GUJARAT TECHNOLOGICAL UNIVERSITY
BRANCH NAME: B.ID.
SUBJECT NAME: INTERIOR SERVICES- I
SUBJECT CODE: 2X35105
2nd Year: Semester: 3

Prerequisite:
It is a beginner course. There is no prerequisite for this course.

Rationale:
- Electrification
- Plumbing & Drainage
- Climatology and human comfort

Teaching and Assessment Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks	University Exam Type
Lectures	Tutorials	Practical	C	External exam		Internal exam			
				(ESE)Theory	(ESE) Viva	(PA)Theory	(PA)Viva		
2	0	0	2	NA	NA	50	50	100	Exam

Content:

Sr. No.	Content	Total Hours*	% Weightage*
1	**Unit 1**:**Electrification** • Brief introduction to electricity, generation, transmission, distribution. • Terminology such as volt, watt, ampere, etc. • Power distribution, wire distribution, types of wiring 3-phase & single phase, understanding phase, neutral and earth, looping and parallel connections, conduits & trays for wiring. • Control panels, switches.	4	10
2	**Unit 2**:**Plumbing** • Requirement of water for various usages. • Sources of water supply for various usages. • Types, requirements and functioning of underground and overhead water storage facilities. • Plumbing diagrams, various components, and types of plumbing pipes. • Various types of sanitary wares, sanitary fixtures, accessories, etc. • Water Proofing	6	20
3	**Unit 3**:**Drainage** • Different forms of refuse, garbage, toilet waste, storm water disposal.	6	20

	• General principles of drainage, drainage system, connection to outdoor drainage system or septic tank and soak pits. • Various types of chambers such as gully trap, inspection, and sewer trap chambers, etc. • Calculations of required sizes		
4	**Unit 4**:**Climatology and human comfort** • Elements of climate. • Appropriate climatic design of traditional and contemporary buildings in different climatic zones. • Implications of climatic forces in nature of spaces and forms, patterns of organizations and elements of build form. • Design parameters for achieving physiological and thermal comfort in interior spaces. • Site analysis, application of comfort diagrams, basic thermal units, thermal properties of various materials, theory of heat flow and transmission, solar orientation, human heat balance.	6	20
5	**Unit 5: Day lighting** • Introduction, Day Light Factor, Sky Component, externally and internally reflected components, design criteria s for openings and shadings to control light heat , wind and rain	4	10
6	**Unit 6:** Introduction to Energy performance standards in interior design. IGBC, ECBC, Standards for Sustainable Interior Design	6	20

*: indicative

Thrust / Projects:

- Drawings for each of the above mentioned service for any project such as a residence, commercial or institutional.
- Market survey of products, specifications, costs, etc.
- Drawings & details of minimum 2 types of systems incorporated in the Interior Design Studio project.

Reference Books:

- Time saver standards for Interior Design and space planning.
- Uppal: Electrical wiring estimating and costing.
- Mackey, W. L. : Building Construction Volumes II & IV.
- Barry, R. : The construction of Building Volume V.
- O.H.Koenigsberger : Manual of tropical housing and buildings

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