

Module Title:	Mathematics 1 – Semester 1
Academic year:	2009 – 2010
Credit Value:	3 – Mandatory
Pre- requisites:	None
Assessment:	70% Final Exam, 30% CA
Aims	This subject aims to revise and consolidate a number of key numeracy and algebra skills, including the efficient use of a calculator. To support other engineering subjects in year 1 by covering unit conversion, linear laws, the study of right angled triangles and complex numbers. This subject also supports study using Computer Aided Learning.
Module Content	<ul style="list-style-type: none"> • Algebra; • Further Algebra; • Trigonometry; • Coordinate geometry; • Complex numbers.
Intended Learning Outcomes:	<p>On successful completion of this module, students will be able to:</p> <ol style="list-style-type: none"> 1. Manipulate and solve simple algebraic expressions and equations; 2. Manipulate and solve some special types of algebraic and trigonometric expressions / equations; 3. Apply the basic techniques of trigonometry to solve problems in Engineering; 4. Find the equation of a straight line through data. Extrapolate and interpolate. Find the centre and radius of a circle. Convert from Cartesian to polar form in 2D; 5. Perform algebra using complex numbers.