OntarioTech
Energy Systems
& Nuclear Science

Bachelor of Engineering
Nuclear Engineering
2021 Start

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