

AMID-04 INTERIOR DESIGN MATERIALS AND APPLICATIONS – I

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

Masonry – mud, bricks, building tiles i.e roof, floor and wall tiles, stones, clay, lime, sand, mortars, cement and aggregates, concrete, gypsum based plaster etc.

Unit- II

Timber, cane, bamboo – characteristics of good timber, defects, applications of timber like joints, floors, openings, staircases, roof forms etc. Finishes in timber like flooring, paneling etc. Finishes to timber.

Unit- III

Wood – Plywood, block boards, particle board, medium density fibre etc. – their properties, process of manufacture, tools and technology of its application and quality assessment, finishes to reconstituted wood, - lamination, polishing etc. Insulation materials – various insulating materials, their properties and applications. Surface finishes for wood products and derivatives etc., Coatings – clear and pigmented finishes technical or

protective coatings etc.

Unit – IV

Paints– Protective coating paints, types of paints – water paints, distempers, cement based paints, emulsion paints, anti corrosive paints etc. – composition, functions, preparation and application method, painting on different surfaces, defects in painting etc

Varnishes (oil and spirit) – various types – French polish, damp proofing finishes etc. and methods of application

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.