

NIRMA UNIVERSITY
FOUNDATION PROGRAMME
Bachelor of Design, Department of Design
Year I, Semester II

L	T	P	C
		4.5	3

Course Code	DSK122
Course Title	Geometric Construction -3D

Course Learning Outcomes (CLO):

The course is focused on understanding the construction of 3 dimensional Polyhedrons with precision and skill

The course aims to make the learner understand mathematical properties of 3 dimensional forms, their planes, angles, indices, axis and their current mathematical absolutes geometrically through the study of relationships of constituent parts

The course will also inculcate in the student the ability to analyze forms and their internal structures.

Syllabus:

Teaching hours:67.5

Constructions of Polyhedrons:

Introduction to the construction of simple polyhedrons- tetrahedron, cube, octahedron, Dodecahedron, Isosahedraon in paper and as frame structures

Tessalating Polyhedrons:

Introduction to construction of tessalating three dimensional polyhedrons like space lattices

Dissecting Polyhedrons:

Sections of Polyhedrons will be constructed to understand the interrelationships between all the regular polyhedrons

Crafting Innovative Tessalating 3 Dimensional Forms

Surface Planes of Polyhedrons will be evolved as distinct forms to tessellate with adjoining planes in Thermocol/PoP/ Clay etc.

The exercise can be then applied to space filling 3 dimensional, tessellating structures

Suggested Readings:

w.e.f. Academic year _2017 and onwards

Key: L= Lecture, T= Tutorial, P= Practical, C= Credit