

Module code	SM-2401		
Module Title	Geometry		
Degree/Diploma	Undergraduate GenNEXT Bachelor degree		
Type of Module	Breadth		
Modular Credits	2	Total student Workload	5 hours/week
		Contact hours	2 hours/week
Prerequisite	None		
Anti-requisite	None		
Aims			
The module is designed to introduce students who are not majoring in mathematics to the methods and results of Euclidean geometry and their application to a rich variety of plane figures and 3-dimensional solids.			
Learning Outcomes			
<i>On successful completion of this module, a student will be expected to be able to:</i>			
Lower order :	30%	- describe the important properties of triangles, circles, polygons, parallelograms and other special quadrilaterals	
Middle order :	60%	- calculate lengths, angles, areas and volumes of various simple geometrical objects; construct a range of simple plane figures using only straight edge and compass; calculate the lengths, angles and areas in elliptic triangles, circles and lunes	
Higher order:	10%	- set up, analyse and solve a variety of problems in plane and solid geometry - work independently	
Module Contents			
<ul style="list-style-type: none"> - Elementary Euclidean geometry: line segments, rays, angles and triangles; circles, tangents, chords, arcs, secants, sectors and segments; regular polygons; parallelograms and other special quadrilaterals; similarity and congruence; points of concurrency. - Euclid's postulates; constructions with straight edge and compass; the regular pentagon, the golden mean and the golden rectangle. - 3-dimensional solids: spheres, cylinders, prisms, cones, pyramids and Platonic polyhedra. - Spherical geometry: elliptic axioms; area of triangles and lunes; circumference and area of circles. 			
Assessment	Formative assessment	Tutorial and feedback.	
	Summative assessment	Examination: 60% Coursework: 40% - 2 class tests (40%)	