



Gyanmanjari
Innovative University

Syllabus
Gyanmanjari Institute of Design
Semester-I(Diploma Interior Design)

Subject: Design Fundamentals - DET2ID11202
Type of Course: Basic Science Courses
Prerequisite: No prior design education is required. Interest in creativity, observation, visual thinking, and design exploration is desirable.

Rationale: As a Basic Science course, this module provides a foundational understanding of the physics of light, geometric structures, and the cognitive psychology of visual perception. It bridges empirical scientific principles with human-centric design. Students analyze the mathematical proportions of spatial arrangements, the optical properties of material culture, and the behavioral impacts of structural forms. This scientific framework empowers students to apply systematic observation, hypothesis-driven ideation, and cognitive analysis to create highly functional, aesthetically refined solutions.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks		Total Marks
CI	T	P	C	SEE	CCE	
1	1	4	4	100	50	150

Legends: CI - Classroom Instructions; T - Tutorial; P - Practical; C - Credit; SEE - Semester End Evaluation; CCE - Continuous and Comprehensive Evaluation



Course Content:

Sr. No.	Course Content	Hrs.	% Weightage
1	Introduction To Design <u>Theory:</u> Meaning and Importance of Design Introduction to design as a creative, innovative and problem-solving process. Understanding the purpose and significance of design in everyday life and its role in improving functionality, aesthetics and user experience. Elements of Design Study of line, shape, form, texture, colour and space. Understanding the characteristics, visual impact and interaction of design elements in creating effective compositions. Principles of Design Introduction to balance, rhythm, emphasis, harmony, proportion, contrast, unity and movement. Understanding how design principles organize visual elements and support effective visual communication. Design Observation and Visual Awareness Development of observation skills through the study of natural forms, man-made objects, products and visual environments. Understanding visual relationships, patterns, structures and compositions. Design in Everyday Life Exploration of design applications in fashion, interiors, products, packaging, transportation and communication systems, with emphasis on functionality, usability, comfort and visual appeal. <u>Practical:</u> Design Elements Observation and Composition Study: Prepare a Design Elements Observation Journal documenting line, shape, form, texture, colour and space from everyday surroundings through sketches, photographs and written observations. Develop related composition exercises using selected design elements. Design Principles and Visual Composition Study: Develop composition studies demonstrating balance, contrast, emphasis, rhythm, harmony, unity, proportion and movement using basic design elements. Visual Analysis and Awareness Study: Conduct a visual analysis of selected everyday objects and compare natural and man-made	18	20 %



forms. Develop a Visual Awareness Board using sketches, photographs, collected images and visual references.

4. **Mini Design Investigation Project:** Select an everyday object and analyse its function, form, design elements, design principles, usability, material and visual appeal. Present the findings through sketches, photographs, visual references and written observations.

Evaluation Method:

Sr. No.	Evaluation Methods	SEE	CCE
1	Design Elements & Principles Analysis and Application Study: Students will analyse selected design examples and identify the use of design elements and principles. They will demonstrate selected principles through practical composition exercises supported by sketches, visual references and observations.	20	
2	Design Observation Journal and Composition Exercises: Students will document visual observations, design element studies, composition exercises and visual analysis activities. The completed work shall demonstrate observation, experimentation, creativity and visual organization.		10
Total		20	10

Examination Style:

Design Elements & Principles Analysis and Application Study (20 Marks)

Students will select a design example from fashion, product, graphic, interior or environmental design and conduct an analysis of the design elements and principles used. Students shall identify the relevant elements and principles and demonstrate selected principles through a practical composition exercise. The work should be supported with sketches, visual references, photographs and brief written observations demonstrating understanding and application of design principles.

Design Observation and Composition Portfolio (10 Marks)

	Students shall maintain a design observation journal and prepare composition exercises demonstrating the application of design elements and principles. The work should include visual observations, sketches, composition studies and analysis of everyday design examples. Evaluation will be based on observation skills, creativity, experimentation, visual organization, documentation quality and presentation. The final work shall be submitted through the GMIU Portal.		
2	Optics & Color Psychology <u>Theory:</u> Introduction to Color Theory Introduction to colour as a fundamental element of design and its importance in visual communication, aesthetics, perception and emotional expression. Color Wheel and Color Schemes Study of the colour wheel and colour relationships. Introduction to monochromatic, analogous, complementary, split-complementary, triadic and tetradic colour schemes and their applications. Primary, Secondary and Tertiary Colors Understanding colour classification and colour mixing and their role in creating harmonious visual compositions. Warm and Cool Colors Understanding warm and cool colour families and their visual and emotional characteristics. Psychological Effects of Colors Study of the influence of colour on emotions, behaviour and perception and its application in products, interiors, fashion, branding and visual communication. <u>Practical:</u> Color Wheel and Color Classification Study: Prepare a colour wheel showing primary, secondary and tertiary colours and explore colour relationships through practical colour-mixing exercises. Color Scheme and Harmony Study: Develop monochromatic, analogous, complementary, split-complementary, triadic and selected warm and cool colour compositions. Prepare a Colour Harmony Chart. Color Psychology and Visual Analysis Study: Analyse colour usage in selected fashion, interior, product, branding or advertising examples and document the visual and psychological effects of selected colours.	18	20 %



8. **Color Application and Mini Color Study:** Develop colour combinations for a selected design context and apply them to a simple design composition. Compare different colour combinations and explain their visual and psychological impact.

Evaluation Method:

Sr. No.	Evaluation Methods	SEE	CCE
1	Color Theory & Color Application Study: Students will analyse colour relationships, colour schemes and psychological effects of colours and demonstrate their understanding through structured practical colour applications and visual analysis.	20	
2	Color Wheel, Color Harmony and Color Psychology Portfolio: Students will prepare colour wheel, colour scheme compositions, harmony charts, colour psychology studies and colour application exercises.		10
Total		20	10

Examination Style:

Color Theory & Color Application Study (20 Marks)

Students will complete a structured colour application task based on colour relationships, colour schemes and psychological effects of colours. The study shall demonstrate understanding and practical application of primary, secondary and tertiary colours, warm and cool colours and selected colour schemes. Students must support the work with colour studies, visual references and brief written observations explaining the visual and psychological impact of the selected colour combinations.

Color Wheel, Color Harmony and Color Psychology Portfolio (10 Marks)

Students shall prepare a colour wheel, colour harmony charts, colour scheme studies and colour psychology documentation based on practical colour exploration exercises. The work should demonstrate understanding of colour relationships, colour combinations, emotional responses and design applications. Evaluation will be based on colour accuracy, creativity, practical application, documentation quality and visual presentation. The final work shall be submitted through the GMIU Portal.



3	Spatial Geometry & Structural Equilibrium <u>Theory Topics:</u> Visual Composition Techniques Introduction to the arrangement of design elements to create meaningful, balanced and aesthetically effective compositions. Symmetry and Asymmetry Study of symmetrical and asymmetrical compositions and their role in visual organization, stability, movement and visual interest. Focal Point and Emphasis Understanding visual hierarchy and methods of directing attention through contrast, scale, colour, placement and proportion. Movement and Rhythm Understanding repetition, progression, direction and visual flow in creating dynamic and engaging compositions. Introduction to Design Layouts Study of basic layout structures used in posters, presentations, magazines, fashion boards and visual communication materials. Understanding alignment, spacing, grids, proportion and organization. <u>Practical:</u> 9. Symmetry, Asymmetry and Balance Study: Prepare symmetrical and asymmetrical composition exercises using geometric and organic shapes and demonstrate dynamic balance. 10. Visual Hierarchy and Focal Point Study: Arrange visual elements according to their level of importance and develop focal point compositions using contrast, scale, colour and placement. 11. Rhythm, Repetition and Grid Composition Study: Create rhythm and repetition compositions and develop grid-based layouts using alignment, spacing and proportion principles. 12. Layout Development and Comparative Study: Prepare a poster, magazine, fashion mood board or similar visual layout. Develop alternative layout variations for the same visual content and compare their effectiveness. Compile selected work into a Composition Portfolio. <u>Evaluation Method:</u> <table border="1"> <thead> <tr> <th>Sr. No.</th><th>Evaluation Methods</th><th>SEE</th><th>CCE</th></tr> </thead> <tbody> <tr> <td>1</td><td>Composition & Layout Application Study: Students will analyse and develop</td><td>20</td><td></td></tr> </tbody> </table>	Sr. No.	Evaluation Methods	SEE	CCE	1	Composition & Layout Application Study: Students will analyse and develop	20		18	20%
Sr. No.	Evaluation Methods	SEE	CCE								
1	Composition & Layout Application Study: Students will analyse and develop	20									



		visual compositions or layouts using balance, symmetry, asymmetry, hierarchy, focal point, rhythm, alignment, spacing and proportion.				
	2	Composition Portfolio and Layout Development Exercises: Students will prepare composition studies, visual hierarchy exercises, focal point studies, rhythm and repetition studies and layout explorations.		10		
	Total		20	10		
	<u>Examination Style:</u> Composition, Layout & Visual Equilibrium Application Study (20 Marks) Students will prepare a practical composition or layout based on specified principles such as balance, symmetry, asymmetry, visual hierarchy, focal point, rhythm, alignment, spacing and proportion. Students shall demonstrate the ability to organize visual elements effectively and create a clear visual composition. The work may be presented through sketches, layout studies, photographs, visual references and brief written explanations. Composition and Layout Portfolio (10 Marks) Students shall prepare a portfolio consisting of composition exercises, hierarchy studies, focal point explorations, rhythm and repetition studies and layout development activities completed during the module. The work should demonstrate understanding of visual organization, composition techniques and layout planning. Evaluation will be based on creativity, composition quality, practical application, visual communication, documentation quality and presentation.					
4	Creative Exploration <u>Theory:</u> Idea Generation and Brainstorming Introduction to idea generation, brainstorming, mind mapping and creative thinking techniques used for developing multiple design possibilities. Mood Board Preparation Understanding mood boards as visual tools for inspiration, concept				18	20%

development and communication of themes, emotions, colours, textures and visual directions.

Basic Sketching and Visualization

Understanding freehand sketching, concept drawing and visualization as tools for recording observations, generating ideas and communicating design concepts.

Design Observation Exercises

Understanding how observation of natural forms, objects, products, architecture and human activities contributes to creativity and inspiration.

Creativity in Design Process

Understanding the relationship between imagination, experimentation, originality, flexibility and problem-solving in design development.

Practical:

13. **Brainstorming and Idea Generation Study:** Conduct brainstorming, mind mapping and thumbnail exploration on a selected design theme to generate multiple creative ideas.
14. **Mood Board and Concept Board Development:** Prepare a Mood Board and Concept Board using images, colours, textures, materials and visual references to establish the visual direction of a selected concept.
15. **Observation, Sketching and Transformation Study:** Maintain a sketchbook containing observational sketches, concept drawings, nature-inspired studies and object observation and transformation exercises.
16. **Creative Concept Development Project:** Develop multiple alternative concepts from a selected theme and refine one concept through brainstorming, observation, sketching, mood board development, concept development and final visual presentation. Obtain peer or faculty feedback and refine the concept.

Evaluation Method:

Sr. No.	Evaluation Methods	SEE	CCE
1	Creative Concept Development Study: Students will develop and document a creative design concept through brainstorming, observation, sketching, visualization and concept development techniques. The study shall demonstrate originality, creative thinking, experimentation and effective visual communication.	20	



2	Mood Board, Sketchbook and Concept Development Portfolio: Students will prepare mood boards, concept boards, sketchbook exercises, observational studies and creative exploration activities demonstrating their design process and concept development.	10
	Total	20 10

Examination Style:

Creative Concept Development Study (20 Marks)

Students will select a design theme and develop a creative concept through brainstorming, observation, research, sketching and visualization techniques. The study should demonstrate idea generation, originality, concept development and creative exploration. Students must support their work with sketches, mood boards, concept boards, visual references and brief written explanations showing the progression from inspiration to the developed concept.

Mood Board, Sketchbook and Concept Development Portfolio (10 Marks)

Students shall prepare a mood board, sketchbook and creative exploration documentation representing their design process throughout the module. The work should include visual inspirations, observational studies, concept sketches, alternative ideas and development stages. Evaluation will be based on creativity, originality, experimentation, documentation quality, visual presentation and timely submission through the GMIU Portal.

5	Application Of Design <u>Theory Topics:</u> Design Applications Introduction to the application of design principles in products, communication systems, packaging, public spaces and everyday environments. Design in Everyday Life Exploration of design applications in products, communication systems, packaging, public spaces and digital environments, with emphasis on functionality, usability and visual appeal. Creative Problem-Solving Introduction to design as a problem-solving process. Understanding	18	20 %
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problem identification, observation, research, analysis and development of appropriate solutions.

Design Thinking Approach
Introduction to empathy, problem definition, ideation, prototyping and testing as stages of a human-centered design process.

Simple Design Project Development
Understanding idea generation, concept development, visualization, refinement and presentation of a simple design project.

Practical:

17. **Design Application Analysis Study:** Conduct selected Fashion Design, Interior Design or Everyday Product Analysis Studies to identify the application of design elements, principles, functionality, aesthetics and user-centered features.

18. **Design Problem Identification and User Observation:** Identify a design-related challenge from a real-life situation. Conduct observation of users, needs, environment and existing conditions and develop a clear problem statement.

19. **Concept Generation and Design Development:** Generate alternative solutions through brainstorming and concept development. Prepare concept sketches, visual development sheets and supporting research.

20. **Mini Design Project and Prototype Development:** Develop a simple prototype, model, visual mock-up or design representation appropriate to the selected problem. Obtain feedback, refine the solution and prepare a final design presentation showing the complete design process.

Evaluation Method:

Sr. No.	Evaluation Methods	SEE	CCE
1	Design Application & Problem-Solving Study: Students will identify a simple design problem and develop an appropriate design solution by applying design principles, creative thinking and basic design thinking methods. The study shall demonstrate understanding of functionality, aesthetics, user needs, observation and problem-solving.	20	
2	Mini Design Project and Portfolio Documentation: Students will prepare a mini design project including problem		10

	identification, observation, concept development, visual exploration, design development, refinement and final presentation.				
	Total	20	10		
<u>Examination Style:</u> Design Application & Problem-Solving Study (20 Marks) Students will identify a simple design problem related to fashion, interiors, products or everyday life and develop an appropriate design solution through observation, research, creative exploration and basic design thinking. The study should demonstrate the application of design elements, principles, creative thinking and problem-solving methods. Students must support their work with sketches, problem identification, concept development sheets, visual references and brief written explanations showing the progression from problem identification to proposed design solution. Mini Design Project and Portfolio Documentation (10 Marks) Students shall prepare a mini design project portfolio documenting the complete design process including problem identification, observation, research, concept generation, visual exploration, design development, refinement and final presentation. The work should demonstrate application of design principles and an understanding of user needs and practical design requirements. Evaluation will be based on creativity, application of design principles, problem-solving ability, process development, documentation quality and presentation skills.					

Suggested Specification table with Marks (Theory): 100

Distribution of Theory Marks (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage %	10%	20%	25%	20%	10%	15%



Course Outcome:

After learning the course, the students should be able to:	
CO1	Understand the geometric elements, physical principles of form, and their cognitive role in visual communication.
CO2	Apply the physics of light, optical relationships, and color psychology to structural and spatial design solutions.
CO3	Analyze structural compositions and grid systems utilizing mathematical principles of equilibrium, hierarchy, and spatial geometry.
CO4	Develop creative concepts through brainstorming, visualization and design exploration techniques.
CO5	Create interdisciplinary design solutions by applying foundational principles to spatial, wearable, and everyday human-centric problems.

Instructional Method:

The course delivery method will depend upon the requirement of content and the needs of students.

A minimum of 20–30% of the course content shall be suggested to deliver through Flipped Learning, where students study digital learning resources before the classroom session. Classroom time shall be utilized for discussion, problem-solving, practical applications, and higher-order learning activities.

Students shall be encouraged to use AI-powered learning platforms, simulation software, virtual laboratories, digital libraries, research databases, online certification courses, NPTEL, SWAYAM, MOOCs, and other technology-enabled learning resources to strengthen conceptual understanding and practical competence.

Continuous assessment shall be conducted through Active Learning Assignments (ALAs), quizzes, skill demonstrations, presentations, practical exercises, projects, case studies, innovation activities, peer assessment, reflective learning, and industry-oriented tasks instead of relying primarily on conventional written assignments.

Reference Books:

- [1] D. A. Lauer and S. Pentak, **Design Basics**, 9th ed. Boston, MA, USA: Cengage Learning, 2015.
- [2] W. Wong, **Principles of Form and Design**, 1st ed. New York, NY, USA: John Wiley & Sons, 1993.
- [3] W. Lidwell, K. Holden, and J. Butler, **Universal Principles of Design**, Revised and Updated ed. Beverly, MA, USA: Rockport Publishers, 2010.
- [4] G. Ambrose and P. Harris, **The Fundamentals of Graphic Design**, 1st ed. Lausanne, Switzerland: AVA Publishing, 2008.
- [5] B. Munari, **Design as Art**. London, UK: Penguin Books, 2008.



Suggested Assessment Guidelines:**Module-1: Introduction to Design**

Design Context Analysis & Documentation (20 Marks)		
Criteria	Description	Marks
Concept Understanding	Understanding of design, design elements and design principles.	5
Observation & Analysis	Ability to identify and analyze design elements and principles in selected design examples.	5
Documentation Quality	Proper use of sketches, photographs, visual references and written observations.	5
Presentation & Interpretation	Clear explanation and interpretation of design observations and findings.	5
Total		20

Module-2: Optics & Color Psychology

Color Theory & Color Application Study (20 Marks)		
Criteria	Description	Marks
Color Theory Understanding	Understanding of color wheel, color schemes and color relationships.	5
Application of Color Concepts	Ability to apply color combinations and harmony principles effectively.	5
Color Analysis	Analysis of color usage and psychological effects in design examples.	5
Documentation Quality	Proper presentation of color studies, charts and supporting documentation.	5
Total		20

Module-3: Spatial Geometry & Structural Equilibrium

Composition & Layout Analysis Study (20 Marks)		
Criteria	Description	Marks
Understanding of Composition Principles	Understanding of balance, hierarchy, rhythm, emphasis and layout organization.	5
Visual Analysis Skills	Ability to analyze visual compositions and layout structures.	5
Application of Layout Principles	Effective use of composition and layout techniques in practical work.	5



Documentation & Presentation	Quality of visual documentation and presentation of findings.	5
Total		20

Module-4: Creative Exploration

Creative Exploration (20 Marks)		
Criteria	Description	Marks
Creativity & Originality	Ability to generate innovative and original design ideas.	5
Concept Development	Development and refinement of creative concepts.	5
Visualization Skills	Effective use of sketching, mood boards and concept boards.	5
Documentation & Presentation	Quality of documentation and communication of creative ideas.	5
Total		20

Module-5: Application of Design

Application of Design (20 Marks)		
Criteria	Description	Marks
Understanding of Design Problem	Identification and understanding of design-related challenges.	5
Research & Observation	Collection of relevant information through observation and analysis.	5
Application & Problem-Solving	Ability to develop appropriate design solutions using design principles.	5
Documentation & Presentation	Effective presentation and communication of design solutions.	5
Total		20

