

FRESHMAN YEAR
FALL SEMESTER

NE 101	Introduction to Nuclear Engineering	1
CHEM 1215 (or 131)	General Chemistry I for STEM Majors ⁽²⁾ (or Principles of Chemistry I)	3
CHEM 1215L	General Chemistry I for STEM Majors Laboratory ⁽²⁾	1
ENGL 1120	Composition II	3
MATH 1512	Calculus I ⁽²⁾	4
	GEN ED:Humanities ⁽¹⁾⁽⁸⁾	3
<u>Total Semester Hours:</u>		15

SPRING SEMESTER

PHYS 1310	Calculus Based Physics I ⁽²⁾	3
CHEM 1225 (or 132)	General Chemistry II for STEM Majors ⁽²⁾ (or Principles of Chemistry II)	3
CHEM 1225L	General Chemistry II Laboratory for STEM Majors ⁽²⁾	1
MATH 1522	Calculus II ⁽²⁾	4
	GEN ED: Arts & Design ⁽¹⁾	3
	GEN ED: Communication ⁽¹⁾	3
<u>Total Semester Hours:</u>		17

*First Year Learning Workshop

SOPHOMORE YEAR
FALL SEMESTER

NE 230	Principles of Radiation Protection	3
PHYS 1320	Calculus Based Physics II	3
MATH 2530	Calculus III	4
ECON 2110	Macroeconomic Principles	3
ENG 130L	Introduction to Engineering Computing ⁽²⁾	3
<u>Total Semester Hours:</u>		16

SPRING SEMESTER

NE 213	Laboratory Electronics for Nuclear, Chemical and Biological Engineers	3
NE 231	Principles of Nuclear Engineering	3
NE 314	Thermodynamics and Nuclear Systems	3
NE 371	Nuclear Materials Engineering	3
MATH 316	Applied Ordinary Differential Equations	3
<u>Total Semester Hours:</u>		15

*Department Orientation

JUNIOR YEAR
FALL SEMESTER⁽⁷⁾

NE 311	Introduction to Transport Phenomena	3
NE 315	Nuclear Engineering Analysis & Calculation	3
NE 323L	Radiation Detection and Measurement	4
STAT 345	Elements of Mathematical Statistics and Probability Theory	3
	GEN ED: Second Language ⁽¹⁾	3
<u>Total Semester Hours:</u>		16

SPRING SEMESTER

NE 312	Unit Operations	3
NE 313L	Introduction to Laboratory Techniques for Nuclear Engineering	4
NE 330	Nuclear Engineering Science	3
NE 410	Nuclear Reactor Theory	3
	Technical Elective ⁽⁵⁾	3
<u>Total Semester Hours:</u>		16

*Graduation Planning Workshop

SENIOR YEAR⁽³⁾⁽⁴⁾
FALL SEMESTER

NE 462	Monte Carlo Techniques for Nuclear Systems	3
NE 464	Thermal-Hydraulics of Nuclear Systems	3
NE 497L	Nuclear Engineering Computational Methods	3
	Nuclear Engineering Technical Elective ⁽⁴⁾	3
<u>Total Semester Hours:</u>		12

SPRING SEMESTER

NE 413L	Nuclear Engineering Laboratory I	3
NE 452	Senior Seminar	1
NE 498L	Nuclear Engineering Design	3
NE 470	Nuclear Fuel Cycle and Materials	3
	Nuclear Engineering Technical Elective ⁽⁴⁾	3
<u>Total Semester Hours:</u>		13

- (1) Students should consult the online UNM catalog (<http://catalog.unm.edu/>), the online LoboTrax, or an advisor to obtain a list of acceptable courses to fulfill the core curriculum requirements. These courses may be taken whenever convenient.
- (2) Admissions to the BSNE degree program requires completion of 19 hours of math, science, and engineering courses listed in the freshman year with a grade of "C" or better, and a minimum UNM cumulative GPA of a 2.3.
- (3) Students are encouraged to take the Fundamentals of Engineering (FE) Examination during their senior year. This is the first formal step toward professional registration. See Website: www.ncees.org/fe/.
- (4) The NE Technical Electives are chosen from a list of approved upper division nuclear engineering courses, and the Technical Electives are chosen from a list of approved STEM-related technical courses. See department website for complete list.
- (5) Each course counted towards graduation must be completed with a grade of C- or better. Courses used to fulfill the General Education curriculum or Prerequisite out side of the major require a grade of C or better.
- (6) Students must file a graduation application for the B.S.N.E. prior to the completion of the courses listed in the junior year fall of the NE curriculum (i.e. NE 315).
- (7) For the UNM General Education Humanities requirement, we recommend picking a course from the GEN ED website with a globe next to it, as this also satisfies the U.S. & Global Diversity and Inclusion requirement.