

North Carolina State University

Materials Science and Engineer. Curriculum (Effective 07-01-2021)

1 + 3 Program with UNC Asheville

FALL SEMESTER

SPRING SEMESTER

Freshman Year (UNC Asheville)

MATH 191	Calculus I	4	MATH 192	Calculus II	4
LANG 120	Academic Writing & Crit Inquiry	4	PHYS 221	Physics I	4
CHEM 132	General Chemistry	3	CHEM 233	Fndns Inorganic Chemistry	3
CHEM 111	General Chemistry Lab	1	CHEM 145	Quantitative Chem Lab	1
E 101	Intro to Engr & Prob Solv	1	ECON 104	Microecon. Princip. for Engineer.	3
JEM 123	Intro to CAD for Mechat. Eng.	1	*** **	GEP Course	<u>3</u>
FYS 178	First Year Seminar	<u>3</u>			<u>18</u>
		17			

Sophomore Year (NC State)

MA 242	Calculus III	4	MA 341	Appl Differential Equations I	3
PY 208	Physics for Engrs & Sci II	3	MSE 255	Exp Methods Struct Analy Mat'l	2
PY 209	Physics for Engrs & Sci II Lab	1	MSE 260	Math Methods for Mat'l Engr	3
ST 370	Prob & Stats for Engineers	3	MSE 270	MSE Seminar	1
E 115	Intro to Computing Environ	1	CH 220	Intro to Organic Chemistry (a)	4
MSE 201	Struc & Prop of Engr Matls	<u>3</u>	CH 222	Organic Chemistry I Lab	1
		15	*** **	GEP Course	<u>3</u>
					<u>16</u>

Junior Year (NC State)

MSE 300	Struct Mat'ls at Nanoscale	3	MSE 355	Elec Magn & Opt Prop Mat'ls	3
MSE 301	Intro to Thermo of Mat'ls	3	MSE 360	Kinetic Processes in Mat'ls	3
MSE 320	Intro Defects in Solids	3	MSE 370	Microstruct Inorganic Mat'ls	3
MSE 335	Exp Methods Analy Mat'l Prop	2	MSE 380	Microstruct Organic Mat's	3
*** **	GEP Course	3	*** **	Engineering Elective	3
*** **	Technical Elective	<u>3</u>	HES **	Health & Exercise Studies Course	<u>1</u>
		17			<u>16</u>

Senior Year (NC State)

MSE 420	Mechanical Prop of Mat'ls	3	MSE 470	MSE Design Project	3
MSE 423	Intro to Materials Engr Design	1	MSE 480	Materials Forensics & Degrad	3
ENG 331	Technical Writing (b)	3	*** **	Technical Elective	3
*** **	MSE Processing Elective	3	*** **	GEP Course	3
*** **	Technical Elective	3	*** **	Ethics Elective (GEP Course)	3
*** **	GEP Course	<u>3</u>	HES **	Health & Exercise Studies Course	<u>1</u>
		16			<u>16</u>

(a) or CH 221 (3)

(b) or ENG 333 (3)