

**North Carolina Community College courses that fulfill
UNC Asheville / NCSU College of Engineering Requirements
of the Joint Bachelor of Science in Engineering degree
with a Concentration in Mechatronics (JEM)**

Subject Requirement	Community College Courses	Equivalent JEM Courses
English Composition	ENG 111(3) +[112(3) or 113(3) or 114(3)]	LANG 120(4)
Math	MAT 271 (4) MAT 272 (4) MAT 273 (4)	MATH 191 (4) MATH 192 (4) MATH 291 (4)
Chemistry	CHM 151 (4) *	CHEM 132 (3) + CHEM 111 (1)
Physics	PHY 251 (4) PHY 252 (4)	PHYS 221(4) PHYS 222 (4)
Humanities	HIS 111 (3) or HIS 121 (3) or HIS 211 (3) or HUM 211 (3)	HUM 124 (4)
	HIS 112 (3) or HIS 122 (3) or HIS 212 (3) or HUM 212 (3)	HUM 214 (4)
Economics	ECO 251 (3) *	ECON 102 (3)
Arts	Two courses from ART 111, DRAM 111 and MUS 110 (3+3)	ARTS 310 (3)
Physical Education	Lecture + Lab PED 110 or HEA 110 + PED 113, 117, 121, 145, 152, 153, or 155	HF 152 (2) or HF 153 (3)
Foreign Language	111 +112 (3+3)	110 + 120 (3+3)

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* If the NCCC General Education 44 SCH Core requirements are satisfied, then the UNCA Cluster 3 requirement is considered satisfied. If not, then courses identified with * do not satisfy the Cluster 3 requirement and additional coursework will be required. See your CC catalog for details.