

GUJARAT TECHNOLOGICAL UNIVERSITY
BRANCH NAME: B. Arch
SUBJECT NAME: Advanced Technology in Architecture
SUBJECT CODE: 2X95014
5th Year: Semester-IX

Pre requisite: It is assumed that students have developed the basic understanding of architectural services: Lighting, sound, Air-conditioning, Building automation etc.

Rationale:

To understand the characteristics and functioning of certain advanced technologies and its application in Architecture.

Teaching and Assessment Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks	University Exam Type
Field work	Lectures	Studio	C	External Exam		Internal Exam		100	VIVA
1	2	1	04	(ESE) Theory	(ESE) Viva	(PA) Theory	(PA) Viva		
				00	50	00	50		

Content:

SR No	Content	Total Hours	Weight age
1	Introduction: Applications and Limitations of advanced materials such as concrete, advancements in Concreting, types of engineering woods, artificial stones, alabasters, Translucent Concrete, nanotechnology, etc.	16	25%
2	Green prefab walls – Roof treatment for air quality loss- Water efficiency – waste efficiency – Environmental Quality enhancement services(for eg. Green toilet & Green Kitchen),	16	25%
3	Geosynthetics: Its uses, applications, operations, technical specifications and skill required, modern fabrication techniques in parametric etc,	16	25%
4	Understanding the essence of smart devices, its advantages and disadvantages. Building automation, appliances, and innovation in the materials	16	25%

*: indicative

References:

1. John.F. Pile, Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.
2. Greeno, Roger, "Building Services Technology and Design", Longman Scientific and Technical, Harlow.
3. Riggs, R. (1992) Materials and components of Design, Prentice – Hall of India Pvt Ltd., New Delhi

List of Projects/Assignments*:

Lectures/Tutorial work shall consist of presentations on various topics of the subject. AV projects may be introduced to students for documenting best practices and advances through case studies. A group discussion or forum may be organized for discussion on various aspects of the subject.

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