NIRMA UNIVERSITY

Institute:	**INSTITUTE OF DESIGN**
Name of Programme:	**BACHELOR OF DESIGN**
Course Code:	3DD102MC26
Course Title:	Colour, Materials, Finish and Graphics
Course Type:	■ **Core/** ☐ Value Added Course/ ☐ Departmental Elective/ Institute Elective/ University Elective/Open Elective Any other
Year of introduction:	**Academic Year 2026-27**

L	**T**	**Practical component**				**C**
		LPW	**PW**	**W**	**S**	
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Course Learning Outcomes (CLO):

At the end of the course, the student will be able to:

1. Describe core principles of Colour, materials, finishes, and product graphics relevant to physical product design. **BL2**
2. Analyse the influence of CMFG decisions on user perception, ergonomics, usability, and product meaning. **BL4**
3. Evaluate CMFG strategies in existing products considering functional, manufacturing, environmental, and branding perspectives. **BL5**
4. Apply CMFG knowledge to develop coherent and context-appropriate solutions for physical products. **BL6**

Content: **Total Teaching hours: 120 Hrs**

Units	Content	Teaching hours
Unit 1	**Colour in Physical Products** • Colour systems and standards relevant to physical products • Emotional, cultural, and contextual meaning of colour • Colour for usability, orientation, safety, and differentiation • Accessibility and contrast considerations in product graphics • Documentation and analysis of colour usage in a selected physical product category, focusing on perception, usability, safety cues, and brand intent	**15 Hrs**
Unit 2	**Materials and Material Experience:** • Material families used in product design • Material properties and product performance	**15 Hrs**

	• Sensory and experiential aspects of materials • Sustainability and lifecycle considerations • Comparative exploration of materials for a chosen product function documenting experience, perception, and suitability	
Unit 3	**Finishes and Surface Treatment:** • Role of surface finish in product use and perception • Types of finishes and surface treatments • Manufacturing influence on surface outcomes • Durability, wear, and maintenance • Ergonomic and safety considerations • Finish mapping of an existing product based on user contact and wear	**21 Hrs**
Unit 4	**Graphics in physical products** • Typography, symbols, and information hierarchy • Instructions, warnings, and markings • Brand identity through product graphics • Practical exercise: Evaluation of product graphics in a physical product focusing on clarity, hierarchy, and CMF integration	**21 Hrs**
Unit 5	**Applied CMFG Design Project** • Product selection and context definition • User and usage analysis • Integrated colour, material, finish, and graphic strategy • Iteration and justification of CMFG decisions • Final CMFG documentation and presentation • Development and presentation of a complete CMFG strategy for a selected physical product	**48 Hrs**

Self-Study	
Suggested Readings/ References	**Books** 1. Ashby, M. F., & Johnson, K. (2014), *Materials and Design: The Art and Science of Material Selection in Product Design*. Butterworth-Heinemann, UK. 2. Karana, E., Pedgley, O., & Rognoli, V. (2015), *Materials Experience: Fundamentals of Materials and Design*. Butterworth-Heinemann, UK. 3. Albers, J. (2013), *Interaction of Color*. Yale University Press, USA. 4. Norman, D. A. (2013), *The Design of Everyday Things*. Basic Books, USA. 5. Martin, C. (2005), *The Surface Texture Bible: More Than 800 Color and Texture Samples for Every Surface*. Harry N. Abrams, USA. 6. White, A. W. (2011), *The Elements of Graphic Design*. Allworth Press, USA.