

**GUJARAT TECHNOLOGICAL UNIVERSITY**Syllabus for Diploma of Vocation (D.Voc), 1st Semester

Branch: Architectural Assistantship

Subject Name: Construction Technology – I

Subject Code: 1210601

With effective
from academic
year 2021- 22**Teaching and Examination Scheme:**

Teaching Scheme			Credits	Examination Marks				Total Marks
L	P	OJT		Theory		Tutorial / Practical		
			University exams (ESE)	Progressive Assessment (PA)	External Practical/ Viva Exam (ESE)	Internal Practical/ Viva Exam (ESE)		
3	-	-	3	50	-	-	-	50

L-Lecture; P-Practical; OJT – On Job Training; C – Credit; ESE – End Semester Examination; PA – Progressive Assessment

SEMESTER I**Focus :**

Understanding of basic building materials, their manufacturing process and properties. Understanding of basic building components in construction, building systems and related construction technology.

SR NO.	Contents:	Hrs.
1	<ul style="list-style-type: none"> Building components- Introduction to the various components of building like floors, roofs, openings, staircase etc. Preparing a wall section to understand these components. Study of all the types of masonry in Brick and Stone construction. 	14
2	<ul style="list-style-type: none"> Structures- Understanding the concept of load bearing, framed structures and composite. Types of footing and shallow foundation- typical wall section of shallow foundation. 	14
3	<ul style="list-style-type: none"> Timber Trusses - King post and queen post trusses with details of joints, alternative arrangements for tile and sheet roof covering, detail of eaves projection with soft boarding, Alternative detail of gutter at eaves, sprocket joint. 	14
Total		42

Projects:

Site visits of manufacturing companies and study of its process, study of mines and quarry to see the process, drawing sheets and market survey.

Skills:

Understanding of materials, its science and properties, sizes etc.

Method:

Theory lectures, Seminars, Expert lectures, Site visits and Report writing.

References:

- Barry R.- Construction of Building
- Kumar Sushil-Building Construction

- Mackay W. B.- Building Construction
- Mitchell and J.-Building Construction
- Rangwala- Building Construction
- Rangwala- Building Materials
- Scheffler Micheal & Hoigard Kurt R-Dimension Stone Use in Building Construction

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks				
R Level	U Level	A Level	N Level	E Level
5	20	15	5	5

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate and above levels (Bloom's Taxonomy)