

SAVITRIBAI PHULE PUNE UNIVERSITY

[Formerly the University of Pune]



B.VOC [INTERIOR DESIGN]

TO BE IMPLEMENTED FROM 2020-21

AD HOC BOARD OF STUDIES OF B.VOC DEGREE PROGRAMS IN
PHYSICAL SCIENCES, ENGINEERING AND ARCHITECTURE

FACULTY OF SCIENCE AND TECHNOLOGY

COURSE STRUCTURE

Level	Code	Educational Component	Credit	Marks	PP/SV/SS
SEM I	Theory				
	BVCID1001	Material & Construction -I	3	100	PP
	BVCID1002	History of Interior Design-I	3	100	SS
	BVCID1003	Environmental Studies	3	100	SS
	BVCID1004	Communication Skills	3	100	SS
	Lab/ Practical				
	BVCID1005	Material & Construction Studio –I	2	50	SV
	BVCID1006	Drawing & Graphics	2	50	SS
	On-Job-Training (OJT)/Qualification Packs				
BVCID1007	Workshop –I	14	100	SV	
TOTAL			30	600	
SEM II	Theory				
	BVCID1008	Material & Construction -II	3	100	PP
	BVCID1009	History of Interior Design-II	3	100	SS
	BVCID1010	Interior Building Services-I	3	100	PP
	BVCID1011	Computer Applications-I	3	100	SS
	Lab/ Practical				
	BVCID1012	Material & Construction Studio –II	2	50	SS
	BVCID1013	Interior Design Studio –I	2	50	SV
	On-Job-Training (OJT)/Qualification Packs				
	BVCID1014	Workshop -II	14	100	SV
TOTAL			30	600	
SEM III	Theory				
	BVCID2001	Material & Construction -III	3	100	PP
	BVCID2002	Elective –I Sustainable interior Materials, Universal Design Approach in Interior Design	3	100	SS
	BVCID2003	Interior Building Services-II	3	100	PP
	BVCID2004	Computer Applications-II	3	100	SS
	Lab/ Practical				
	BVCID2005	Interior Design Studio –II	2	50	SV
	BVCID2006	Working Drawing Studio -I	2	50	SS
	On-Job-Training (OJT)/Qualification Packs				
BVCID2007	Assistant Interior Draftsman & Site Supervisor	14	100	SV	
TOTAL			30	600	

SEM IV	Theory				
	BVCID2008	Material & Construction -IV	3	100	PP
	BVCID2009	Specifications Writing for Interiors	3	100	SS
	BVCID2010	Interior Building Services-III	3	100	PP
	BVCID2011	Quantity Surveying And Estimation	3	100	SS
	Lab/ Practical				
	BVCID2012	Interior Design Studio –III	2	50	SV
	BVCID2013	Working Drawing Studio -II	2	50	SS
	On-Job-Training (OJT)/Qualification Packs				
BVCID2014	Assistant Interior Draftsman & Site Supervisor	14	100	SV	
	TOTAL		30	600	
SEM V	Theory				
	BVCID3001	Furniture Design	3	100	SV
	BVCID3002	Office Management & Practice	3	100	PP
	BVCID3003	Advance Interior Building Services	3	100	SS
	BVCID3004	Elective-I: Set Design, Visual Display Design	3	100	SS
	Lab/ Practical/Studio				
	BVCID3005	Interior Design Studio –IV	2	50	PP
	BVCID3006	Working Drawing Studio -III	2	50	SS
	On-Job-Training (OJT)/Qualification Packs				
BVCID3007	Assistant Interior Designer & Site Supervisor OR	14	100	SV	
	Assistant Set Designer/ Visual Display Designer				
	TOTAL		30	600	
SEM VI	Theory				
	BVCID3008	Seminar on Contemporary Interior Design	3	100	SS
	BVCID3009	Codes & Standards for interior Design	3	100	SS
	BVCID3010	Elective-II : Landscape Design, Exhibition Design, Multimedia & Animation	3	100	SS
	Lab/ Practical/Studio				
	BVCID3011	Interior Design Project	7	200	SV
	On-Job-Training (OJT)/Qualification Packs				

	BVCID3012	Assistant Interior Designer & Site Supervisor	14	100	SV
	TOTAL		30	600	

SS- Sessional work. SV-Sessional Viva Voce, PP-Theory paper exam.

DETAILED SYLLABUS

FIRST YEAR

SEM – I

SUBJECT TITLE : MATERIAL & CONSTRUCTION-I

SUBJECT CODE : BVCID1001

OBJECTIVES –

- Explain nature and application of building materials/products used in interiors.
- Terminology, nomenclature of various parts of building and interiors from foundation to roof

CONTENTS –.

- Introduction to products and materials used in interiors;
 1. Stone: Geological, Physical & Chemical Classification. Type, size, properties & uses.
 2. Clay & clay products: Types, qualities & properties of clay.
Types, qualities & properties of brick.
Types, qualities & properties
 3. Cement, Lime, sand & Gypsum.
Types, properties of cement, lime & aggregates.
Types & application of plaster, mortar & concrete.
Properties & application of gypsum & its properties.
 4. Bricks
 5. Light weight concrete blocks.

For all the above mentioned materials a basic understanding of the market research and current trend analysis will be cumulated through **Market Research and Presentations** by students there upon.

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 Wileyand 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 : HISTORY OF INTERIOR DESIGN -I

SUBJECT CODE : BVCID1002

Objective :

To create awareness of History as an aid to design process

Contents:

- Introduction to furniture history.
- Evolution of furniture over a period based on climate, social factors, life style, technical and stylistic development availability of materials and various movements in design.
- Ancient civilization, art, architecture of Egypt.
- Furniture developed by Greeks and Romans by 3rd century A.D. Medieval era in Europe, utilitarian furniture developed from Romanesque till Gothic times.
- Renaissance furniture, Neoclassical and Regency period in history of furniture-18th century

Evaluation

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

Reference Books:

1. Joseph Aronson, The Encyclopedia of Furniture: Third Edition ,1961
2. Bradley Quinn, Mid-Century Modern: Interiors, Furniture, Design Details, Conran Octopus Interiors, 2006.
3. Jim Postell, Furniture Design, Wiley publishers, 2007.
4. Edward Lucie-Smith , Furniture: A Concise History (World of Art) , Thames and Hudson, 1985
5. Robbie. G. Blakemore, History of Interior Design and Furniture: From Ancient Egypt to Nineteenth-Century Europe, Wiley publishers, 2005.
6. John.F. Pile, Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.

SUBJECT TITLE : ENVIRONMENTAL STUDIES

SUBJECT CODE : BVCID1003

In this semester the learner is expected to understand the concept and principles of environment and its impact on interior spaces, including climatic study and parameters of human comfort.

Objective:

The objective of this subject is to make students environment conscious. They will be exposed through the fundamental concepts of environment and ecosystem so that they can appreciate the importance of individual and collective efforts to preserve and protect our environment. This subject must raise various questions in student's mind that how our environment is inter dependent on various factors and how human being must care for their natural surroundings.

Focus should also be on the following:-

- Understanding climate / weather and study of 6 climatic zones and its effect on the structure
- Pollutions and its effect on humans
- Relation of environment on humans.
- Climatic factors which affect thermal comfort in humans, along with its interface with Interiors.
- Thermal comfort and solar passive design
- Understanding wind rose, sun-path, bio-climatic chart, psychometric chart, mahoney tables. Importance of materials in the Interiors.
- Green Technology: Principles of Green technology, Zero Waste Technology,

Contents:

1. Climatic factors which affect thermal comfort in humans, along with its interface with Interiors.
2. Importance of materials in the Interiors. Properties of materials.
3. Importance of day lighting, IAQ its application and ventilations
4. Water and its conservation
5. Introduction to sustainable material
6. Concept of Reduce-Reuse - Recycle
7. Properties of materials and heat transfer.
8. Evaluation of materials on environmental aspects
9. Lighting design and energy usage, conservation of energy.
10. Introduction to all mechanical systems used in the interiors.
11. Understanding of LEED, GRIHA. Leadership in energy and environmental design.

Evaluation

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

References Books:

1. E. Barucha, Textbook of Environmental Studies for Undergraduate Courses, Universities Press (India)
2. S. Chawla, A Textbook of Environmental Studies, McGraw Hill Education Private Limited, 2012
3. G. T. Miller, Environmental Science, Thomas Learning, 2012
4. W. Cunningham and M. A. Cunningham, Principles of Environment Science: Enquiry and Applications,
5. R. Rajagopalan, Environmental Studies: From Crisis to Cure, 2nd Edition, Oxford University Press, 2011.
6. A.K. De, Environmental Chemistry, New Age Int. Publ. 2012,
7. Kaushik and C.P. Kaushik, Perspectives in Environment Studies, 4th Edition, New Age International Publishers, 2013
8. Environmental Engineering by Gerard Kiely, Tata McGraw-Hill Publishing Company Ltd. New Delhi, 2010.

SUBJECT TITLE : COMMUNICATION SKILLS

SUBJECT CODE : BVCID1004

Objective:

- To enhance verbal and non verbal communication skills of students with an intension to improve the skills of reading and writing, language and conversational ability in various mediums such as presentation (written - graphics and audio) face to face etc.
- To enable the student to ultimately explain / defend his/her design to single person or panel.

Contents:

1. Principles of communication
2. Types of communication
3. Verbal and non verbal communication
4. Body language and voice culture
5. Writing skills
6. Presentation skills

7. Personal grooming and confidence building, manners & Etiquettes.
8. Debates, Skits, Group discussions
9. Time management

Evaluation

- Continuous assessment of sessional work may consist of evaluation of individual's writing and presentation skills, project work, power point presentations etc.
- Book reviews of any interior works.
- Technical report of visit to site/ Factory or exhibitions etc.
- Group Seminar on any relevant interior trend & style.

Reference Books:

1. Geetha Jajivan, Kiranmai: Course in listening and speaking Skills part I, Foundation Books Pvt Ltd.
2. Lorven: Enrich your communication in English

SUBJECT TITLE : MATERIAL & CONSTRUCTION STUDIO-I

SUBJECT CODE : BVCID1005

Objective:

To introduce basic materials used in construction, basic components of a building and method of construction and representation of the same.

Contents

1. **Structural components:** Introduction to structural components and elements of built structure.
2. **Walling Systems:** Brick walls for interior division of spaces and other uses (half brick and one brick thickness). Light weight concrete blocks, hollow blocks, aerated concrete blocks.
3. **Joinery:** Introduction to joinery and joints, limitations and applications.
4. **Openings:** Doors, windows, ventilators with focus on different modes of operation and their types. Lintels and Arches based on structure and materials.

Evaluation

- Continuous assessment of sessional work should consist of scaled drawing plates for topics: Lintels and Arches.
- Assessment of topics- Structural components, Walling systems and joinery to be assessed in form of sketches, visit reports, power point presentations.

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. Rangwala, S.C.
3. Building Construction 22nd ed. Charota Pub. House Anand, 2004.
4. Sushil Kumar. T.B. of Building Construction 19th ed. Standard Pub. Delhi, 2003.

SUBJECT TITLE : DRAWING & GRAPHICS

SUBJECT CODE : BVCID1006

Objective:

Introduction to graphical language and representation techniques in form of technical drawings to enable learner to visualize the design in effective manner.

Contents

- Drafting techniques, graphic codes, symbols and architectural lettering
- Architectural scales
- Solid geometry
- Orthographic projections of simple, complex solids and hollow objects, Sections
 - Isometric and axonometric projections.
 - Rendering techniques

Evaluation

Continuous assessment of sessional work should consist of scaled drawings for geometrical objects, solid geometry and orthographic projections

REFERENCES:

1. N.D. Bhatt, Engineering drawing- Plane & Solid Geometry, Charottar Pub. Anand, Gujrat
2. S. C. Rein Koff, Interior Graphics and Design Standards, Whitney Library, New York
3. Robert W. Gill, The Thames and Hudson Manual of Rendering with pen and ink, Thames & Hudson Ltd. London
4. Graphic Shaw, Interior Perspectives to Architectural Designs
5. Shankar Mulik, A Text Book of perspectives and graphics, Allied Pub. Bombay
6. F D K Ching, Perspective Drawing

SUBJECT TITLE : Workshop –I

SUBJECT CODE : BVCID1007

Contents

- Introduction of carpentry tools and machines.
- Different types of joints and their function.
- Introduction to modeling with paper, paper board, plastics, plaster of Paris, wood and clay.
- Basic model making technique, different types of material and their techniques.
- Material collection- timber, sand brick, stone, aggregate etc.
- Identification and selection of timber, timber operations.
- Introduction of masonry tools.
- Demonstration of brickwork, stonework, demonstration of plaster and textured finishes.
- Models for basic design and Interior design studio work.
- Study visits to sources of local building materials and to local building materials under construction to study their actual use.

Evaluation

FIRST YEAR

SEM – II

SUBJECT TITLE : MATERIAL & CONSTRUCTION-II

SUBJECT CODE : BVCID1008

Objective:

- To familiarize the students of Interior Design material and construction methodology.
- Objective of this course is to know various types of materials available in the market which are used in Execution of Interior Design projects and their application in appropriate design and area.

Contents:

1. Various materials used for interior works – wood, Timber, Timber derivatives & Bamboo with reference to its: Types, Uses, Strength of material.
2. Market surveys based on above mentioned different materials.
3. Interior Finishes: Floor Finishes – Stone, Tiles, Wood etc.
4. Wall Finishes : Plaster, Paints, Stone Cladding, Wall papers. Etc
5. Ceiling Finishes : False Ceiling.
6. Glass & Acrylic : Types, Treatments and usage in Interior.

Evaluation:

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

Reference Book:

1. Building Construction, by Sushil Kumar [R2] Building Construction, by W. B. Mckay
2. Building Construction, by B.C. Punia
3. Engineering Materials, by S.C. Rangwala
4. Engineering Materials, by Gurucharan Singh

SUBJECT TITLE : HISTORY OF INTERIOR DESIGN-II

SUBJECT CODE : BVCID1009

Objective:

- To make the aware of historical backgrounds of World Interiors to derive designs and Patterns based on it for contemporary and Modern Interiors.
- To familiarize the students with the historical interior and furniture in contemporary.

Contents:

1. Indian Handicrafts and Handlooms. Analysis of Hindu, Buddhist, Indo-Islamic interiors with special emphasis on decoration, ornamentation and motifs.
2. Different Construction techniques and materials used in interiors as part of structure/decorations with reference from influence of architectural forms and decorations such as Doors, Windows, Pillars, Columns, Paneling, Ceiling, Cornice frieze, Dado, Stone inlay and architectural decoration.
3. Influence of British Architecture on Indian Interiors and then gradual change in Architectural features in "British India".
4. Oriental furniture and how it is different from western counterparts.
5. Furniture of Japan and China.
6. Indian furniture, traditional and colonial.
7. Art Deco, Art Nouveau movement in art & furniture.

Evaluation:

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

Reference Book:

1. John F. Pile, A History of Interior Design, 2nd edition, Laurence King Publishing, 2005
2. Jeannie Ireland, History of Interior Design, air child publications, illustrated ed., 2009
3. Elaine, Michael Dywer, Christopher Mackinnon, Norman A.J. Berisford Denby, A History of Interior Design, Rhodex International, 1983.
4. Tadgell Christopher, The History of Architecture in India: from the dawn of civilization to the end of the Raj, Om Book Service, New Delhi, 1990.
5. Rowl Benjamin. Art & Architecture of India.
6. History of Fine Arts in India and West by Edith Tomary
7. History of World Architecture by Sir Banister Flecher
8. Indian Architecture by Satish Kumar
9. Interior Deign by Ahemad Kasu

SUBJECT TITLE : INTERIOR BUILDING SERVICES –I

SUBJECT CODE : BVCID1010

Objective:

Introduction to the principles of water supply, sanitation and drainage system and various types of sanitary fittings and fixtures to enable learner design appropriate service layout.

CONTENTS:

In this semester the learner will be introduced to the principles of water supply, sanitation, drainage, and it's applicable in interior spaces.

They will be dealt with the following topics in detail:-

- Principles of water supply, sanitation and drainage system and various types of sanitary fittings and fixtures
- Cold and hot water distribution systems, types of water supply pipes and joints, fixtures and fittings. Soil and waste water disposal systems, types of sanitary pipes and joints.
- Plumbing works for Kitchens, toilets, baths, washing machines, dishwasher, loft tanks etc.
- Detail for bath Tubs, Rain Shower, Shower system, Jacuzzis.
- Distribution and disposal layout.

Evaluation

Continuous assessment of sessional work may consist of project work, sketch books, power point presentations etc

.REFERENCE BOOKS:

1. Rangawala, S.C. Engineering Materials, Charter publishing house, Anand 1963.
2. Rangawala, S.C. Building Construction, Charter publishing house, Anand 1963.
3. Rangawala, S.C. Water supply & sanitation Engineering, Publishing House, Roorkee.
4. Pratap R.M. (1988) Interior design Principles & Practice, Standard publishers distribution, Delhi.
5. F. Hall, Plumbing Technology, British library Cataloguing in Publication Data.
6. Shubhangi Bhide, Building services & equipments, Rudra offsets.
7. H.L. Ohri, Water Supply & Sanitary Engineering, Charotar Publishing House.
8. C. Panchadari, Water Supply & sanitary installations, Bureau of Indian Standards, N. Delhi.
9. Sandeep Mantri, Practical Bldg. Const. & its management, Mantri Proj. & Consultancy Pvt. Ltd.

SUBJECT TITLE : COMPUTER APPLICATIONS-I

SUBJECT CODE : BVCID1011

Objective:

- To introduce basic understanding of other software like Architectural Desktop, AutoCAD, Revit, Archicad etc including 3D modeling (creating shades and shadows, attaching materials and rendering)

Contents:

- Preparation of two dimensional interior drawings (including plans, elevations and sections),
- incorporating layers, line-weights, texts, scale, dimensioning
- Formatting of drawings for taking prints and plots.

Evaluation:

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

REFERENCES BOOKS:

1. N.D. Bhatt, Engineering Drawing- Plane & Solid Geometry, Charottar Pub. Anand, Gujrat
2. S.C. Rein Koff, Interior Graphics & Design standards, Whitney Library, New York.
3. Robert W. Gill, The Thames & Hudson Manual of Rendering with Pen & Ink, Thames & Hudson Ltd. London.
4. Graphic Shaw, Interior Perspectives to Architectural Designs.
5. Shankar Mulik, A text Book of perspectives & graphics, Allied Pub. Bombay.
6. F.D.K. Ching, Perspective Drawing.

SUBJECT TITLE : MATERIAL & CONSTRUCTION STUDIO -II

SUBJECT CODE : BVCID1012

Objective:-

To give an in-depth knowledge and understanding of the materials that are used in Interior and Architecture with reference to the material properties, feasibility, availability, durability and sustenance to climatic conditions and also the aesthetic value it will add with its use.

Contents:

- T.W. Joinery
- Bamboo Joinery
- Different Types of doors & Windows in timber. Such as paneled door, flush door, Glazed & Glazed & paneled doors.
- Different types of staircases in timber & other materials.

Evaluation:

Continuous assessment of sessional work should consist of scaled drawing plates for topics T.W.Joinery, Doors & Windows & Staircase. Project work, sketch books, power point presentations etc on Bamboo Joinery.

REFERENCES BOOKS:

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. Chowdhary, 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.

SUBJECT TITLE : INTERIOR DESIGN STUDIO –I

SUBJECT CODE : BVCID1013

Objective:

In this semester the learner is expected to apply the basic design acumen and anthropometric observations in the designing of Residential interior spaces such as Individual rooms, Studio Apartments, Row Houses, Detached Semidetached housing typologies and is expected to present the study through detailed measured drawings and sketches.

Contents:

Introduction to parameters of design, anthropometrics and ergonomics, human activity and use of interior spaces and furniture.

- Analysis of design to perceive elements which define the character of the environment.
- Analysis of design process.
- Concept formation for design.

Evaluation:

- Continuous assessment of sessional work may consist of sketches, scaled 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

REFERENCE BOOKS:

1. Ahmed Kasu, Interior Design, TWAINE Pub. Bombay
2. Sudhir Diwan, Sanskruti a manual of Interior Design Vol-1, Interior Affairs, Mumbai
3. Karlen Mark, Space planning Basics, Van Nostrand Reinhold, New York, 1992.
4. Joseph D Chiara, Julius Panero, & Martin Zelnick, Time Saver standards for Interior Design & space planning, 2nd edition, Mc-Graw Hill professional, 2001.
5. Francis.D. Ching & Corky Bingelli, Interior Design Illustrated, 2nd edition, Wiley publishers, 2004.
6. Julius Panero & Martin Zelnick, Human Dimension & Interior Space : A source book of Design Reference standards, Watson – Guptill, 1979. Karlen
7. Barner, R.M., (1980), Motion and Time Study, Design and Measurement of work, John Wiley, New York.
8. Borgert, E. (1982) Housecraft – Principles and Practices, Issac Pitman, London.
9. Chaffin, D.B. and Andersson, G.B.J. (1984) Occupational Biomechanics, John Wiley, New York.
10. Cromwell, L. Weibell, F.J. and Pfeirffer, E.A. (1991) Biomedical Instrumentation and Measurements, Prentice Hall, New Delhi
11. Pranav Bhatt 'Fundamentals of Art and Design'

SUBJECT TITLE : Workshop –II (On Job Training)

SUBJECT CODE : BVCID1014

Contents

- To deal with all types of materials-like Metal, Plaster of Paris, Glass, Acrylic etc..
- Site training and hands on experience.
- Preparation of Block models, Preliminary models & finish models for Interior Design.
- The subject should be effectively linked with Interior design and more stress will be laid to onsite training and hands on experience.
- Preparation of small objects using various materials like Metals or plaster of paris.

Evaluation: