materials, evaluate information, and reference relevant discipline materials to effectively address a topic.
3. Use mathematical skills to logically analyze and interpret mathematics in context.
4. Develop meaningful questions, gather and analyze evidence, and create evidence-based conclusions or solutions.

In compliance with state transfer articulation agreements, only courses with a grade of C or higher will fulfill degree requirements in this program. To be eligible for the transfer of credits under the AE to the Bachelor of Science in Engineering Articulation Agreement, student must have an overall GPA of at least 2.5 on a 4.0 scale.

**Partnership:** College of The Albemarle has articulation agreements with certain universities for students transferring into specific programs of study. Students can complete the first two years of that specific baccalaureate degree at College of The Albemarle. Students should check with their advisor and the COA website for more information. [www.albemarle.edu/student-resources/transfer-from-coa/](http://www.albemarle.edu/student-resources/transfer-from-coa/)

The [Uniform Articulation Agreement](#) for the Associate in Engineering promotes educational advancement opportunities for Associate in Engineering (A10500) completers and the constituent institutions of The University of North Carolina in order to complete Bachelor of Science in Engineering degrees. This Associate in Engineering to Bachelor of Science in Engineering Articulation Agreement (AE to BSE AA) is between the State Board of North Carolina Community Colleges and The University of North Carolina Board of Governors. It applies to all NC community colleges that operate the AE program and to UNC constituent institutions (ECU, NC A&T, NCSU, UNC-Charlotte and Western Carolina).

\*This program offers a [Career and College Promise pathway \(CCP\) P1052C](#). Courses within the pathway are highlighted in yellow.

# A 10 50 0 Associate in Engineering Universal General Education Transfer Component

COURSE NUMBER	COURSE TITLE	SEMESTER	CO-REQUISITES	PRE-REQUISITES	CREDITS
<b>STUDENT SUCCESS</b>					<b>1</b>
ACA 122	College Transfer Success			None	1
<b>COMPOSITION</b>					<b>6</b>
ENG 111	Writing and Inquiry		ENG 011	ENG 002 Tier 1	3
ENG 112	Writing/Research in the Disciplines			ENG 111	3
<b>FINE ARTS &amp; COMMUNICATIONS</b>					<b>3</b>
COM 231	Public Speaking			ENG 111	3
<b>HUMANITIES</b>					<b>3</b>
<b>Select 2 courses from:</b> ENG 231 (ENG 112), ENG 232 (ENG 112), ENG 241 (ENG 111), ENG 242 (ENG 111) or PHI 240 (ENG 111)					
				Varies – pre-requisites in parentheses	3
<b>SOCIAL/BEHAVIORAL SCIENCES</b>					<b>6</b>
<b>Select 1 course from:</b> HIS 111 (ENG 002 Tier 1), HIS 112 (ENG 002 Tier 1), HIS 131 (ENG 002 Tier 1), HIS 132 (ENG 002 Tier 1), POL 120 (ENG 002 Tier 1), PSY 150 (ENG 002 Tier 1), or SOC 210 (ENG 002 Tier 1)					
				Varies – pre-requisites in parentheses	3
ECO 251	Principles of Microeconomics			ENG 002 Tier 1 and MAT 003 Tier 1	3
<b>MATHEMATICS</b>					<b>12</b>
MAT 271	Calculus I			MAT 172 or MAT 175 with a grade of C or higher	4
MAT 272	Calculus II			MAT 271 with a grade of C or higher	4
MAT 273	Calculus III			MAT 272 with a grade of C or higher	4

<b>NATURAL SCIENCES</b>					<b>12</b>
PHY 251	General Physics I		MAT 272	MAT 271	4
PHY 252	General Physics II			PHY 251, MAT 272	4
CHM 151	General Chemistry 1			ENG 002 Tier 1, MAT 003 Tier 2, and either CHM 090 or one unit of HS chemistry	4
<b>OTHER GENERAL EDUCATION</b>					<b>3-4</b>
<b>Select 1 course from:</b>					
BIO 111 (ENG 002 Tier 1 and MAT 003 Tier 1), CHM 152 (CHM 151), COM 110, ECO 252 (ENG 002 Tier 1 and MAT 003 Tier 1), or PHI 240 (ENG 111)					
				Varies – pre-requisites in parentheses	3-4
<b>TOTAL UNIVERSAL GENERAL EDUCATION TRANSFER HOURS</b>					<b>46-47</b>

<b>OTHER REQUIRED PRE-MAJOR ELECTIVE</b>					<b>2</b>
EGR 150	Intro to Engineering			None	2
<b>OTHER GENERAL EDUCATION AND PRE-MAJOR ELECTIVES</b>					<b>11-12</b>
<b>Select 11-12 credit hours from:</b>					
BIO 111 (ENG 002 Tier 1 and MAT 003 Tier 1), CHM 152 (CHM 151), COM 110, CSC 151 (CIS 110 or CIS 111 or CIS 115), DFT 170, ECO 252 (ENG 002 Tier 1 and MAT 003 Tier 1), MAT 280 (MAT 271), or PED 110					
				Varies – pre-requisites in parentheses	Varies
				Varies – pre-requisites in parentheses	Varies
				Varies – pre-requisites in parentheses	Varies
				Varies – pre-requisites in parentheses	Varies
<b>TOTAL SEMESTER HOURS REQUIRED FOR ASSOCIATE DEGREE</b>					<b>60-61</b>

First Year Fall Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
ACA 122 College Transfer Success	None	0	2	0	2	1
ENG 111 Writing and Inquiry	Pre-Requisites: ENG 002 Tier 1 Co-Requisites: ENG 011	3	0	0	3	3
Select one from the following: HIS 111, HIS 112, HIS 131, HIS 132, POL 120, PSY 150, SOC 210	Pre-Requisites: ENG 002 Tier 1	3	0	0	3	3
MAT 271 Calculus I*	Pre-Requisites: MAT 172 or MAT 175 (with a C or higher)	3	2	0	5	4
CHM 151 General Chemistry I	Pre-Requisites: ENG 002 Tier 1, MAT 003 Tier 2 and CHM 090 or one unit of HS Chemistry	3	3	0	6	4
<b>TOTAL SEMESTER HOURS</b>		<b>12</b>	<b>7</b>	<b>0</b>	<b>19</b>	<b>15</b>
First Year Spring Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
ENG 112 Writing/Research in the Disciplines	Pre-Requisites: ENG 111	3	0	0	3	3
COM 231 Public Speaking	Pre-Requisites: ENG 111	3	0	0	3	3
MAT 272 Calculus II*	Pre-Requisites: MAT 271 (with a C or higher)	3	2	0	5	4
PHY 251 General Physics I**	Pre-Requisites: MAT 271 Co-Requisites: MAT 272	3	3	0	6	4
EGR 150 Intro to Engineering**	None	1	2	0	3	2
<b>TOTAL SEMESTER HOURS</b>		<b>13</b>	<b>7</b>	<b>0</b>	<b>20</b>	<b>16</b>

\* This course is only offered Fall Semester

\*\* This course is only offered Spring Semester

Second Year Fall Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
MAT 273 Calculus III*	Pre-Requisites: MAT 272 (with a C or higher)	3	2	0	5	4
Select one of the following: ENG 231, ENG 232, ENG 241, ENG 242, PHI 240	Pre-Requisites: Varies	3	0	0	3	3
PHY 252 General Physics II*	Pre-Requisites: MAT 272 and PHY 251	3	3	0	6	4
Select one of the following: BIO 111, CHM 152, COM 110, CSC 151, DFT 170*, ECO 252, MAT 280*, PED 110	Pre-Requisites: Varies	1-3	0-3	0	3-6	2-4
<b>TOTAL SEMESTER HOURS</b>		<b>10-12</b>	<b>5-8</b>	<b>0</b>	<b>17-20</b>	<b>13-15</b>
Second Year Spring Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
ECO 251 Principles of Microeconomics	Pre-Requisites: ENG 002 Tier 1 and MAT 003 Tier 1	3	3	0	3	3
Select one of the following: BIO 111, CHM 152, COM 110, ECO 252, PHI 240	Pre-Requisites: Varies	3	0-3	0	3-6	3-4
Select 2 to 4 of the following courses: BIO 111, CHM 152, COM 110, CSC 151, DFT 170*, ECO 252, MAT 280**, PED 110	Pre-Requisites: Varies	Varies	Varies	0	Varies	7-10
<b>TOTAL SEMESTER HOURS</b>		<b>Varies</b>	<b>Varies</b>	<b>0</b>	<b>Varies</b>	<b>14-17</b>
<b>TOTAL DEGREE HOURS</b>						<b>60-61</b> ***

\* This course is only offered Fall Semester

\*\* This course is only offered Spring Semester

\*\*\*Number of hours of elective coursework needed is based upon course choices made in in other general education hours and pre-major elective courses. Courses should be chosen based upon requirements for student's intended major at the receiving four-year institution. A student must have 60-61 credit hours to complete the degree.

## Associate in Engineering (Part-Time)

Term 1 Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
ENG 111 Writing and Inquiry	Pre-Requisites: ENG 002 Tier 1 Co-Requisites: ENG 011	3	0	0	3	3
ACA 122 College Transfer Success	Pre-Requisites: None Co-Requisites: None	0	2	0	2	1
CHM 151 General Chemistry I	Pre-Requisites: ENG 002 Tier 1, MAT 003 Tier 2 and CHM 090 or one unit of HS Chemistry	3	3	0	6	4
<b>TOTAL SEMESTER HOURS</b>		<b>6</b>	<b>5</b>	<b>0</b>	<b>11</b>	<b>8</b>

Term 2 Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
ENG 112 Writing/Research in Disciplines	Pre-Requisites: ENG 111 Co-Requisites: None	3	0	0	3	3
EGR 150 Intro to Engineering**	None	1	2	0	3	2
<b>TOTAL SEMESTER HOURS</b>		<b>4</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>5</b>

\* This course is only offered Spring Semester

Term 3 Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
Select one of the following: ENG 231, ENG 232, ENG 241, ENG 242, PHI 240	Pre-Requisites: Varies	3	0	0	3	3
Select one Social Science from the following: HIS 111, HIS 112, HIS 131, HIS 132, POL 120, PSY 150, SOC 210	Pre-Requisites: ENG 002 Tier 1	3	0	0	3	3
<b>TOTAL SEMESTER HOURS</b>		<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>6</b>

Term 4 Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
Select one of the following: BIO 111, CHM 152, COM 110, CSC 151, DFT 170*, ECO 252, MAT 280*, PED 110 Recommended: DFT 170*	Pre-Requisites: Varies	1-3	0-3	0	3-6	2-4
MAT 271 Calculus I*	Pre-Requisites: MAT 172 or MAT 175 (with a C or higher)	3	2	0	5	4
<b>TOTAL SEMESTER HOURS</b>		<b>4-6</b>	<b>2-5</b>	<b>0</b>	<b>8-11</b>	<b>6-8</b>

\* This course is only offered Fall Semester

Term 5 Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
MAT 272 Calculus II*	Pre-Requisites: MAT 271 (with a C or higher)	3	2	0	5	4
PHY 251 General Physics I**	Pre-Requisites: MAT 271 Co-Requisites: MAT 272	3	3	0	6	4
<b>TOTAL SEMESTER HOURS</b>		<b>6</b>	<b>5</b>	<b>0</b>	<b>11</b>	<b>8</b>

\* This course is only offered Spring Semester

Term 6 Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
COM 231 Public Speaking	Pre-Requisites: ENG 111 Co-Requisites: None	3	0	0	3	3
Select one of the following: BIO 111, CHM 152, COM 110, CSC 151, DFT 170*, ECO 252, MAT 280*, PED 110	Pre-Requisites: Varies	1-3	0-3	0	3-6	2-4
<b>TOTAL SEMESTER HOURS</b>		<b>4-6</b>	<b>0-3</b>	<b>0</b>	<b>6-12</b>	<b>5-7</b>

Term 7 Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
MAT 273 Calculus III*	Pre-Requisites: MAT 272 (with a C or higher)	3	2	0	5	4
PHY 252 General Physics II*	Pre-Requisites: MAT 272 and PHY 251	3	3	0	6	4
<b>TOTAL SEMESTER HOURS</b>		<b>6</b>	<b>5</b>	<b>0</b>	<b>11</b>	<b>8</b>

\* This course is only offered Fall Semester

Term 8 Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
ECO 251 Principles of Microeconomics	Pre-Requisites: ENG 002 Tier 1 and MAT 003 Tier 1	3	3	0	3	3
Select one of the following: BIO 111, CHM 152, COM 110, CSC 151, DFT 170*, ECO 252, MAT 280*, PED 110	Pre-Requisites: Varies	1-3	0-3	0	3-6	2-4
<b>TOTAL SEMESTER HOURS</b>		<b>4-6</b>	<b>3-6</b>	<b>0</b>	<b>6-9</b>	<b>5-7</b>

Term 9 Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
Select one of the following: BIO 111, CHM 152, COM 110, ECO 252, PHI 240	Pre-Requisites: Varies	Varies	Varies	0	Varies	3-4
Select one of the following: BIO 111, CHM 152, COM 110, CSC 151, DFT 170*, ECO 252, MAT 280*, PED 110	Pre-Requisites: Varies	Varies	Varies	0	Varies	Varies
<b>TOTAL SEMESTER HOURS</b>		<b>Varies</b>	<b>Varies</b>	<b>0</b>	<b>Varies</b>	<b>Varies</b>