

GANPAT UNIVERSITY									
FACULTY OF ARCHITECTURE DESIGN & PLANNING									
Programme	Bachelor of Architecture				Branch/Spec.	INSTITUTE OF ARCHITECTURE			
Semester	III				Version	2.0.0.			
Effective from Academic Year	2020-21				Effective for the batch Admitted in	June 2019			
Subject code	2IIIA02BMC		Subject Name		Building Materials and Construction - III				
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	2	-	2	2	6	Theory	40	60	100
Hours	2	-	3	2	7	Practical	-	-	-
Objective:									
<ul style="list-style-type: none"> To focus is on materials, their properties and applications, and their intrinsic relationship to structural systems and environmental performance. To develop application based understanding of: the relationship of materiality to construction systems and techniques. Understanding "Timber" as a building material and its application in a building along with its techniques used in different forms and joinery details of construction. 									
Learning Outcome:									
LO1: Understanding different elements of a building where timber can be used as material. LO2: Recognizing timber as a traditional building materials and it's evolution with time. LO3: Understanding application of timber in different parts of a building and construction techniques and joinery details.									
CONTENT & TEACHING UNITS									
Unit	Content								HRS
1	General introduction to building elements where timber can be used as a material for construction. Different forms of timber, its properties, strength and weakness. Evolution of use of timber with time and it's extraction from wood along with manufacturing process of it.								12
2	Learning different methods of construction used in construction of different types of timber doors and windows, their standard sizes and details of construction.								18
3	Understanding of basic structural system and construction technique to manufacture different types of timber roofs, walls and floors on ground and above them along with their construction and technical details.								30
4	Knowledge of compounds walls and gates made out of wood and the process behind its construction. Also, giving a brief introduction about processed wood.								12
5	Understanding construction techniques and details of different types of staircase made from timber and other structural and nonstructural elements like wall paneling and false ceiling constructed from timber.								24

Text Books	
1	NA
Reference Books	
1	Construction of Building Vol.-I- R.Berry
2	Building Construction Metric Vol.-I to IV- W.B.Mckay
3	Construction Technology Vol.-I-Chudley
4	Building Construction Illustrated-FransisD.K.Ching.
5	Fundamentals of Building Construction - Allen Edward

Note:

- Minimum one plate on each construction topic and study of material in the form of portfolio.
- Hands on session to be conducted to execute wall masonry with different materials in construction yard.
- Site visits to manufacturing units of brick, stone quarries, construction sites and case studies of vernacular construction systems to be arranged by studio teachers and report to be compiled by students.
- Market survey of materials should be carried out by students.