

NIRMA UNIVERSITY
INDUSTRIAL DESIGN PROGRAMME
Bachelor of Design, Department of Design
Year IV, Semester VII

L	T	P	C
		4.5	3

Course Code	IDSK 411
Course Title	Advanced 3D Modelling

Course Learning Outcomes (CLO):

At the end of the course the students will:

1. Understand parametric modelling methods using the platform of Solidworks
2. Understand and demonstrate design for manufacturing considerations
3. Develop a competence to do exploded views of assemblies

Syllabus:

Total Teaching hours: 67.5

Unit 1: Basic modelling techniques

Teaching hours: 30

- 1.1 Introduction of Solidworks Software and its basic tools and commands
- 1.2 Understand the 2D Orthography to 3D model and construction of 3D digital models
- 1.3 Explore tools and commands to understand the geometric of 3D and also explore the editing tools to make 3D models

Unit 2: Motion Modelling:

Teaching hours: 37.5

- 3.1 Understand the basic tools of Assembly
- 3.2 Understand the relations between different parts and its calibration
- 3.3 Introduction of Frames and Animation
- 3.4 Generation of product assembly visualisations

Suggested Readings:

1. *Engineering Drawing*, Bhatt, N. D., Charotar Publishing House, Anand, (2003)
2. *Solidworks 2018: A Power Guide for Beginners and Intermediate Users.*, CADartifex, Createspace Independent Pub; 5 edition (1 February 2018)

w.e.f. Academic year _2020 and onwards

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