

Nuclear Engineering (BS) (14NEBS)				
FRESHMAN YEAR				
Fall Semester	Credit		Spring Semester	Credit
CH 101 Chemistry, A Molecular Science ⁶	3		NE 491 Fortran or CSC 113 MatLab	3
CH 102 General Chemistry Lab ⁶	1		MA 241 Calculus II ⁶	4
E 101 Intro to Engr & Prob Solving ¹	1		PY 205 Physics for Engineers & Scientists I ⁶	3
E 115 Intro to Computing Environ	1		PY 206 Physics for Engineers & Scientists I Lab	1
ENG 101 Academic Writing & Research ¹	4		EC 205 Economics (or EC 201 or ARE 201)*	3
MA 141 Calculus I ⁶	4		E102 Engineering in the 21st Century	2
HES_*** Health & Exercise Studies Course*	1			
	15			16
SOPHOMORE YEAR				
Fall Semester	Credit		Spring Semester	Credit
MAE 206 Engineering Statics	3		MAE 208 Engineering Dynamics	3
MA 242 Calculus III	4		MA 341 Appl Differential Eq	3
NE 201 Intro to Nuclear Engr	2		NE 202 Rad. Sources Interact & Detect ¹	4
PY 208 Physics for Engineers & Scientists II	3		GEP Requirement*	3
PY 209 Physics for Engineers & Scientists II Lab	1		GEP Requirement*	3
Advanced Comm Elective ²	3			
	16			16
JUNIOR YEAR				
Fall Semester	Credit		Spring Semester	Credit
MAE 201 Engr Thermo I	3		MAE 308 Fluid Mechanics	3
MA 401 Appl Diff Equations II	3		MSE 201 Struct Prop of Engr Mat	3
NE 301 Fund of Nuclear Engr ¹	3		NE 400 Nuclear React Ener Conver	4
ISE 311 Engr Ec Analysis	3		NE 401 React Analysis & DES	3
GEP Requirement*	3		HES_*** Health & Exercise Studies Course*	1
			NE 403 Nuclear Reactor Laboratory	2
	15			16
SENIOR YEAR				
Fall Semester	Credit		Spring Semester	Credit
NE 402 Reactor Engr	4		NE 405 Reactor Systems	3
NE 404 Rad Safety & Shielding	3		NE 408 Nucl Engr Des Proj	3
NE 406 Nuclear Engr Senior Design Prep	1		ENGR Tech Elective ⁵	3
NE Elective ³	3		GEP Requirement*	3
Tech Elective ⁴	3		GEP Requirement*	3
	14			15

Minimum Credit Hours Required for Graduation*:			123	→
Major/Program requirements and footnotes:				
1. Minimum grade of C- required.				
2. Advanced Communication Elective: COM 110, COM 112, COM 146, COM 211, ENG 215, ENG 288, ENG 289, ENG 322, ENG 331, ENG 332, ENG 333, FLA 201, FLA 202, FLC 201, FLC 202, FLF 201, FLF 202, FLF 208, FLG 201, FLG 202, FLI 201, FLI 202, FLJ 201, FLJ 202, FLJ 203, FLJ 203, FLJ 204, FLJ 205, FLK 201, FLK 202, FLN 201, FLN 202, FLP 201, FLR 201, FLR 202, FLS 201, FLS 202, FLS 208, GRK 201, GRK 202, LAT 201, LAT 202, PER 201, PER 202. If any of the listed courses are taken to satisfy this requirement, must take another course for any of the GEP requirements.				
3. Nuclear Engineering Electives: NE 409, NE 412, NE 418, NE 509, NE 512, NE/PY 528.				
4. Technical Electives: CSC 302; CH 315, 331; MA 405, 427; PY 341, 411, 414, 415, 525; ST 361, 370, 371.				
5. Engineering Technical Electives: Any course from the list of approved NE electives (Footnote 3) or any College of Engineering course at the 300-level or above, except for CSC courses.				
6. Grade of C (2.0) or higher required.				
*General Education Program (GEP) requirements:				
To complete the requirements for graduation and the General Education Program, the following credit hours and co-requisites must be satisfied. University approved GEP course lists for each category can be found at http://oucc.dasa.ncsu.edu/general-education-program/ .				
Health & Exercise Studies – 2 hours to be selected from the approved GEP Health & Exercise Studies list.				
a. One fitness and wellness course (any Health & Exercise Studies 100-level course).				
b. One additional credit hour of Health & Exercise Studies activity courses above 100 level.				
HUMANITIES – 6 credits to be selected in two different disciplines from the approved GEP Humanities list.				
SOCIAL SCIENCES – 3 credits to be selected in a discipline other than economics from the approved GEP Social Sciences list. EC 205 (or EC201 or ARE 201) taken as part of the Major requirements satisfies 3 credit hours of the 6 credit hours needed to fulfill the GEP Social Sciences requirement.				
ADDITIONAL BREADTH – 3 credits to be selected from the approved GEP Humanities, Social Sciences or Visual and Performing Arts lists.				
INTERDISCIPLINARY PERSPECTIVES – 5-6 credits to be selected from the approved GEP Interdisciplinary Perspectives list.				
Co-requisites:				
U.S. Diversity and Global Knowledge co-requisites must be satisfied to complete the General Education requirements. Choose course(s) that are identified on the approved GEP course lists as meeting the U.S. Diversity and Global Knowledge co-requisites.				
Foreign Language proficiency at the FL_10* level will be required for graduation - see https://oucc.dasa.ncsu.edu/foreign-language-proficiency/ .				