Associate in Engineering

A10500 (Associate Degree)

This program is designed to promote educational advancement opportunities for Associate in Engineering degree completers moving between the NC community colleges and the constituent institutions of The University of North Carolina in order to complete Bachelor of Science in Engineering degrees. The student may complete course work equivalent to the first two years of study required for a bachelor's degree. Unless otherwise indicated, classes in this program satisfy the articulation agreement with colleges in the University of North Carolina System and are eligible for transfer to four-year degree programs, provided all other requirements for transfer are satisfied.

The Associate in Engineering degree (A.E.) is awarded upon completion of program requirements. Graduates usually transfer to a senior institution with junior status. Follow up studies show that community college transfer students are generally successful in their studies at senior institutions.

In addition to the courses listed below, students may be required to take transition/co-requisite classes based on RISE criteria. These classes do not count toward hours required for graduation.

UNIVERSAL GENERAL EDUCATION TRANSFER COMPONENT (45-46 SHC)

Title			Class/Lab/Credit		
English Composition					
ENG	111	Writing and Inquiry	3	0	3
ENG	112	Writing/Research in the Disciplines	3	0	3
Humanities: Choose One					
ENG	231	American Literature I	3	0	3
ENG	232	American Literature II	3	0	3
ENG	241	British Literature I	3	0	3
ENG	242	British Literature II	3	0	3
Fine Arts and Communications: Choose One					
COM	231	Public Speaking	3	0	3
ART	111	Art Appreciation	3	0	3
MUS	110	Music Appreciation	3	0	3
Social/Behavioral Sciences					
ECO	251	Principles of Microeconomics	3	0	3
	Choose One:				
HIS	111	World Civilizations I	3	0	3
HIS	112	World Civilizations II	3	0	3
HIS	131	American History I	3	0	3
HIS	132	American History II	3	0	3
POL	120	American Government	3	0	3
PSY	150	General Psychology	3	0	3
SOC	210	Introduction to Sociology	3	0	3

Mathematics

MAT	271	Calculus I		3	2	4
MAT	272	Calculus II		3	2	4
MAT	273	Calculus III		3	2	4

Natural Sciences

CHM	151	General Chemistry I		3	3	4
PHY	251	General Physics I		3	3	4
PHY	252	General Physics II	3	3	4	

Other General Education

Choose One:

BIO	111	General Biology I		3	3	4
CHM	152	General Chemistry II		3	3	4
COM	110	Introduction to Communication		3	0	3
COM	231	Public Speaking		3	0	3
ECO	252	Principles of Macroeconomics		3	0	3
HUM	110	Technology and Society		3	0	3

OTHER REQUIRED HOURS (15-16 SHC)

Local MTCC Requirements (5 semester hours)

Must be completed within first 30 hours of enrollment.

ACA	122	College Transfer Success		0	2	1
EGR	150	Introduction to Engineering		1	2	2
PED	110	Fitness and Wellness for Life		1	2	2

Other General Education and Pre-major Electives (10-11 SHC)

Select 10-11 SHC of courses from the following courses classified as pre-major, elective, or general education courses within the Comprehensive Articulation Agreement. ***(Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution. Students should choose courses appropriate to the specific university and engineering major requirements.)***

BIO	111	General Biology I		3	3	4
CHM	152	General Chemistry II		3	3	4
COM	110	Introduction to Communication		3	0	3
COM	231	Public Speaking		3	0	3
CSC	134	C++ Programming		2	3	3
CSC	151	JAVA Programming		2	3	3
DFT	170	Engineering Graphics		2	2	3
ECO	252	Principles of Macroeconomics		3	0	3
EGR	220	Engineering Statics		3	0	3
HUM	110	Technology and Society		3	0	3
MAT	280	Linear Algebra		2	2	3
MAT	285	Differential Equations		2	2	3

Total Semester Hours Credit (SHC) in Program: 60 – 61

Recommended Semester Schedule
(2 year plan if starting with MAT 271 Calculus I)

First Year-Fall

ACA	122	College Transfer Success	0	2	1
MAT	271	Calculus I	3	2	4
ENG	111	Writing and Inquiry	3	0	3
CHM	151	General Chemistry I	3	3	4
ECO	251	Principles of Microeconomics	3	0	3

First Year-Spring

MAT	272	Calculus II	3	2	4
ENG	112	Writing/Research in the Disciplines	3	0	3
EGR	150	Introduction to Engineering	1	2	2
PED	110	Fitness and Wellness for Life	1	2	2
Pre-Major Engineering Elective					3 or 4
Fine Arts and Communication Requirement			3	0	3

Second Year-Fall

MAT	273	Calculus III	3	2	4
PHY	251	General Physics I	3	3	4
Engineering Pre-Major Elective					3 or 4
Humanities Requirement			3	0	3
General Education Requirement					3 or 4

Second Year-Spring

PHY	252	General Physics II	3	3	4
Social Science Elective			3	0	3
Engineering Pre-Major Elective					3 or 4
Engineering Pre-Major Elective					3 or 4