

# North Carolina State University

## Mechanical Engineering Curriculum (Effective 07-01-2021)

### 2 + 2 Program with UNC Asheville

#### FALL SEMESTER

#### SPRING SEMESTER

#### Freshman Year (UNC Asheville)

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

#### Sophomore Year (UNC Asheville)

MATH 291	Calculus III	4	MATH 394	Differential Equations	3
PHYS 222	Physics II	4	MAE 208	Engineering Dynamics	3
MSE 201	Struc & Prop of Engr Matls	3	MAE 214	Solid Mechanics	3
MAE 206	Engineering Statics	3	STAT 225	Intro to Calc-based Statistics	4
***	***	<u>3</u>	***	***	<u>3</u>
	GEP Course	17		GEP Course	16

#### Junior Year (NC State)

CSC 113	Intro Computing - MATLAB	3	MAE 302	Engr Thermodynamics II	3
E 115	Intro to Computing Environ	1	MAE 306	ME Lab II	1
MAE 200	Intro to ME Design	1	MAE 310	Heat Transfer Fundamentals	3
MAE 201	Engr Thermodynamics I	3	MAE 316	Strength of Mech Components	3
MAE 305	ME Lab I	1	GC 120	Foundations of Graphics	3
MAE 308	Fluid Mechanics	3	ECE 331	Prin of Electrical Engr	3
MAE 315	Dynamics of Machines	3	E 102	(or GEP substitute)	<u>2</u>
ENG 331	Commun for Engr and Tech	<u>3</u>			18
		18			

#### Senior Year (NC State)

MAE 405	Controls Lab	1	MAE 416	ME Senior Design	4
MAE 435	Prin of Automatic Control	3	**E	***	3
MAE 4**	ME Design Elective	3	**E	***	3
**E	***	3	HES	***	1
ISE 311	Engr Economic Analysis	3	***	***	<u>3</u>
HES	***	<u>1</u>		Ethics GEP Course	14
	Health & Exercise Studies	14			

It is recommended that accepted ME students discuss their upcoming course schedule with their NCSU ME advisor, to consider ways to reduce the course load during the junior year.