

BEng (Hons) in Nuclear Engineering - 2013 Entry
(pre/co-req in brackets)

Year	Course	Course	Course	Course	Course	Course
1-1	COMM 1050 Technical Communications	ENGR 3200 Engineering Graphics and Design	MATH 1010 Calculus I	MATH 1850 Linear Algebra for Engineers (Coreq: MATH 1010)	PHY 1010 Physics I	Liberal Studies Elective
1-2	CHEM 1800 Chemistry for Engineers	ENGR 1200 Introduction to Programming	ENVS 1000 Environmental Science	MATH 1020 Calculus II (MATH 1010)	NUCL 1530 Radiation and Nuclear Technologies	PHY 1020 Physics II (PHY 1010)
2-1	ENGR 2140 Problem Solving, Modelling and Simulation (MATH 1020, PHY 1020, ENGR 1200) (Coreq: MATH 2860)	ENGR 2220 Structure and Properties of Materials (CHEM 1020 or CHEM 1800)	ENGR 2500 Introduction to Nuclear Physics (MATH 1020, PHY 1020)	ENGR 2790 Electric Circuits (MATH 1020, PHY 1020)	ENGR 2860 Fluid Mechanics (MATH 1020, PHY 1020)	MATH 2860 Differential Equations for Engineers (MATH 1020, MATH 1850)
2-2	ENGR 2010 Thermodynamic Cycles (MATH 1020, PHY 1020)	ENGR 2950 Radiation Protection (ENGR 2500)	ENGR 3820 Nuclear Reactor Kinetics (ENGR 2500, MATH 2860)	MATH 2810 Adv Engineering Mathematics (MATH 1020 Calculus II) <u>OR</u> MATH 2070 Numerical Methods (MATH 1020, MATH 1850)	SSCI 1470 Impact of Science and Technology on Society	STAT 2800 Statistics and Probability for Engineers (MATH 1020)
3-1	ENGR 3570 Environmental Effects of Radiation (ENGR 2950)	ENGR 3740 Scientific Instrumentation (ENGR 2790, STAT 2800)	ENGR 3750 Integrated Engineering Laboratory (ENGR 2140, ENGR 2860, ENGR 2220)	ENGR 3930 Heat Transfer (ENGR 2010 or ENGR 2320 or ENGR 2640)	ENGR 4640 Nuclear Plant Operation (PHY 1020)	Complementary Studies Elective (BUSI or Liberal)
3-2	ENGR 3360 Engineering Economics (OR BUSI 1700 if you are mgmt see mgmt map for addition)	ENGR 3380 Strength of Materials (PHY 1010, ENGR 2220)	ENGR 4610 Corrosion for Engineers (CHEM 1020 or CHEM 1800)	ENGR 4730 Reactor Control (MATH 2860)	ENGR 4780 Nuclear Reactor Design (ENGR 2500, ENGR 2860, ENGR 3820, ENGR 3930, MATH 2070 or 2810)	Liberal Studies Elective
4-1	BUSI 3700 Strategic Management for Professionals	ENGR 4620 Radioactive Waste Management Design (ENGR 3570, ENGR 3930, ENGR 4610)	ENGR 4660 Risk Analysis Methods (STAT 2800)	ENGR 4700 Nuclear Plant Design and Simulation (ENGR 2010, ENGR 4640, ENGR 4780)	ENGR 4994 Thesis Design Project I (See Advisor)	Engineering Science Elective
4-2	ENGR 4520 Nuclear Plant Safety Design (ENGR 4640, ENGR 4660, ENGR 4700)	ENGR 4760 Ethics, Law and Professionalism for Engineers	ENGR 4810 Nuclear Fuel Cycles (ENGR 4610, ENGR 4780)	ENGR 4998 Thesis Design Project II (ENGR 4994, See Advisor)	Engineering Design Elective	Engineering Science Elective