NIRMA UNIVERSITY
COMMUNICATION DESIGN PROGRAM
Bachelor of Design, Department of Design
Year IV, Semester VII

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Course Code	**CDSK 411**
Course Title	**Introduction to Materials and 3D Modelling**

Course Learning Outcomes (CLO):

At the end of the course the students will:

1. Create animation and walkthroughs in space
2. Explore and experiment with different techniques using 3D modelling
3. Understand materials and processes that are involved in manufacturing of objects

Syllabus: **Teaching hours: 135**

Unit 1: Introduction to Materials **Teaching hours: 50**

1.1 Properties, detailing and use of plastics.
1.2 Properties, detailing and use of rubber, ceramics and glass.
1.3 Properties of natural materials like wood, bamboo, cane, leather, cloth, jute and paper and their use at craft and industry.

Unit 2: Introduction to 3D Modelling **Teaching hours: 85**

2.1 Modelling and Prototyping Techniques with the materials including timber, plaster, plastics, and metals.
2.2 Introduction to 3D CAD / 3Ds Max / Rhinoceros, etc. using state of art software for creating animation and walkthroughs. The focus is on creating advanced 3D models both for space creation, and advanced visualization. Introduction to contemporary methods from sketch to prototypes and production.
2.3 Presentation and Layouts

Suggested Readings:

1. *Lefteri, Chris, Making it: Manufacturing Techniques for Product Design, Laurence King., London, 2007*
2. *Mills, Criss B., Designing with Models: A Studio Guide to Making and Using Architectural Design Models, John Wiley and Sons, New Jersey 2005*
3. *Garratt J.: Design and Technology, Cambridge University Press, UK, 20004*
4. *Thompson R.: Manufacturing processes for design professionals, Thames & Hudson, London 2007*