

## Nuclear Engineering 2022-2023

Year	Course	Course	Course	Course	Course	Course
1-1	COMM 1050U Technical Communications	ENVS 1000U Environmental Science	MATH 1010U Calculus I	MATH 1850U Linear Algebra for Engineers	NUCL 1530U Radiation & Nuclear Technologies	PHY 1010U Physics I
1-2	CHEM 1800U Chemistry for Engineers	ENGR 1025U Engineering Design (ENGR 1015U or NUCL 1530U)	ENGR 1200U Introduction to Programming for Engineers	MATH 1020U Calculus II (MATH 1010U)	PHY 1020U Physics II (PHY 1010U)	SSCI 1470U Impact of Science and Technology on Society
2-1	ELEE 2790U Electric Circuits (MATH 1020U, MATH 1850U, PHY 1020U)	ESNS 2140U Problem Solving, Modelling & Simulation (MATH 1020U, CSCI 1040U or ENGR 1200U, ENSY 2210U or PHY 1010U)	MANE 2220U Structure & Properties of Materials (CHEM 1800U or CHEM 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)	NUCL 2860U Fluid Mechanics (MATH 1020U, PHY 1010U)
2-2	MATH 2810U Adv Engineering Mathematics (MATH 1020U) OR MATH 2070U Numerical Methods (MATH 1020U, MATH 1850U or MATH 2050U)	NUCL 2010U Thermodynamic Cycles (MATH 1020U, PHY 1010U)	NUCL 2950U Radiation Protection (NUCL 2500U or ENGR 2500U)	NUCL 3820U Nuclear Reactor Kinetics (NUCL 2500U, MATH 2860U)	STAT 2800 Statistics & Probability for Engineers (MATH 1020U)	Liberal Studies Elective
3-1	ESNS 3380U Strength of Materials (PHY 1010U, MANE 2220U)	NUCL 3740U Scientific Instrumentation (ELEE 2790U, STAT 2800U)	NUCL 3930U Heat Transfer (NUCL 2010U)	NUCL 4640U Nuclear Plant Operation (PHY 1020U or NUCL 3820U or ENGR 3820U)	RADI 3570U Environmental Effects of Radiation (NUCL 2950U or ENGR 2950U)	Complementary Studies Elective
3-2	ENGR 3360U Engineering Economics	ESNS 3750U Integrated Engineering Laboratory (ENGR 2140U or ESNS 2140U, NUCL 2860U or ESNS 2200U, ESNS 3380U or ENGR 3380U)	NUCL 4730U Reactor Control (MATH 2860U or ENGR 0103U)	NUCL 4610U Corrosion for Engineers (CHEM 1020U or CHEM 1800U)	NUCL 4780U Nuclear Reactor Design (NUCL 2500U, NUCL 2860U, NUCL 3820U, NUCL 3930U, MATH 2070U or MATH 2810U)	Liberal Studies Elective
4-1	BUSI 3700U Strategic Management for Professionals	ESNS 4660U Risk Analysis Methods (STAT 2800U)	NUCL 4625U Radioactive Waste Management Design (ENGR 3570U or RADI 3570U, ENGR 3930U or NUCL 3930U, ENGR 4610U or NUCL 4610U)	NUCL 4700U Nuclear Plant Design & Simulation (NUCL 2010U, NUCL 4640U, NUCL 4780U)	NUCL 4994U Capstone I (all courses above completed)	Engineering Science Elective
4-2	ENGR 4760U Ethics, Law and Professionalism for Engineers	NUCL 4460U Nuclear Power Systems (NUCL 2010U, ENGR 3930U)	NUCL 4525U Nuclear Plant Safety Design (ENGR 4640U or NUCL 4640U, ENGR 4660U, ENGR 4700U or NUCL 4700U)	NUCL 4810U Nuclear Fuel Cycles (NUCL 4610U or NUCL 4610U, ENGR 4780U or NUCL 4780U or NUCL 4540U)	NUCL 4998U Capstone II (NUCL 4994U)	Engineering Design Elective