BEng (Hons) in Nuclear Engineering - 2011 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 or **BIOL 1840U** Biology for Engineers	**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) OR 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; see note below)	**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**

Formerly ENGR 3280: Fundamentals of Computer Aided Design Tools

*Students in an Engineering and Management program take BUSI 1700U Introduction to Entrepreneurship in place of ENGR 3360 Engineering Economics