

# North Carolina State University

## Nuclear 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	***	***	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 (NC State)

MA 242	Calculus III	4	MA 341	Appl Differential Equations I	3
PY 208	Physics for Engrs & Sci II	3	MAE 208	Engineering Dynamics	3
PY 209	Physics for Engrs & Sci II Lab	1	CSC 113	Intro Computing - MATLAB	3
NE 201	Introduction to Nuclear Engr	2	NE 202	Rad Sources, Intrct, Detect	4
MAE 206	Engineering Statics	3	E 102	(or GEP substitute)	<u>2</u>
E 115	Intro to Computing Environ	1			16
***	***	<u>3</u>			
	Advanced Comm Elective	17			

#### Junior Year (NC State)

ISE 311	Engr Economic Analysis	3	MAE 308	Fluid Mechanics	3
NE 301	Fundamentals of Nuclear Engr	3	NE 400	Nuclear React Energy Convers	4
MAE 201	Engr Thermodynamics I	3	NE 401	React Analysis and Design	3
MA 401	Appl Differential Equations II	3	MSE 201	Struc & Prop of Engr Matls	3
***	***	<u>3</u>	NE 403	Nuclear Reactor Lab	<u>2</u>
		15			15

#### Senior Year (NC State)

NE 402	Reactor Engineering	4	NE 405	Reactor Systems	3
NE 404	Radiation Safety and Shielding	3	NE 408	Nuclear Engr Design Project	3
NE 406	NE Senior Design Prep	1	***	***	3
NE ***	NE Elective	3	***	***	3
***	***	3	***	***	3
HES ***	Health & Exercise Studies	<u>1</u>	HES ***	Health & Exercise Studies	<u>1</u>
		15			15