GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Bachelor of Interior Design

Level: UG

Branch: BID

Course / Subject Code : 2X55107

Course / Subject Name : Lighting & Lighting Design

w. e. f. Academic Year:	2024 - 2025
Semester:	5
Category of the Course:	Compulsory

Prerequisite:	Understanding the prerequisites of light and lighting design in interior design & a basic understanding of physics, particularly optics, helps in comprehending how light interacts with different surfaces and spaces. Familiarity with electrical systems and regulations is important to ensure that lighting designs are not only aesthetically pleasing but also safe and compliant with building codes
Rationale:	This course aims to explore the fundamentals of day lighting design and its impact on interior spaces. It also focuses on understanding artificial lighting as a critical element of design.

Teaching and Examination Scheme:

Teaching Scheme (in Hours)			Total Credits L+T+ (PR/2)	Assessment Pattern and Marks				Total Marks
				Theory		Tutorial / Practical		
L	T	PR	C	ESE (E)	PA / CA (M)	PA/CA (I)	ESE (V)	
0	1	1	2	50	NA	50	NA	100

Course Content:

Unit No.	Content	No. of Hours	% of Weightage
1.	**Unit 1:Introduction** Importance of Lighting Designand its role in interiors Terminologies used in the lighting design Types of lighting: Natural/Day Lighting, Artificial Lighting Principles of natural and artificial lighting design	04	20
2.	**Unit 2: Light &Mood** Psychology of Light and its Impacts on emotions, Effects of warm and cool lighting.	08	25

	Day lighting: luminaires and light sources, Light & shadow understanding, Strategies for using and modulating natural light to create character and ambiance in interior spaces. Artificial Lighting: efficient design and evaluation of ambient, accent, task, decorative, and mood lighting.		
3.	**Unit 3**: **Light and Colour** Understanding of colour principles, theories, and systems. Colours and psychology. Relationship of color with materials, textures, light, and form. To Integrate color and light into design concepts and develop cohesive color strategies suitable for spatial design.	06	20
4.	**Unit 4:Light Assessment** Light assessment through case study of a residence /commercial space Lighting Calculations Kelvin, CRI and IP Ratings Internal and External Illumination Lux Levels requirements Calculation of lux and lumens of fixtures.	08	25
5.	**Unit -5: Design and Prototyping lighting fixtures** Material exploration and application Hands on skill to make lighting fixtures	06	10
	Total		**100**

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Thrust / Projects:

- To understand Daylight and artificial lighting.
- To understand Interior lights concepts and material exploration.
- To calculate the luminance levels in an interior space and analyzing aesthetic lighting needs for interior spaces

Reference Books:

1. Lighting for Interior Design-By Malcolm Innes
2. Colour and Light: A Guide for the Realist Painter-By James Gurney,Andrews McMeel Publishing (30 November 2010)
3. Light X Design: 20 Years of Lighting-By Bentley Meeker,Glitterati Incorporated, 2010.

*- this is suggestive for common purpose. Faculty may decide on this, considering student group and institution philosophy.

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