

2019-2020 Pathway for Bachelor of Science in Biological Engineering (Natural Resources Engineering Track)

Please see your academic advisor to develop your individual plan. This is only meant to be a guide.

A maximum of 64 hours is transferable from a North Carolina Community College.

Freshman/First Year							
First Semester - Fall				Second Semester - Spring			
CC Course	N.C. A&T Equivalent	Credit Hours	Required/Notes	CC Course	N.C. A&T Equivalent	Credit Hours	Required/Notes
EGR 111	GEEN 111	1			BIOE 121	1	
ENG 111	ENGL 100	3	UGETC: Eng Comp	ENG 112	ENGL 101	3	UGETC: Eng Comp
CHM 151	CHEM 106	3	UGETC: Nat. Sci.	MAT 272	MATH 132	4	GEN ED: Mathematics
	CHEM 116	1		PHY 251	PHYS 241	3	UGETC: Nat. Science
MAT 271	MATH 131	4	UGETC: Math		PHYS 251	1	
EGR 150	GEEN 100	2	Pre-major Elective	BIO 111	BIOL 101	4	UGETC: Nat. Science
Total Credit Hours			14	Total Credit Hours			16

Sophomore/Second Year							
Third Semester - Fall				Fourth Semester - Spring			
CC Course	N.C. A&T Equivalent	Credit Hours	Required/Notes	CC Course	N.C. A&T Equivalent	Credit Hours	Required/Notes
CSC 134	GEEN 161	2		AA Studies Elective ²	AA Studies Elective	3	
	MEEN 230	3		EGR 225	CAEE 334	2	Pre-major Elective
PHY 252	PHYS 242	3			CAEE 362	3	
	PHYS 252	1		BIO 221 or BIO 275	BIOL 221	4	
MAT 273	MATH 231	4		MATH 285	MATH 341	3	
	BIOE 200	1					
See notes below ¹	Humanities Elective	3					
Total Credit Hours			17	Total Credit Hours			15

Junior/Third Year							
Fifth Semester - Fall				Sixth Semester - Spring			
CC Course	N.C. A&T Equivalent	Credit Hours	Required/Notes	CC Course	N.C. A&T Equivalent	Credit Hours	Required/Notes
	BIOE 204	3			BIOE 216	3	
	ISEN 260	2			BIOE 230	3	
	MEEN 241	3			BIOE 350	3	
SBS Elective ⁴	Soc/Behav Sci Elective	3			BIOE 380	3	
	BIOE 340	3		Global Studies Elective ¹	Global Studies Elective	3	
	BIOE 360/CAEE 364	3					
Total Credit Hours 17				Total Credit Hours 15			

Senior/Fourth Year							
Seventh Semester - Fall				Eighth Semester - Spring			
CC Course	N.C. A&T Equivalent	Credit Hours	Required/Notes	CC Course	N.C. A&T Equivalent	Credit Hours	Required/Notes
MAT 152	Statistics Elective	3	UGETC: Math		BIOE 424	3	
	BIOE 400	3			BIOE 423	3	
					BIOE 496	2	
	BIOE 434	3			BIOE Elective	2	
	ECEN 340	3			BIOE 425	3	
	BIOE 495	1					
Total Credit Hours 13				Total Credit Hours 13			

Total Required Hours: 120

¹HFA Elective- Select one of the following: HUM 110, HUM 130, HUM 211, HUM 212, ENG 261, ENG 262, ENG 273, MUS 110, PHI 210, REL 110, PHI 240, COM 110, **or** COM 111

²African/American Studies Elective- Select one of the following: ENG 273, HIS 221, HIS 222, **or** HIS 223.

³Global Studies Elective- Select one of the following: HIS 111, HIS 112, HIS 121, HIS 122, BUS 240, **or** REL 110.

⁴Social/Behavioral Science Elective- Select one of the following: BUS 125, ECO 251, ECO 252, HIS 131, HIS 132, HIS 221, HIS 222, HIS 223, HIS 112, HIS 122, POL 120, PSY 150, SOC 210, ANT 210, **or** HEA 110.

NOTE: Courses may only satisfy ONE general education requirement (e.g. ENG 273/ENGL 333 can satisfy HFA or AA, but not both).

MAJOR PROGRAM REQUIREMENTS

Students must earn a C or better in the following courses:

BIOE 330	ISEN 370
BIOE 400	INEN 370
BIOE 423	MATH 131
BIOE 495	MATH 132
BIOE 496	MATH 224
CAEE 334	MATH 231
CHEM 106	MATH 341
CHEM 107	MEEN 441
ECEN 340	PHYS 241
ECON 305	PHYS 242
GEEN 100	CAEE 362

BIOE Electives:

BIOE 404, BIOE 422, BIOE 425, BIOE 426, BIOE 485, BIOE 490, CIEN 310, or other junior or senior level engineering courses approved by the faculty advisor.

Statistics Elective:

MATH, 224, ECON 305, ISEN 370, and CAEE 304.

Humanities/Fine Arts:

ENGL 200, ENGL 201, ENGL 230, ENGL 231, MUS 216, PHIL 260, PHIL 266, PHIL 267, PHIL 268, SPCH 250, LIBS 202, MUSI 220, PHIL 265 or PHIL 315 or courses approved by the faculty advisor.

Social/Behavioral Sciences:

BUED 279, ECON 200, ECON 201, FCS 134, FCS 181, FCS 260, HIST 103, HIST 104, HIST 105, HIST 106, HIST 107, HIST 130, HIST 206, HIST 207, HIST 216, HIST 231, JOMC 240, POLI 110, PSYC 101, SOCI 100, SOCI 200, SSFM 226 or courses approved by the faculty advisor.

Knowledge of African American Culture and History:

ENGL 333, ENGL 334, HIST 103, HIST 106, HIST 107, HIST 201, HIST 202, LIBS 202, MUSI 220 or courses approved by the faculty advisor.

Global Awareness:

HIST 130, HIST 207, HIST 216, HIST 231, MGMT 221, PHIL 103, PHIL 201, or courses approved by the faculty advisor

All of your GEN ED and UGETC requirements are satisfied, if you have earned an Associate in Arts or Associate in Science Degree from a North Carolina Community College.