

BEng (Hons) in Energy Systems Engineering - 2012 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	
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 1800 or CHEM 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)	Complementary Studies Elective (BUSI or Liberal)
2-2	ENGR 2010 Thermodynamic Cycles (MATH 1020, PHY 1020)	ENGR 2360 Electric Power Systems (ENGR 2790)	ENGR 3380 Strength of Materials (ENGR 2220, PHY 1010)	MATH 2810 Adv Engineering Mathematics (MATH 1020) 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 3260U Intro to Energy Systems (ENGR 2010, ENVS 1000)	ENGR 3350U Control Systems (ENGR 2790, MATH 2860)	ENGR 3750 Integrated Engineering Laboratory (ENGR 2140, ENGR 2860, ENGR 2220)	ENGR 3930 Heat Transfer (ENGR 2010 or ENGR 2320 or ENGR 2640)	Liberal Studies Elective	
3-2	ENGR 2330 Mechanical Equipment & Systems (ENGR 2860)	ENGR 3360 Engineering Economics (OR BUSI 1700 if you are mgmt; see mgmt map for additional information)	ENGR 3730 Solar Energy Technologies (ENGR 3260)	ENGR 3830 Wind Energy Systems (ENGR 2010)	ENGR 3840 Fuel Cell Design (ENGR 2010)	Engineering Science Elective
4-1	BUSI 3700 Strategic Management for Professionals	ENGR 4410 Fossil Fuel Energy Conversion (ENGR 3260 Intro. Energy Systems)	ENGR 4470 Hydrogen Power Systems (ENGR 3840)	ENGR 4660 Risk Analysis Methods (STAT 2800)	ENGR 4994 Thesis Design Project I (See Advisor)	Complementary Studies Elective (BUSI or Liberal)
4-2	ENGR 4460 Nuclear Power Systems (PHY 1020)	ENGR 4480 Emerging Energy Systems (ENGR 3260)	ENGR 4530 Hydroelectric Power Systems (ENGR 2360, ENGR 3260)	ENGR 4760 Ethics, Law and Professionalism for Engineers	ENGR 4998 Thesis Design Project II (ENGR 4994, See Advisor)	