

AMID-10 INTERIOR DESIGN MATERIALS AND APPLICATIONS –II

Course Overview:

The course provides information on the properties, management, specifications, use, application and costs of the materials used in the interiors.

Objectives of the course:

To impart knowledge on the various materials while highlighting the current trends and innovations in the usage of interior design materials.

Expected Skills / Knowledge Transferred:

Knowledge required for specifying appropriate materials for various spaces in interiors of buildings.

Course Contents:

Materials to be studied based on –

Physical and behavioral properties, tools and technology of its application in the construction of floors, walls, ceilings, walls, doors, windows, staircase, built in furniture, partitions and other interior design components.

Visual quality of materials in terms of finishes through color, texture, modulations and pattern evolution. Material and workmanship, specification etc.

Unit – I

Glass and glass products – Composition and fabrication of glass, classification, types of glass- wired glass, fiber glass, rock wool, laminated glass, glass concrete blocks - their properties and uses in buildings. Commercial forms available – their physical and behavioral properties, tools and technology of its application in built forms. Material and workmanship, specifications.

Unit- II

Rubber – Natural rubber, latex, coagulation, vulcanizing and synthetic rubber- properties and application.

Unit – III

Plastics – Types, thermosetting and thermo plastics, resins, common types of moldings, fabrication of plastics, polymerization and condensation. Plastic coatings, reinforced plastic, plastic laminates – properties, uses and applications.

Unit – IV

Adhesives – Natural and Synthetic, their varieties, thermoplastic and thermosetting adhesives, epoxy resin. Method of application, bond strength etc.

Unit –V

Asphalt and Bitumen – Natural and artificial products, forms of asphalt, emulsion, cement mastic bituminous felt, their properties and uses.

Expected Output – Students should do case studies, market surveys, visual presentations, site visits and drawings.

Note: Market surveys to be conducted to find out the commercial and technical names, sizes, wastages, BIS and codes for materials, testing, fabrication, commercial methods of pricing, billing etc.

- **Reference Books:**

- Bindra, S.P. and Arora, S.P. Building Construction: Planning Techniques and Methods of Construction, 19th ed. Dhanpat Rai Pub., New Delhi, 2000.

- Moxley, R. Mitchell's Elementary Building Construction, Technical Press Ltd.

- Rangwala, S.C. Building Construction 22nd ed. Charota Pub. House Anand, 2004. • Sushil

- Kumar. T.B. of Building Construction 19th ed. Standard Pub. Delhi, 2003. • Chowdary, K.P.

- Engineering Materials used in India, 7th ed. Oxford and IBH, New Delhi, 1990.

- Rangwala, S.C. Building Construction: Materials and types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963.

- Francis D. Ching, Building Construction Illustrated, Wiley publishers, 2008.

