GUJARAT TECHNOLOGICAL UNIVERSITY

BRANCH NAME: M. Arch. (INTERIOR ARCHITECTURE)
SUBJECT NAME: MATERIALS AND PERFORMANCES
SUBJECT CODE: X16202
1st Year, Semester: I

Prerequisite:
Basic Knowledge of different materials such as Wood, Metals and Stone.

Rationale:
This subject explores the contemporary methods & complex techniques of joineries in different materials, there properties, uses and defects.

Teaching and Assessment Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks	University Exam Type
Field work	Lectures	Studio	C	External exam		Internal exam			
				(ESE)Theory	(ESE) Viva	(PA)Theory	(PA) Viva		
NA	2	2	4	60	00	40	00	100	2 hr. Exam

Content:

Sr. No.	Content	Total Hours*	% Weightage
1	**WOOD** Physical properties – growth rings, knots, heart wood and sap wood. Colour, water content, structure. Hard wood and soft wood. Joineries – dovetail, scissor joint etc. Contemporary methods & techniques used in Wood joineries. Uses & defects of wood.	16	25%
2	**METAL** Ferrous & non ferrous metals – steel, copper, brass. Steel – material properties, types of steel, treatments, history of steel making. Copper – physical characteristics, history, applications, degradation. Brass – physical properties, corrosion resistance, history, applications.	16	25%
3	**STONE** Natural & engineered stones. Granite –types of granite – based on composition, finishes. Uses of granite. Marble – composition & physical characteristics, finishes. Uses & applications of marble. Engineered stones – composition, properties. Uses & applications.	16	25%
4	**STUDY & PORTFOLIO** Consolidated study of the above material application in the form of portfolio.	16	25%

*: indicative

REFERENCES:

1. Construction materials for interior design:
2. principles of structure and properties of materials
3. By, William Rupp, Arnold Friedmann, Philip F. Farrell
4. Modern projects in wood, metal, & plastics, Patrick E. Spielman

List of Projects/Assignments*:

Subject work shall consist of lectures/presentation on the materials listed in the content, culminating to students preparing assignments on the same and a portfolio of application of the materials in the contemporary field of interior architecture.

*- this is suggestive for common purpose. Faculty may decide on this considering studio objective and students.