

North Carolina State University

Aerospace Engineering 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	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	***	GEP Course	3
E 101	Intro to Engr & Prob Solv	1	***	GEP Course	<u>3</u>
JEM 123	Intro to CAD for Mechat. Eng.	1			17
FYS 178	First Year Seminar	<u>3</u>			
		17			

Sophomore Year (NC State)

MA 242	Calculus III	4	MA 341	Appl Differential Equations I	3
MAE 206	Engineering Statics	3	MAE 208	Engineering Dynamics	3
MAE 250	Intro Aero Engineering	1	MAE 214	Solid Mechanics	3
MAE 251	Aero Vehicle Performance	3	MAE 252	Aerodynamics I	3
PY 208	Physics for Engrs & Sci II	3	MAE 253	Experimental Aerodynamics I	1
PY 209	Physics for Engrs & Sci II Lab	1	E 115	Intro to Computing Environ	1
CSC 113	Intro Computing - MATLAB	<u>3</u>	GC 120	Found of Graphics	3
		18	HESF ***	Fitness and Wellness	<u>1</u>
					18

Junior Year (NC State)

MAE 201	Engr Thermodynamics I	3	MAE 351	Aerodynamics II	3
MAE 361	Dynamics & Controls	3	MAE 352	Experimental Aerodynamics II	1
MAE 371	Aerospace Structures I	3	MA ***	Math Elective	3
MAE 372	Aerospace Vehicle Struc Lab	1	MAE ***	Flight/Space Elective	3
***	English Elective	3	MAE ***	Structures Elective	3
***	Ethics Elective	<u>3</u>	HES ***	Health & Exercise Studies	1
		16	E 102	(or GEP substitute)	<u>2</u>
					16

Senior Year (NC State)

MAE 405	Controls Lab	1	MAE 481	Aerospace Vehicle Design II	3
MAE 435	Prin of Automatic Control	3	***	GEP Course	3
MAE 451	Experimental Aerodynamics III	1	***	GEP Course	3
MAE 480	Aerospace Vehicle Design I	3	MAE ***	Technical Elective	3
MAE ***	Propulsion Elective	3	MAE ***	Flight/Space Elective	<u>3</u>
MAE ***	Technical Elective	<u>3</u>			15
		14			

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