

Health Physics and Radiation Science 2022-2023

Year	Course	Course	Course	Course	Course	Course
1-1	CHEM 1010U Chemistry I	COMM 1050U Technical Communications	MATH 1010U Calculus I	MATH 1850U Linear Algebra for Engineers	PHY 1010U Physics I	
1-2	BIOL 1011U Introductory Cell and Molecular Biology	CHEM 1020U Chemistry II (CHEM 1010U)	ENGR 1200U Introduction to Programming for Engineers	MATH 1020U Calculus II (MATH 1000U or MATH 1010U)	NUCL 1530U Radiation and Nuclear Technologies	PHY 1020U Physics II (PHY 1010U or PHY 1030U, MATH 1000U)
2-1	CHEM 2020U Introduction to Organic Chemistry (CHEM 1020U)	ELEE 2790U Electric Circuits (MATH 1020U, MATH 1850U, PHY 1020U)	MATH 2860U Differential Equations for Engineers (MATH 1020U Coreq: MATH 1850U or MATH 2050U)	NUCL 2500U Introduction to Nuclear Physics (MATH 1020U, PHY 1020U)	ESNS 2140U Problem Solving, Modelling and Simulation (MATH 1020U, CCSI 1040U or ENGR 1200U, ENSY 2210U or PHY1010U)	
2-2	EVNS 1000U Environmental Science	NUCL 2950U Radiation Protection (NUCL 2500U or ENGR 2500U)	SSCI 1470U Impact of Science and Technology on Society	STAT 2800 Statistics & Probability for Engineers (MATH 1020U)	MATH 2810U Advanced Engineering Mathematics (MATH 1020U) OR MATH 2070U Numerical Methods (MATH 1020U, MATH 1850U or MATH 2050U)	
3-1	NUCL 3860U Introduction to Nuclear Reactor Technology (PHY 1020U)	HLSC 1200U Human Anatomy & Physiology I	NUCL 3740U Scientific Instrumentation (ELEE 2790U, STAT 2800U)	RADI 3200U Medical Imaging (ENGR 2950U or NUCL 2950U or RADI 2100U)	RADI 4550U Radiation Detection and Measurement (ENGR 2500U or NUCL 2500U, ENGR 2950U or NUCL 2950U)	
3-2	Complementary Studies Elective	Engineering Science OR Science Elective	ENGR 3360U Engineering Economics	RADI 4220U Radiation Biophysics and Dosimetry (BIOL 1010U or BIOL 1011U, NUCL 2950U)	RADI 4440U Radioisotopes and Radiation Machines (ENGR 2950U or NUCL 2950U or RADI 2100U)	
4-1	Liberal Studies Elective	ESNS 4660U Risk Analysis Methods (STAT 2800U)	RADI 3750U Environmental Effects of Radiation (ENGR 2950U or NUCL 2950U)	RADI 4430U Industrial Applications of Radiation Techniques (ENGR 3740U or NUCL 3740U, RADI 4550U)	RADI 4995U Thesis Project I (all courses above completed)	
4-2	Liberal Studies Elective	RADI 4320U Therapeutic Applications of Radiation Techniques (ENGR 2950U or NUCL 2950U or RADI 2100U)	RADI 4999U Thesis Project II (RADI 4995U)	Senior Engineering Science OR Senior Science Elective	Senior Engineering Science OR Senior Science Elective	