

NC Community College Four-Year Pathway Plan

Schedule for Full-Time Students
Pursuing AS Degree & transfer into Biological Engineering (BS) at NCSU.
(Placed Out Of All Developmental Courses)

North Carolina Community College classes are listed below in bold with the NC State degree requirements fulfilled listed next to the classes.

North Carolina State University **strongly recommends** students complete their Associate's degree prior to transferring to NCSU. Pathways are structured for students who have completed all requirements for their Associate's degree and [qualify for the CAA](#).

*****This degree pathway requires 4 summer courses at NC State after completion of the AS degree. Please see the NC State schedule of courses for more details.*****

NC COMMUNITY COLLEGE FIRST YEAR				
Fall Semester	Credit		Spring Semester	Credit
ENG 111 - ENG 101: Academic Writing and Research	3		ENG 112 - GEP Requirement	3
MAT 271 – MA 141, Calculus I	4		MAT 272 – MA 241, Calculus II	4
CHM 151 – CH 101: General Chemistry I, CH 102: General Chemistry I Lab	4		PHY 251 – PY 205 & PY 206	4
ECO 251 – EC 201, Departmental Economics Requirement	3		EGR 150 – Departmental Substitution for E 101	2
ACA 122 - Free Elective	1		CHM 152 – CH 201: Quantitative Chemistry, CH 202: Quantitative Chemistry Lab	4
TOTAL CREDIT HOURS	15		TOTAL CREDIT HOURS	17

Students must take ACA 122 in the first or second semester.

NC COMMUNITY COLLEGE SECOND YEAR				
Fall Semester	Credit		Spring Semester	Credit
PHY 252 – PY 208 & PY 209	4		EGR 220 – Engineering Elective	3
ENG 231 – ENG 265, GEP Humanities	3		COM 231 – COM 110, GEP Requirement	3
MAT 273 – MA 242, Calculus III	4		BIO 111 – BIO 183, Intro to Cellular and Molecular Biology	4
HUM 110 – GEP Requirement	3		MAT 285 – MA 341, Differential Equations	3
TOTAL CREDIT HOURS	14		PSY 150 – PSY 200, GEP Social Science	3
			TOTAL CREDIT HOURS	16

THIS SHEET IS FOR ADVISING PURPOSES ONLY. Students should work with their Advisor to determine course selections that will result in the greatest transferrable credit, for the intended program, upon transfer to the four-year school.

Note 4-semester outline based upon no pre-requisites classes required.

- Students should seek academic advising to determine the best courses and sequence to meet their educational goals and degree requirements.
- Following the Pathway to Degree does not guarantee admission to NC State University or guarantee an AS degree or BS degree will be conferred.
- Please refer to NC State Undergraduate Admissions for more information on admission to NC State and the transfer of credits to NC State: <http://admissions.ncsu.edu/transfer-students/>

NC STATE UNIVERSITY

Schedule of Courses for the Biological Engineering (BS) (11BEBS)

Before applying please consult the [Transfer Admission Review Standards](#) for admission into the College of Engineering.

*****Students will need to complete both E 115, CSC 116, MAE 201, and MAE 208 (10 hours total credit) at NC State summer school before matriculating in the Fall. *****

NC STATE JUNIOR YEAR				
Fall Semester	Credit		Spring Semester	Credit
BAE 302: Transport Phenomena	3		BAE 100: Introduction to Biological Engineering	1
BAE 305: BE Circuits	3		BAE 202: Shop Processes and Management	4
MAE 308: Fluid Mechanics or CE 382: Hydraulics	3		BAE Elective	3
BAE Elective	3		BAE 401: Instrumentation for Biological Systems	3
Biological Science or Chemistry Elective	3		Advanced Biology Elective	3
TOTAL CREDIT HOURS	15		TOTAL CREDIT HOURS	14

NC STATE SENIOR YEAR				
Fall Semester	Credit		Spring Semester	Credit
MAE 314: Solid Mechanics or CE 313: Mechanics of Solids	3		BAE 452: Engineering Design II	2
ST 370: Probability and Statistics for Engineers	3		BAE Elective	3
BAE 451: Engineering Design I	2		Advanced Biological Engineering Elective	3
Engineering Elective	3		Ethics Elective	3
Engineering Elective	3		ENG 331: Com. Engr. & Tech. or ENG 333: Com. Sci. & Res.	3
TOTAL CREDIT HOURS	14		TOTAL CREDIT HOURS	14

Minimum Credit Hours Required for Graduation:	125
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Hours Remaining in NC State Degree:	67
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