B.S. CURRICULUM IN NUCLEAR ENGINEERING♦

(Effective Fall 2009, Catalog 132)

FRESHMAN YEAR[1]

Fall Semester-	18 hours	Spring Semester-	18 hours
ENGL 104 Comp. & Rhetoric	(3)	CHEM 107 Chemistry for Engrs.	(4)
ENGR 111 Foundations of Engr. I	(2)	ENGR 112 Foundations in Engr. II	(2)
MATH 151 Engr. Math I[2]	(4)	MATH 152 Engr. Math II	(4)
PHYS 218 Mechanics	(4)	PHYS 208 Electricity & Optics	(4)
NUEN 101 Principles of Nucl. Engr.[1]	(1)	University Core Curriculum Elective[3]	(3)
University Core Curriculum Elective[3]	(3)	KINE 199 Required Physical Activity	(1)
KINE 198 Health & Fitness Activity	(1)		

SOPHOMORE YEAR

Fall Semester-	15 hours	Spring Semester-	15 hours
MEEN 221 Statics & Particle Dynamics	(3)	MEEN 315 Principles of Thermodynamics	(3)
NUEN 265 Mat'l Sci.Nucl.Energy Appl	(3)	CVEN 305 Mechanics of Materials	(3)
MATH 251 Engr. Math III	(3)	ECEN 215 Principles of Electrical Engr.	(3)
NUEN 201 Intro. to Nucl. Engr. I	(3)	MATH 308 Differential Equations	(3)
University Core Curriculum Elective[3]	(3)	NUEN 302 Intro. to Nucl. Engr. II	(3)

JUNIOR YEAR

Fall Semester-	15 hours	Spring Semester-	18 hours
ENGL 301 Tech Writing[5] OR		MEEN 461 Heat Transfer	(3)
COMM 203 Public Speaking[5]	(3)	INEN 302 Econ. Anal. Of Engr. Proj.	(2)
MEEN 344 Fluid Mechanics	(3)	NUEN 329 Analytical and Numerical Methods	(4)
MATH 311 Topics in Applied Math I	(3)	NUEN 303 Nuclear Detection & Isotopes	(3)
NUEN 301 Nuclear Reactor Theory	(3)	NUEN 304 Nuclear Reactor Analysis	(3)
NUEN 309 Radiological Safety	(3)	University Core Curriculum Elective[3]	(3)

SENIOR YEAR

Fall Semester-	16 hours	Spring Semester-	17 hours
NUEN 405 Nucl. Engr. Exp	(3)	ENGR 482 Ethics & Engineering[3]	(3)
NUEN 406 Nucl. Engr. Sys & Design	(3)	NUEN 410 Design of Nuclear Reactors	(4)
NUEN 430 Comp. Appl. in Nucl. Eng[6]	(3)	NUEN 481 Seminar	(1)
University Core Curriculum Elecitve[3]	(3)	University Core Curriculum Elective[3]	(3)
Technical Elective[4]	(4)	NUEN Technical Elective[4]	(3)
		Technical Elective[4]	(3)

TOTAL: 132 hours

1. NUEN 101 is required during the first semester of the freshman year.
2. Entering students will be given a placement test in mathematics. Test results will be used to select the appropriate starting course.
3. To be selected from the University Core Curriculum. Of the 18 hours shown as electives, 3 must be from Visual & Performing Arts, 3 from Social & Behavioral Sciences, 6 from U.S. History (typically HIST 105 & 106), 6 from Political Science (POLS 206 & 207), and 6 from International & Cultural Diversity. The International & Cultural Diversity hours may be met by courses satisfying the Visual & Performing Arts, Social & Behavioral Sciences, and the Political Science & History requirements if they are also on the approved list for International & Cultural Diversity courses. In addition, ENGR 482 or PHIL 482 must be taken.
4. As approved by departmental advisor.
5. ENGL 210 is an acceptable substitute.
6. Power Option Alternative. Students who intend to work in the nuclear power industry immediately upon completion of the B.S. degrees have the option of substituting the 3 hour course "Nuclear Plant Systems & Transients" for NUEN 430. If this choice is made, then the student must also select the 2 hour course "Core Modeling" as a technical elective. Since both are new courses, they are listed as NUEN 489.