

NC Community College Four-Year Pathway Plan

Schedule for Full-Time Students

Pursuing AS Degree & transfer into Materials Science & 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 2 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		DFT 170 – GC 120, GEP Requirement	3
ECO 251 – EC 201, Departmental Economics Requirement	3		PHY 251 – PY 205 & PY 206	4
ACA 122 - Free Elective	1		EGR 150 – Departmental Substitution for E 101	2
TOTAL CREDIT HOURS	15		TOTAL CREDIT HOURS	16

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		ENG 231 – ENG 265, GEP Humanities	3
CHM 152 – CH 201/202: Quantitative Chemistry & Lab	4		COM 231 – GEP Requirement	3
MAT 273 – MA 242, Calculus III	4		EGR 220 – MAE 206, Engineering Elective	3
HUM 110 – STS 214, GEP Interdisciplinary Perspectives	3		PSY 150 – PSY 200, GEP Social Sciences	3
TOTAL CREDIT HOURS	15		MAT 285 – MA 341: Differential Equations	3
			TOTAL CREDIT HOURS	15

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 Materials Science & Engineering (BS) (14MSEBS)

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

*****Students will need to complete ST 370 & MSE 201 (6 hours total credit) at NC State summer school before matriculating in the Fall.*****

NC STATE JUNIOR YEAR				
Fall Semester	Credit		Spring Semester	Credit
E 115: Intro to Computing Environments	1		MSE 255: Structural Analysis of Materials	2
CH 220: Organic Chemistry I	4		MSE 260: Mathematical Methods for Materials Engineers	3
MSE 300: Structure Materials Nanoscale	3		MSE 270: MSE Seminar	1
MSE 301: Thermodynamics of MAterials	3		MSE 355: Electrical Magnetic & Optical Properties of Materials	3
MSE 320: Defects in Solids	3		MSE 360: Kinetic Processes in Materials	3
MSE 335: Analysis of Materials Properties	2		MSE 370: Microstructure of Inorganic Materials	3
TOTAL CREDIT HOURS	16		MSE 380: Microstructure of Organic Materials	3
			TOTAL CREDIT HOURS	18

NC STATE SENIOR YEAR				
Fall Semester	Credit		Spring Semester	Credit
MSE 420: Mechanical Properties of Materials	3		MSE 470: MSE Senior Design Project	3
MSE 423: Materials Engineering & Design	1		MSE 480: Materials Forensics & Degradation	3
ECE 331: Principles of Electrical Engineering	3		Tech Elective	3
MSE Processing I	3		Tech Elective	3
Tech Elective	3		Ethics	3
TOTAL CREDIT HOURS	13		TOTAL CREDIT HOURS	15

Minimum Credit Hours Required for Graduation:	126
Hours Remaining in NC State Degree:	68

