

GUJARAT TECHNOLOGICAL UNIVERSITY

BRANCH NAME: B. Arch

SUBJECT CODE: 2X55012

SUBJECT NAME: Elective – I (Sustainable Architecture)

3rd Year, Semester: V

Prerequisite:

There is assumed that students, taking this elective course, have studied subjects like climatology and landscape design in 3rd and 4th semesters as they cover basic aspects of sustainability in built environment.

Rationale:

Advances in Sustainability & Energy efficiency techniques for buildings in various climates

Teaching and Assessment Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks	University Exam Type
Field work	Lectures	Studio		External exam		Internal exam			
			(ESE)Theory	(ESE) Viva	(PA)Theory	(PA)Viva			
NA	01	01	02	NA	50	NA	50	100	VIVA

Content:

Sr. No.	Content	Total Hours*	% Weightage*
1	Introduction to various rating systems for energy efficiency	08	25%
2	Introduction to various energy stimulation software	06	25%
3	Site planning aspects in order to achieve sustainable design	04	10%
4	Application of building materials for energy efficient and green design	06	10%
5	Best practices and advances of sustainable Architecture through various local, National & Global projects	08	30%

*: indicative

References:

- Design With Climate by Victor Olgyay
- Green Architecture, J.Michael & J.Crosbie
- The new Eco architecture, Porteous Colin

- Energy performance of building, Biard G.

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.