Bachelor of Engineering in Nuclear Engineering - BEng (Hons) 2007 & 2008 entry

(Prerequisites in brackets)

Year	Course	Course	Course	Course	Course	Course
1-1	EDUC 1200 **History of Science and Technology** (now liberal studies)	EDUC 1050U **Technical Communications** (now COMM 1050U)	ENGR 3200 **Engineering Graphics and Design**	MATH 1010 **Calculus I**	MATH 1850 **Linear Algebra for Engineers** (Coreq: MATH 1010)	PHY 1010 **Physics I**
1-2	CHEM 1800 **Chemistry for Engineers**	ENGR 1200 **Introduction to Programming**	ENGR 3530 **Safety and Quality Management** (now NUCL 1530U)	BIOL 1840 **Biology for Engineers** OR ENVS 1000 **Environmental Science**	MATH 1020 **Calculus II** (MATH 1010 Calculus I)	PHY 1020 **Physics II** (PHY 1010 Physics I)
2-1	BUSI 2000 **Collaborative Leadership**	ENGR 2140 **Problem Solving, Modelling and Simulation** (MATH 1020 Calc II, PHY 1020 Phys II, ENGR 1200 Intro Prog) (Coreq: MATH 2860)	ENGR 2220 **Structure and Properties of Materials** (CHEM 1800 Chem for Engineers or CHEM 1020 Chemistry II)	ENGR 2500 **Introduction to Nuclear Physics** (MATH 1020 Calculus II, PHY 1020 Physics II)	ENGR 2860 **Fluid Mechanics** (PHY 1010 Physics I MATH 1020 Calculus II)	MATH 2860U **Differential Equations for Engineers** (MATH 1020 Calc II, MATH 1850 Linear)
2-2	EDUC 1470U **Impact of Science and Technology on Society** (now SSCI 1470U)	ENGR 2010 **Thermodynamic Cycles** (PHY 1010 Physics I, MATH 1020 Calculus II)	ENGR 2950 **Radiation Protection** (ENGR 2500 Intro to Nuclear Physics)	ENGR 3820 **Nuclear Reactor Kinetics** (ENGR 2500 Intro to Nuclear Physics, MATH 2860 Differential Equations)	MATH 2810 **Adv Engineering Mathematics** (MATH 1020 Calculus II) OR MATH 2070 **Numerical Methods** (MATH 1020 Calculus II, MATH 1850 Lin Algebra)	STAT 2800 **Statistics and Probability for Engineers** (MATH 1020 Calculus II)
3-1	ENGR 2790 **Electric Circuits** (PHY 1020 Physics II, MATH 1020 Calculus II)	ENGR 3280 **Fundamentals of Computer Aided Design Tools** (ENGR 3200 Eng Graphics & Design, MATH 1850 Linear Algebra)	ENGR 3570 **Environmental Effects of Radiation** (ENGR 2950 Radiation Protection or RADI 2100 & RADI 2110 Radiological & Health Physics/Lab)	ENGR 3930 **Heat Transfer** (ENGR 2010 Thermodynamic Cycles, or ENGR 2320 Thermodynamics, or ENGR 2640 Thermodynamics & Heat Transfer)	ENGR 4640 **Nuclear Plant Operation** (PHY 1020 Physics II)	**Liberal Studies Elective**
3-2	**ENGR 3360 Engineering Economics** (OR BUSI 1700 if you are mgmt see mgmt map for addition)	ENGR 3740 **Scientific Instrumentation** (ENGR 2790 Electric Circuits, STAT 2800 Statistics and Probability for Engineers)	ENGR 3380 **Strength of Materials** (ENGR 2220 Structure & Properties of Materials, PHY 1010 Physics I)	ENGR 4610 **Corrosion for Engineers** (CHEM 1800 Chemistry for Engineers or CHEM 1020 Chemistry II)	ENGR 4730 **Reactor Control** (MATH 2860 Differential Equations) (Coreq: ENGR 3740)	ENGR 4780 **Nuclear Reactor Design** (ENGR 2500, ENGR 2860, ENGR 3820, ENGR 3930, MATH 2070 or 2810)
4-1	BUSI 3700 **Strategic Management for Professionals**	ENGR 4620 **Radioactive Waste Management Design** (ENGR 3570 Enviro Effects of Radiation, ENGR 3930 Heat Transfer, ENGR 4610 Corrosion for Engineers)	ENGR 4660 **Risk Analysis Methods** (STAT 2800 Statistics and Probability for Engineers)	ENGR 4700 **Nuclear Plant Design and Simulation** (ENGR 2010 Thermodynamic Cycles, ENGR 4780 NRD, ENGR 4640 NPO)	ENGR 4994 **Thesis Design Project I** (See Advisor)	**Engineering Science Elective**
4-2	ENGR 4520 **Nuclear Plant Safety Design** (ENGR 4640 NPO, ENGR 4660 Risk Analysis Methods, ENGR 4700 Nuclear Plant Design & Simulation)	ENGR 4760 **Ethics, Law and Professionalism for Engineers**	ENGR 4810 **Nuclear Fuel Cycles** (ENGR 4610 Corrosion for Engineers, ENGR 4780 Nuclear Reactor Design)	ENGR 4998 **Thesis Design Project II** (ENGR 4994, See Advisor)	**Engineering Design Elective**	**Engineering Science Elective**