

# B.S. CURRICULUM IN RADIOLOGICAL HEALTH ENGINEERING<sup>♦</sup>

(Effective Fall 2009, Catalog 132)

## FRESHMAN YEAR<sup>1</sup>

Fall Semester-	18 hours	Spring Semester-	18 hours
ENGL 104 Comp. & Rhetoric	(3)	CHEM 102 Fundamentals of Chem. II	(4)
ENGR 111 Foundations of Engr. I	(2)	ENGR 112 Foundations in Engr. II	(2)
MATH 151 Engr. Math I <sup>2</sup>	(4)	MATH 152 Engr. Math II	(4)
PHYS 218 Mechanics	(4)	PHYS 208 Electricity and Optics	(4)
NUEN 101 Principles of Nucl. Engr. <sup>1</sup>	(1)	University Core Curriculum Elective <sup>3</sup>	(3)
University Core Curriculum Elective <sup>3</sup>	(3)	KINE 199 Required Physical Activity	(1)
KINE 198 Health & Fitness Activity	(1)		

## SOPHOMORE YEAR

Fall Semester-	16 hours	Spring Semester-	16 hours
MEEN 221 Statics & Particle Dynamics	(3)	STAT 211 Principles of Statistics I	(3)
MATH 251 Engr. Math III	(3)	MEEN 315 Principles of Thermodynamics	(3)
NUEN 201 Intro. to Nuclear Engr. I	(3)	MATH 308 Differential Equations	(3)
VTPP 434 Physiology for Bioengineers I	(4)	NUEN 302 Intro. to Nuclear Engr. II	(3)
University Core Curriculum Elective <sup>3</sup>	(3)	VTPP 435 Physiology for Bioengineers II	(4)

## JUNIOR YEAR

Fall Semester-	15 hours	Spring Semester-	16 hours
ELEN 215 Prin. of Electrical Engr.	(3)	ENGL 301 Tech Writing <sup>5</sup>	
MATH 311 Topics in Applied Math I	(3)	OR	
NUEN 301 Nuclear Reactor Theory	(3)	COMM 203 Public Speaking <sup>5</sup>	(3)
NUEN 309 Radiological Safety	(3)	NUEN 329 Analytical and Numerical Methods	(4)
GEOL 410 Hydrogeology	(3)	NUEN 303 Nuclear Detection & Isotopes	(3)
		SENG 310 Industrial Hygiene Engr.	(3)
		University Core Curriculum Elective <sup>3</sup>	(3)

## SENIOR YEAR

Fall Semester-	16 hours	Spring Semester-	17 hours
CHEM 227 Organic Chemistry I	(3)	ENGR 482 Ethics and Engineering <sup>3</sup>	(3)
CHEM 237 Organic Chemistry Lab.	(1)	INEN 302 Eco. Anal. of Engr. Proj.	(2)
NUEN 405 Nuclear Engr. Experiments	(3)	CVEN 305 Mechanics of Materials	(3)
NUEN 475 Environmental Nucl. Engr.	(3)	NUEN 479 Rad. Protection Engr	(3)
Technical Elective <sup>4</sup>	(3)	NUEN 481 Seminar	(1)
University Core Curriculum Elective <sup>3</sup>	(3)	Technical Elective <sup>4</sup>	(2)
		University Core Curriculum <sup>3</sup>	(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 are 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) & 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.