

DETAILED SYLLABUS

SECOND YEAR SEM – III

SUBJECT TITLE : MATERIAL & CONSTRUCTION-III

SUBJECT CODE : BVCID2001

Objective

Introduction of advanced materials and products that are used in Interior and Architecture in the current day and age. Knowledge of these materials and their implementation will help in the enhancement and up liftment of projects. It will also cater to the specific use of products keeping in mind the final utilization and precautionary measures that need to be consciously considered while designing.

Contents

- Materials and techniques used for water-proofing.
- Fire retardant materials and their applications.
- Thermal insulating materials and their applications.
- Outdoor and infrastructural products used as substitutes in today's times.

Major part of this semester will focus on **Market Research and Presentations** by students.

Evaluation

Continuous assessment of sessional work may consist of project work, sketch books, power point presentations, market surveys, research work etc.

REFERENCES:

1. Derek Clements-Croome, Derek J. Croome, Intelligent buildings: Design, Management and Operation, Thomas Telford Books, London, 2004.
2. Albert Ting-pat So, Wai Lok Chan, Intelligent Building Systems, Kluwer Academic Publishers, 1999.
3. Engineering Materials, S.C. Rangawala
4. Construction Materials of Interior Design, William Rupp

SUBJECT TITLE : ELECTIVE-I
SUBJECT CODE : BVCID2002

Objective:

The students are trained in representative skills through a team of specialized Design Faculty that focus on Sustainable Interior Materials, & Universal Design Approach.

Contents:

Sustainable Interior Materials

- Introduction to Need for sustainable materials.
- Introduction to various agencies involved in sustainable built environment in India such as GREEHA, LEED, IGBC, BEE etc.
- Role of sustainable building materials in certification process.
- Life cycle analysis of different materials w.r.t. various methods.
- Understanding Indoor Air Quality & its associated elements
- Case study
- Market survey

Universal Design Approach.

- Introduction to concept of Universal Design.
- Rules & regulations for UD.
- Need for Inclusive approach.
- Requirements with respect to interiors.
- Universal Design & Furniture design.
- Case Study

Evaluation

- Continuous assessment of sessional work may consist of project work, sketch books, power point presentations, market surveys, research work etc.

SUBJECT TITLE : INTERIOR BUILDING SERVICES-II
SUBJECT CODE : BVCID2003

Objective:

In this semester the learner is expected to understand the basic planning and working of principles of Electrification, lighting, fire safety & security systems. Students should be able to prepare layouts for the on-site implementation of all these services on site.

Contents:

- Natural and Artificial Lighting Systems.
- Illumination standards and artificial lighting design and lighting power density.
- Day light integrated lighting systems, timers and sensors.
- Different types of illuminations.
- Study of lighting fixtures and fittings used in interior spaces, special lighting systems for malls or displays.
- Provisions of standards and energy codes related to interior electrical services.
- Automation in lighting industry
- Fire safety systems – fire fighting provisions, types and applications.
- Fire retarding materials, fire rated doors etc.
- Introduction to principles of security, types of security systems, access control and its applications.
- CCTV

Evaluation

Sessional work may include application of above knowledge on their previous / current semester design.

Continuous assessment of sessional work may consist of project work, case studies, research, power point presentations etc.

REFERENCES:

1. Derek Clements-Croome, Derek J. Croome, Intelligent buildings: Design, Management and Operation, Thomas Telford Books, London, 2004.
2. Albert Ting-pat So, Wai Lok Chan, Intelligent Building Systems, Kluwer Academic Publishers, 1999.
3. John.F. Pile, Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.
4. Wanda Jankowski, Lighting : In Architecture and Interior Design, pbc intl, 1995.
5. Moore Fuller, Concepts and practice of Architectural Day lighting, Van Nostrand Reinhold co. New York, 1985.
6. David Egan. M. Concepts in Architectural lighting McGraw Hill Book company, New York, 1983.

SUBJECT TITLE : COMPUTER APPLICATIONS-II

SUBJECT CODE : BVCID2004

Objective:

To introduce 3D modeling of interiors in softwares like Architectural Desktop, AutoCAD, Revit, Archicad & Sketch up etc. including material application and rendering.

Contents:

1. Preparation of 3D views of interior projects handled in current/Previous Semester.
2. Application of materials, Lights, Cameras etc.
3. Rendering of 3D Models.
4. Outputs

Evaluation:

Continuous assessment of sessional work consists of reports/ presentation and analytical work consisting of lab assignments in hard copy.

SUBJECT TITLE : INTERIOR DESIGN STUDIO-II

SUBJECT CODE : BVCID2005

Objective:

The learner is expected to apply advanced skills to planning of residential interior spaces with clear understanding and usage of contemporary materials, construction techniques and services required for the design project. Study and application of anthropometry, ergonomics, basic design principles

Contents:

- Design of Studio Apartment of Small or medium size not exceeding 50.00 sq.mts. (Carpet Area)
- Large multilevel luxury residence such as a Penthouse, Bungalow etc. (Carpet Area between 200.00 to 300.00 sq.mts)

Evaluation

Continuous assessment of sessional work may consist of sketches, perspective drawings, scale drawings(study models in various materials, case studies, visit reports, power point presentations etc. Design portfolio should consist of Project Brief, Client profile, Theme Sheet, Measurement Plan/ Furniture Layout Plan/ Flooring Layout/ Reflected Ceiling Layout/ Electrical Layout/ Lighting Layout, Sectional Elevations/ Perspective Views).

SUBJECT TITLE : WORKING DRAWING STUDIO-I

SUBJECT CODE : BVCID2006

Objective:

In this semester the learner is expected to prepare working drawing and details of Residential furniture systems using various materials such as wood, plywood, block boards, artificial

boards, metal, glass, stone etc in various finishes. The learner is suggested to prepare working drawing and related details of furniture designed by them in the previous semesters.

Contents

Working drawing of the following furniture items may be prepared based on the design projects done in previous semester.

1. Stool/Table/Dining Table/ Centre table
2. Sofa with Chairs
3. Double Bed with side tables
4. Dressing unit

Evaluation

Continuous assessment of sessional work may consist of sketches, perspective drawings, scale drawings & study models

REFERENCES:

1. F D K Ching, Building Construction Illustrated, Van Nortrand
2. William P. Spence L. Duane Griffith, Furniture & Cabinet Construction, Prentice Hall Inc. New Jersey
3. Mario Dal Fabro, How To Build Modern Furniture, McGraw Hill Book Company, New York.
4. William P. Spence L. Duane Griffith, Cabinet making, design & construction, Prentice Hall Inc. New Jersey
5. D.A.C.A. Boyne, Architects' Working Detail Vol. I/ III/ IV/ V & VIII, The Arch. Press Ltd. London

**SUBJECT TITLE : ASSISTANT INTERIOR DRAFTSMAN &
SITE SUPERVISOR**

SUBJECT CODE : BVCID2007

Objective:

1. Communicating with Supervisors, Peers, or Subordinates — Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
2. Performing Administrative Activities — Performing day-to-day administrative tasks such as maintaining information files and processing paperwork.
3. Documenting/Recording Information

Evaluation:

Assessment of practical courses / on job training course shall be in equal proportion by the internal and external examiners. The external assessment shall be essentially by the Sector Skill Council / Training provider for skill competency through certified skill assessors.

SECOND YEAR

SEM – IV

SUBJECT TITLE : MATERIAL & CONSTRUCTION-IV
SUBJECT CODE : BVCID2008

Objective:

Introduction of advanced materials and products that are used in Interior and Architecture in the current day and age. Knowledge of these materials and their implementation will help in the enhancement and upliftment of projects. It will also cater to the specific use of products keeping in mind the final utilization and precautionary measures that need to be consciously considered while designing.

Contents:

- Materials and techniques used for water-proofing.
- Fire retardant materials and their applications.
- Thermal insulating materials and their applications.
- Acoustical materials and their applications.

Major part of this semester will focus on **Market Research and Presentations** by students.

Evaluation

Continuous assessment of sessional work may consist of project work, sketch books, power point presentations, market surveys, research work etc.

References:

1. Bindra, S.P. and Arora, S.P. Building Construction: Planning Techniques and methods of Construction, 19th ed. Dhanpat Rai Pub., New Delhi, 2000.
2. Moxley, R. Mitchell's Elementary Building Construction, Technical Press Ltd.
3. Rangwala, S.C. Building Construction 22nd ed. Charota Pub. House Anand, 2004.
4. Sushil Kumar. T.B. of Building Construction 19th ed. Standard Pub. Delhi, 2003.
5. Chowdary, K.P. Engineering Materials used in India, 7th ed. Oxford and IBH, New Delhi, 1990.
6. Rangwala, S.C. Building Construction: Materials and types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963.
7. Francis D. Ching, Building Construction Illustrated, Wiley publishers, 2008.
8. Elementary Building Construction, Technical Press Ltd. Rangwala, S.C. Building Construction 22nd ed. Charota Pub. House Anand, 2004. 3. Sushil Kumar. T.B. of Building Construction 19th ed. Standard Pub. Delhi, 2003

SUBJECT TITLE : SPECIFICATION WRITING FOR INTERIORS

SUBJECT CODE : BVCID2009

Objective:

The learner will be equipped with knowledge and skills needed for writing specifications of different materials and services for the tendering process.

Contents:

1. Specification writing for civil items such as brick work, plastering, flooring, & other built in items.
2. Specification writing for various interior services such as furniture items, painting, false ceiling, electrification, plumbing, fire fighting, security & Lan systems etc.

Students are also expected to visit exhibitions, material manufacturers units, ongoing interior sites, attend seminars and presentations of consultants and vendors related to interior profession.

REFERENCES:

1. Roshan Namavati, Professional Practice (Estimation & Valuation), Lakhani Book depot
2. Roshan Namavati, Architectural Detailing in Residential Interiors, Lakhani Book depot
3. C M Pitrowski, Professional Practice in Interior Design, Van Nostrand Reinhold
4. Harry Siegel, CPA, Alan Sigel, A Guide to Business Principle and Practices for Interior Designers, Whitney library of design.
5. William R. Hall, Contract Interior Finishes, Whitney library.
6. William Rupp, Construction Materials of Interior Design, Whitney Library.

SUBJECT TITLE : INTERIOR BUILDING SERVICES-III

SUBJECT CODE : BVCID2010

Objective:

In this semester the learner is expected to understand the basic planning and working of principles of Mechanical Ventilation , Air conditioning systems, Thermal & acoustical systems. Students should be able to prepare layouts for the on-site implementation of all these services.

Contents:

Mechanical Ventilation, Air conditioning systems

- Principles of forced ventilation: Mechanical Ventilation,
- Principles of Ducting and distribution for ventilation and conditioned air.
- Types of Fans: propeller, Auxiliary etc, Mechanical modes of ventilation
- Principles of Air conditioning, Refrigeration Cycle

- Systems of Air-conditioning: Non-ductable and ductable
- Non-ductable - Window unit, Split units (Floor, wall, ceiling mounted, etc).
- Ductable - Split, Packaged (Air-cooled duct, Floor standing air & watercooled units, Central air-conditioning, DX systems, Chilled water systems etc according to criteria of Volumetric load, occupancy and various activities.

Thermal & acoustical systems

- Principles of heat and effects of heat, Purpose of thermal insulation, advantages of insulation, general principle of thermal insulation and modes of insulation.
- Introduction of Sound and properties and propagation of Sound,
- Types of Sound and effects, objective of Acoustics Terminologies.
- Strengthening, insulating, and eliminating of sound.
- Defects of sound.
- Applications: Strengthening of sound, Insulating, and elimination of sound
- for various activity spaces such as Sound recording studio, Conference hall, Open office and small auditorium

References:

1. Architectural Acoustics, Principles and Design, Madan Mehta & James Johnson
2. Noise and vibration, Frank and John Walk
3. Heating, cooling, Lighting Design, Norbert Lechner
4. Building services and equipments, Donald Hoff
5. ABC of Air-conditioning, Ernest Tricomi

SUBJECT TITLE : QUANTITY SURVEYING AND ESTIMATION

SUBJECT CODE : BVCID2011

Objective:

The learner will be equipped with knowledge and skills needed for preparing quantities & estimation for tendering works of interior projects.

Contents:

1. Introduction to concepts of estimation, costing & rate analysis.
2. Need for estimating, costing & rate analysis.
3. Components of estimation, costing & analysing rates (Drawings & specifications, units & modes of measurements, work out put, material & labour cost, contingencies, profit margins, indirect costs, etc).
4. Methods of estimating (lump-sum, work specific, area of use, per number of user, day-work, item-rate, etc); costing (percentage basis, item rate basis, etc) & rate analysis (Primarily item rate basis)

Evaluation

Continuous assessment of sessional work may consist of project work, power point presentations, market surveys, research work etc. It will also contain detail study of any one previous project in detail.

SUBJECT TITLE : INTERIOR DESIGN STUDIO-III

SUBJECT CODE : BVCID2012

Objective:

The learner is expected to apply advanced skills to planning of commercial interior spaces with clear understanding and usage of contemporary materials, construction techniques and services required for the design project.

Contents:

Design commercial interiors ranging from simple activity based small-scale commercial space of about 50 Sq. M. to complex activity based large-scale commercial space of about 500 Sq. M. (Shop to Corporate office)

Evaluation

- Continuous assessment of sessional work may consist of sketches, perspective drawings, scale drawings(, study models in various materials, case studies, visit reports, power point presentations etc.
- Design portfolio should consist of Project Brief, Client profile, Theme Sheet, Measurement Plan/ Furniture Layout Plan/ Flooring Layout/ Reflected Ceiling Layout/ Electrical Layout/ Lighting Layout, Sectional Elevations/ Perspective Views).

References:

- Stores: Retail Display and Design, Vilma Barr Katherine Field
- New shop Design, Carles Broto
- Exhibition Design, Rolshoven Martin
- Interior Design Bar and Restaurant, Jeong JI Seong ed.
- Design for Shopping New Retail Interiors, Nanuelli Sara

SUBJECT TITLE : WORKING DRAWING STUDIO-II

SUBJECT CODE : BVCID2013

Objective:

In this semester the learner is expected to prepare working drawing and details of Commercial furniture systems using various materials such as wood, plywood, block boards, artificial boards, metal, glass, stone etc in various finishes. The learner is suggested to prepare working drawing and related details of the following furniture designed by them.

Contents:

Working drawing of the following may be prepared based on the design projects

1. Executive Desk with side / back credenza.
2. Reception Counter

3. Conference Table
4. Shop front / Show window
5. Bank Counter/Ticket booking Counter
6. Bar Counter/Pantry Counter
7. Modular furniture systems
8. Furniture for differently abled

Evaluation

Continuous assessment of sessional work may consist of Computer generated drawings, journals, visit reports, sketch books, power point presentations etc.

REFERENCES:

1. F D K Ching, Building Construction Illustrated, Van Nortrand
2. William P. Spence L. Duane Griffith, Furniture & Cabinet Construction, Prentice Hall Inc. New Jersey
3. Mario Dal Fabro, How To Build Modern Furniture, McGraw Hill Book Company, New York.
4. William P. Spence L. Duane Griffith, Cabinet making, design & construction, Prentice Hall Inc. New Jersey
5. D.A.C.A. Boyne, Architects' Working Detail Vol. I/ III/ IV/ V & VIII, The Arch. Press Ltd. London

SUBJECT TITLE : INTERIOR DRAFTSMAN & SITE

SUPERVISOR

SUBJECT CODE : BVCID2014

Objective:

1. Evaluate blueprints and schematics to determine daily work activities.
2. Oversee contractors and subcontractors throughout all stages of site preparation and build-out. Conduct daily inspections for compliance and site safety.
3. Liaise with local agencies on permitting and regulations.

Evaluation:

Assessment of practical courses / on job training course shall be in equal proportion by the internal and external examiners. The external assessment shall be essentially by the Sector Skill Council / Training provider for skill competency through certified skill assessors.