

SYLLABUS

FOR

**Bachelor of Vocational Degree,
Advance Diploma and Diploma
(Interior Designing)**

Under

UGC's National Skill Qualification Framework
(NSQF)

At

PDEA's
Prof. Ramkrishna More Arts, Commerce College
Akurdi, Pune (Maharashtra)

Affiliated

To

University of Pune.

YEAR 2018-2019

Proposed subjects / papers in the Skill component and General Education component in each of the three years.

COURSE STRUCTURE

Year 1 (Diploma)			
Semester I (Credits 30)			
S. No.	Subject Code	Subject Name	Credits
1	ID 111	Basic Design Theory - I	4
2	ID 112	Construction Tools & Materials - I	4
3	ID 113	History of Interior Design - I	4
4	ID 114	Business Communication Skills	2
5	ID 115	Interior Design Studio-I	4
6	ID 116	Construction Studio-I	4
7	ID 117	Interior Design Graphics I	4
8	ID 118	Interior Services I	4

Semester II (Credits 30)			
S. No.	Subject Code	Subject Name	Credits
1	ID 121	Basic Design Theory II	4
2	ID 122	Construction Tools & Materials II	4
3	ID 123	History of Interior Design II	4
4	ID 124	Computer Skills	2
5	ID 125	Interior Design Studio - II	4
6	ID 126	Construction Studio - II	4
7	ID 127	Interior Design Graphics - II	4
8	ID 128	Interior Services - II	4

Year 2 (Advance Diploma)			
Semester III (Credits 30)			
Sr No	Code	Name of Subject	Total Credit
1	ID-231	Environmental Studies 1	4
2	ID-232	Tools & Materials 3	4
3	ID-233	Humanities & Management 1	4
4	ID-234	Computer	2
5	ID-235	Interior Design Studio 3	4
6	ID-236	Construction 3	4
7	ID-237	Interior Design Graphics 3	4
8	ID-238	Services 3	4

Semester IV (Credits 30)			
Sr No	Code	Name of Subject	Total Credit

1	ID-241	Landscape 1	4
2	ID-242	Tools & Materials 4	4
3	ID-243	Humanities & Management 2	4
4	ID-244	Elective	2
5	ID-245	Interior Design Studio 4	4
6	ID-246	Construction 4	4
7	ID-247	Interior Design Graphics 4	4
8	ID-248	Services 4	4

Year 3 (Degree)

Semester V (Credits 30)

Sr No	Code	Name of Subject	Total Credit
1	ID-351	Elective	4
2	ID-352	Quantity and Estimation	4
3	ID-353	Professional Practice	4
4	ID-354	Case/Literature study	2
5	ID-355	Interior Design Studio	4
6	ID-356	Working Drawing	4
7	ID-357	Interior Design Dissertation	4
8	ID-358	Advance Services 5	4

Semester VI (Credits 30)

Sr No	Code	Name of Subject	Total Credit
1	ID-361	Internship (16-18 weeks)	30

GUIDELINES FOR INTRODUCTION OF BACHELOR OF VOCATION (B.VOC.) PROGRAMME IN UNIVERSITIES AND COLLEGES UNDER THE NATIONAL SKILLS QUALIFICATIONS FRAMEWORK (NSQF)

1. Introduction

It has been a long felt necessity to align higher education with the emerging needs of the economy so as to ensure that the graduates of higher education system have adequate knowledge and skills for employment and entrepreneurship. The higher education system has to incorporate the requirements of various industries in its curriculum, in an innovative and flexible manner while developing a holistic and well groomed graduate.

Ministry of HRD, Government of India had issued an Executive Order in September 2011 for National Vocational Education Qualification Framework (NVEQF). Subsequently, Ministry of Finance, in pursuance of the decision of Cabinet Committee on Skill Development in its meeting held on 19th December, 2013, has issued a notification for National Skills Qualifications Framework (NSQF) which supersedes NVEQF.

Under the National Skills Development Corporation, many Sector Skill Councils representing respective industries have/are being established. One of the mandates of Sector Skill Councils is to develop National Occupational Standards (NOSs) for various job roles in their respective industries. It is important to embed the competencies required for specific job roles in the higher education system for creating employable graduates.

The University Grants Commission (UGC) has launched a scheme on skills development based higher education as part of college/university education, leading to Bachelor of Vocation (B.Voc.) Degree with multiple exits such as Diploma/Advanced Diploma under the NSQF. The B.Voc. programme is focused on universities and colleges providing undergraduate studies which would also incorporate specific job roles and their NOSs alongwith broad based general education. This would enable the graduates completing B.Voc. to make a meaningful participation in accelerating India's economy by gaining appropriate employment, becoming entrepreneurs and creating appropriate knowledge.

2. Objectives

- 2.1** To provide judicious mix of skills relating to a profession and appropriate content of General Education.
- 2.2** To ensure that the students have adequate knowledge and skills, so that they are work ready at each exit point of the programme.
- 2.3** To provide flexibility to the students by means of pre-defined entry and multiple exit points.
- 2.4** To integrate NSQF within the undergraduate level of higher education in order to enhance employability of the graduates and meet industry requirements. Such graduates apart from meeting the needs of local and national industry are also expected to be equipped to become part of the global workforce.
- 2.5** To provide vertical mobility to students coming out of 10+2 with vocational subjects.

3. Levels of Awards

The certification levels will lead to Diploma/Advanced Diploma/B. Voc. Degree in one or more vocational areas and will be offered under the aegis of the University.

Award	Duration	Corresponding NSQF level
Diploma	1 Year	5
Advanced Diploma	2 Years	6
B.Voc. Degree	3 Years	7

4. Eligibility /Target

All universities and colleges included under Sections 2(f) and 12(B) of the UGC Act, 1956 and receiving plan grant from the UGC are eligible for UGC financial assistance under the scheme.

5. Eligibility for admission in B.Voc.

The eligibility condition for admission to B.Voc.programme shall be 10+2 or equivalent, in any stream.

6. Curriculum

The curriculum in each of the years of the programme would be a suitable mix of general education and skill development components. Curriculum details should be worked before introduction of the courses.

7. Guidelines for credit calculations

7.1 This section contains credit framework guidelines. The university/college should use these guidelines or adapt them.

7.2 The following formula should be used for conversion of time into credit hours.

- a) One Credit would mean equivalent of 15 periods of 60 minutes each, for theory, workshops/labs and tutorials;
- b) For internship/field work, the credit weightage for equivalent hours shall be 50% of that for lectures/workshops;
- c) For self-learning, based on e-content or otherwise, the credit weightage for equivalent hours of study should be 50% or less of that for lectures/workshops.

7.3 The suggested credits for each of the years are as follows:

NSQF Level	Skill Component Credits	General Education Credits	Normal calendar duration	Exit Points / Awards
Year 3	36	24	Six Semesters	B.Voc.
Year 2	36	24	Four semesters	Advanced Diploma
Year 1	36	24	Two semesters	Diploma
TOTAL	108	72		

8. Examination and Assessment

- 8.1. The assessment for the general education component would be done by the university as per their prevailing standards and procedures.
- 8.2. The assessment for the skill development components would necessarily focus on practical demonstrations of the skills acquired.

The university has to necessarily establish a credit based assessment and evaluation system for the B.Voc. programme.

Syllabus
For
B.Voc. (Interior Designing)
Three Year degree Program

Semester I

ID 231. Basic Design Theory-1		04credits 60 Hours
<i>.OBJECTIVES</i>		
Basic design defines the base of design aspects, in terms of design elements and principles that are generically applicable to any design stream including interior design. The subject aims at developing observational and creative skills that would enhance the visual perception of students and evolve aesthetic sensitivity.		
1	Unit I Elements of Composition 1.1 Study of Point, Lines, Planes, Shapes, Material, Texture, Colour, Light,etc	15 Hrs
2	Unit II Principles of Composition 2.1 Alignment, Repetition, Pattern, Rhythm, Balance, Hierarchy, Focus, Axis, Emphasis	20 Hrs
3	Unit III Colour 3.1 Basic Terminology: Hue, tints and shades, value, intensity chroma 3.2 Theories of colour, colour wheel showing primary, secondary, intermediate, tertiary and quaternary colours 3.3 Colour harmony, colour contrast in relation to interior planning 3.4 Psychological study of colour: 3.5 Psychological effect of different colours in interior spaces viz. schools, hospitals offices, residential spaces , commercial buildings . 3.6 Effect of light on colour 3.7 Effect of pattern on colour 3.8 Effect of texture on colour 3.9 Effect of colour on another colours	25 Hrs

ASSIGNMENTS

1	Free hand sketching of lines
2	Hand drawn sheets on organic and inorganic composition
3	Hand drawn sheets on elements of design
4	Hand drawn sheets on principles of design

5	Hand drawn sheets on colour wheel
6	Hand drawn sheets on texture
7	Hand drawn sheets on furniture design

REFERENCE:

1. Ching, Francis D.K. Architecture Form, space, and Order, 2nd ed. Van Nostrand Reinhold, New York, 1996.
2. Hanks, A.David. Decorative Designs of Frank Lloyd Wright, Dover Publications, Inc. New York, 1999.
3. Helper, E.Donald, Wallach, I.Paul. Architecture Drafting and Design, 3rd ed. McGraw-Hill Book Company, New York, 1977.
4. John.F. Pile, Color in Interior Design, Mc-Graw Hill professional, 1st edition, 1997
5. Johannes Itten, The Art of color, John Wiley & Sons; Revised edition, 1997
6. Jonathan Pore, Interior Color by Design, Volume 2: A design tool for Home owners, Designers and Architects, Rockport publishers, 2005.
7. Ethel Rompilla, Color for Interior Design, Harry N. Abrams, 2005.
8. Itten, Johannes. Design and Form: The basic course at the Bauhaus, Thames and Hudson Ltd., London 1997.
9. Krier, Rob. Architectural Composition, Academy Editions, London, 1988.
10. Meiss, pierre Von. Elements of Architecture: Form to place, E and FN Spon, London, 1992.
11. Pipes, Alan. Drawing for 3-Dimensional Design. Thames and Hudson Ltd., London, 1990.
12. Smithies, K.W. Principles of Design in Architecture. Chapman and Hall, 1983.
13. Wucius, Wong. Principles of two Dimensional Design. Van Nostrand Reinhold 1972.
14. Thinking Design By Prof S Balam
15. Visual Thinking by Frank M. Young
16. Elements of Design: Rowena Reed Kostellow and the Structure of Visual Relationships Hannah G.G, Princeton Architectural Press, NY, USA
17. How Designers think: the design process demystified by Lawson B., Architectural Press, Oxford
18. Design Methods by Jones C. J., John Willey and Sons, Inc.

ID 112. Construction Tools & Materials I**04 credits 60 Hours****OBJECTIVES**

• To give an overview of the basic materials those are used in Interior and Architecture with reference to the material properties, feasibility, availability, durability and sustenance to climatic conditions.

1	Unit I Natural stones 1.1 Types of natural stones 1.2 Properties of natural stones 1.3 Use of stones in interior design 1.4 Maintenance of stonework	10Hrs
2	Unit II Bricks 2.1 Manufacture of Bricks 2.2 Characteristics of brick 2.3 Terminology 2.4 Types of brick 2.5 Clay bricks 2.6 Calcium silicate bricks	10Hrs
3	Unit III Cement concrete 3.1 Appearance 3.2 Manufacture of Concrete 3.3 Properties of cement 3.4 Application in Interiors	10Hrs
4	Unit IV Ceramics 4.1 Introduction 4.2 Types of ceramics 4.3 Fire clays and shales 4.4 Terracotta 4.5 Stoneware 4.6 Earthenware 4.7 Vitreous china 4.8 Porcelain 4.9 Properties of ceramics 4.10 Use of ceramics in Interiors	10Hrs
5	Unit V Timber 5.1 Hardwoods and softwoods 5.2 Nomenclature of timbers 5.3 Anatomy of timber 5.4 Natural defects 5.5 Properties of timbers	10Hrs

	5.6 Utilization of timber 5.7 Deterioration of timber 5.8 Preservation of timber 5.9 Chemical composition of wood	
6	Unit VI Glass 6.1 Manufacture 6.2 Properties of glass 6.3 Size, design and availability of glass 6.4 Types of glass and product 6.5 Application of glass	10Hrs
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.		

ID 113. History of Interior Design I**04 credits 60 Hours****OBJECTIVES**

- To create awareness of History as an aid to design process.

1	Unit I Introduction 1.1 Introduction to furniture history. 1.2 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.	6Hrs
2	Unit II Introduction to furniture terminology 2.1 Introduction to furniture terminology based on methods of joinery techniques 2.2 Parquetry, marquetry gilding, turning, pierced and chip carving, ormolu mounts.	9Hrs
3	Unit III Furniture history of Egypt 3.1 Ancient civilization, art, architecture of Egypt. 3.2 Furniture preserved in ancient pyramids.	9Hrs
4	Unit IV Furniture history of Greek & Romans 4.1 Furniture developed by Greeks and Romans by 3rd century A.D. 4.2 Ancient classical orders developed by them and various methods to overcome optical illusion.	9Hrs
5	Unit V Medieval era in Europe 5.1 Utilitarian furniture developed from Romanesque till Gothic times. 5.2 Gothic cathedrals preserving art, manuscripts, furniture, paintings, sculptures, stain glass. 5.3 Beginning of Renaissance-second golden era in Europe, age of discovery. 5.4 Renaissance furniture of Italy and France.	9Hrs
6	Unit VI 17th century 6.1 Baroque 6.2 Rococo furniture	9Hrs
7	Unit VII 18th century 7.1 Neoclassical period 7.1 Regency Period	9Hrs

REFERENCES

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.

ID 114. Business Communication Skills-I**02 credits 30 Hours****OBJECTIVES**

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.

1	Unit I Introduction: What is Communication Process of communication Types of communication - Verbal and non-verbal communication	5 Hrs
2	Unit II Non-verbal communication Tips and tricks for effective communication	5 Hrs
3	Unit III Presentation skills: Kinds of Presentation Structuring the content Visual Aids The language of presentation Making a presentation	5 Hrs
4	Unit IV An introduction to soft skills Leadership Skills Teamwork Skills Time Management Goal Setting	5 Hrs
5	Unit V Personal grooming and confidence building	5 Hrs
6	Unit VI Speeches, debates and group discussions	5 Hrs

REFERENCES

1. LiteraryPinnacles, Orient Blackswan, Pvt Ltd.
2. Lorven: Enrich your communication in English

ID 115. Interior Design Studio I**04 credits 60 Hours****.OBJECTIVES**

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 (Living/ Dining not less than 25.00 Sq.mts& Kitchen not less than 12.00 Sq.mts.) of an apartment and are expected to present the study through detailed measured drawings and sketches

1	Unit I Introduction to parameters of design, anthropometrics and ergonomics, human activity and use of interior spaces and furniture.	15Hrs
2	Unit II Analysis of design to perceive elements which define the character of the environment.	15Hrs
3	Unit III Analysis of design process.	15Hrs
4	Unit IV Concept formation for design.	15Hrs

ASSIGNMENTS

1	Hand drawn sheets on Anthropometrics
2	Case study sheets on Kitchen
3	Case study sheets on Living Room
4	Case study sheets on Toilets
5	Sheets on Designing of a studio apartment

REFERENCE:

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 Pfeiffer, E.A. (1991) Biomedical Instrumentation and

Measurements, Prentice Hall, New Delhi

11. Pranav Bhatt 'Fundamentals of Art and Design'

ID 116. Construction Studio I**04 credits 60 Hours****OBJECTIVES**

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

1	Unit I Structural Components Introduction to structural components and elements of built structure from foundation to roof.	12Hrs
2	Unit II 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.	12Hrs
3	Unit III Joinery Introduction to joinery and joints, limitations and applications.	12Hrs
4	Unit IV Openings Doors, windows, ventilators with focus on different modes of operation and their jamb linings. Types of Lintels and Arches based on structure and materials. Structural glazing	12Hrs
5	Unit V Doors & Windows Types based on mode of operation, material and positioning	12Hrs

ASSIGNMENTS

1	Scaled drawing on bricks	6 Hrs
2	Scaled drawing on bonds (English & Flemish Bonds)	6 Hrs
3	Scaled drawing on joints	6 Hrs
4	Scaled drawing on Door and window openings	18 Hrs
5	Scaled drawing on types of arches	12 Hrs

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

ID 117. Interior Design Graphics-I**04credits 60 Hours****OBJECTIVES**

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

1	Unit I Introduction to drawing Instruments 1.1 Introduction to various drawing instruments 1.2 Methods of employing instruments for technical drawing and sketching.	12Hrs
2	Unit II Introduction to graphic language and its components 2.1 Line types: meaning and application 2.2 Architectural Lettering and dimensioning techniques 2.3 Architectural annotations and conventions including representation of various building materials and building components 2.4 Graphic scales and their application	12Hrs
3	Unit III Plane and Solid geometry 3.1 Introduction to graphical construction of various plane geometrical shapes. 3.2 Introduction to various projection systems used in Architectural drawing 3.3 Orthographic and Isometric projections to draw and represent various three dimensional geometrical objects/forms including Section/s.	12Hrs
4	Unit IV Scale Drawing 4.1 Scale drawing (plan/s section/s and elevation/s)	12Hrs
5	Unit V Isometric and axonometric projections.	12Hrs

ASSIGNMENTS

1	Scaled Drawing on types of lines
2	Drawing on lettering
3	Drawing plan, elevation & section using scale
4	Scaled Drawings on orthographic projections
5	Scaled Drawing on isometric views

REFERENCE:

1. Ahmed Kasu, Interior Design, TWAIN 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
11. Measurements, Prentice Hall, New Delhi
12. Pranav Bhatt 'Fundamentals of Art and Design'

ID 118. Interior Services-I**04 credits 60 Hours****OBJECTIVES**

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.

1	Unit I 1.1 Cold and hot water distribution systems, 1.2 Types of water supply pipes and joints 1.3 Sanitary fittings& fixtures.	12 Hrs
2	Unit II 2.1 Soil and waste water disposal systems, 2.2 Types of sanitary pipes and joints.	12 Hrs
3	Unit III 3.1 Plumbing works for Kitchens, toilets, baths, washing machines, dishwasher, refrigerator, loft tanks etc.	12Hrs
4	Unit IV Detail for bath Tubs, Rain Shower, Shower system, Jacuzzis.	12Hrs
5	Unit V Distribution and disposal layout.	12Hrs

ASSIGNMENTS

1	Hand drawn sheets on types of pipes joints
2	Hand drawn sheets on Sanitary fittings& fixtures for toilet and bathroom
3	Hand drawn sheets on Sanitary fittings& fixtures for Kitchen
4	Scaled drawings on Plumbing works for Kitchens
5	Scaled drawings on Plumbing works for toilets
6	Scaled drawings on Plumbing works for baths, washing machines, dishwasher, refrigerator, loft tanks etc
7	Scaled drawings on Detail for bath Tubs, Rain Shower, Shower system, Jacuzzis.
8	Scaled drawings on Distribution and disposal layout

REFERENCE

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 and sanitary Engineering, publishing house, Roorkee.
4. Pratap R.M (1988) Interior Design Principles and practice, Standard publishers distribution, Delhi.

5. F. Hall, Plumbing technology, British Library Cataloguing in Publication Data
6. ShubhangiBhide, Building services & equipments, Rudra offset
7. H. L. Ohri, Water Supply and Sanitary Engineering, Charotar Publishing House
8. C. Panchdhari, Water Supply and sanitary installations, Bureau of Indian Standards, N.Delhi
9. Sandeep Mantri, Practical Bldg. Const. & its mgmt., Mantriproj. & consultancy Pvt.ltd

Semester II

ID 121. Basic Design Theory-2		04credits 60 Hours
<i>OBJECTIVES</i>		
Evolving further from course content of semester 1, the focus of study shall be based on application of the observational and creative skills to Design and planning process.		
1	Unit I Planning Principles 1.1 Interplay of planning principles like balance, harmony, rhythm etc	20Hrs
2	Unit II Anthropometry and Ergonomics 2.1 Study and application of anthropometry and ergonomics as a tool to understand aesthetic and functional concepts of design.	20Hrs
3	Unit III Concept and Design Theme 3.1 Concepts of evolving technology and space modulation 3.2 History, styling and theme based designs	20Hrs

Assignments

1	Sketch drawings on planning principles
2	Study model in various materials
3	Journals, reports, power point presentations etc.

REFERENCE:

1. Ching, Francis D.K. Architecture Form, space, and Order, 2nd ed. Van Nostrand Reinhold, New York, 1996.
2. Hanks, A.David. Decorative Designs of Frank Lloyd Wright, Dover Publications, Inc. New York, 1999.
3. Helper, E.Donald, Wallach, I.Paul. Architecture Drafting and Design, 3rd ed. McGraw-Hill Book Company, New York, 1977.
4. John.F. Pile, Color in Interior Design, Mc-Graw Hill professional, 1st edition, 1997
5. Johannes Itten, The Art of color, John Wiley & Sons; Revised edition, 1997
6. Jonathan Pore, Interior Color by Design, Volume 2: A design tool for Home owners, Designers and Architects, Rockport publishers, 2005.
7. Ethel Rompilla, Color for Interior Design, Harry N. Abrams, 2005.
8. Itten, Johannes. Design and Form: The basic course at the Bauhaus, Thames and Hudson Ltd., London 1997.
9. Krier, Rob. Architectural Composition, Academy Editions, London, 1988.
10. Meiss, pierre Von. Elements of Architecture: Form to place, E and FN Spon, London, 1992.

11. Pipes, Alan. Drawing for 3-Dimensional Design. Thames and Hudson Ltd., London, 1990.
12. Smithies, K.W. Principles of Design in Architecture. Chapman and Hall, 1983.
13. Wucius, Wong. Principles of two Dimensional Design. Van Nostrand Reinhold 1972.

ID 122. Construction Tools & Materials II**04 credits 60 Hours****OBJECTIVES**

To give an overview of the basic materials those are used in Interior and Architecture with reference to the material properties, feasibility, availability, durability and sustenance to climatic conditions.

1	Unit I Stones 1.5 Artificial stones, semi-precious stones 1.6 Types of stones 1.7 Properties of stones 1.8 Use of stones in interior design	12Hrs
2	Unit II Paints, Varnishes, Polishes, Distempers etc. 2.1 Wall and furniture finishes like paints 2.2 Water based paints 2.3 Dry distempers 2.4 Plastic emulsion distempers 2.5 Cement paints	12Hrs
3	Unit III Metals 3.1 Properties of metals 3.2 Ferrous Metals 3.3 Finishes on ferrous metals 3.4 Non-ferrous metals 3.5 Finishes on non-ferrous metals	12Hrs
4	Unit IV Plastics and Rubbers 4.1 Plastics 4.2 Properties of Plastics 4.3 Costs 4.4 Forming Methods 4.5 Joining 4.6 Thermoplastics 4.7 Thermosetting plastics	12Hrs
5	Unit V Floor coverings and furnishings 5.1 Floor Coverings - carpet and Rugs: - Hand made carpets - Handcuffed carpets - Machine made carpets - Cut pile - Uncut pile 5.2 Importance of carpets and rugs in interior decor - Functional values - Decorative values 5.3 Resilient floor coverings, their importance and selection for decoration 5.4 Western carpets and their types 5.5 General specification - Sizes and modes of measurements - Technical specifications - Traditional sizes - Standard sizes, rolls 5.6 Care and maintenance of carpets and rugs	12Hrs

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.

ID 123. History of Interior Design II**04 credits 60 Hours****OBJECTIVES**

- To create awareness of History as an aid to design process.

1	Unit I 16th to 18th century Furniture 1.1 English furniture from 16th to 18th century 1.2 Tudor, Stuart, Jacobean 1.3 Restoration period 1.4 Queen Ann period 1.5 Gregorian period, Chippendale, Sheraton.	15Hrs
2	Unit II Beginning of 19th century 2.1 Industrialization	15Hrs
3	Unit III Movements in design. 3.1 Victorian Era in England 3.2 Art and Craft movement in design 3.3 Art Nouveau movement in art and furniture 3.4 Art movements before and after world wars 3.5 Cubism of Picasso, De-stijl movement 3.6 Art Deco movement	15Hrs
4	Unit IV Indian and western furniture 4.1 Oriental furniture and how it is different from western counterparts. 4.2 Furniture of Japan and China. 4.3 Indian furniture, traditional and colonial.	15Hrs

REFERENCES

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. Giedion Sigfried, Space, Time and Architecture: The growth of a new tradition, 4th ed. Harvard University Press, Cambridge, 1962.
5. Tadjell Cristopher, The History of Architecture in India: From the dawn of civilization to the End of the Raj , Om Book Service, New Delhi, 1990.
6. Rowl Benjamin. Art and Architecture of India.

ID 124. Computer Skills**02 credits 30 Hours****OBJECTIVES**

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

1	Given a PC, name its various components and list their functions.	
2	Identification of various parts of a computer and peripherals, Practice in installing a computer system by giving connection Internet and its Applications	6 Hrs
3	MICROSOFT OFFICE MS-Word MS-Excel MS PowerPoint	6 Hrs
4	Introduction to 2-D CAD Drawing Commands: Line . Poly line/Double line. Arc . Ellipse . Polygon . Rectangle . Circle . Hatch . Layer and its application Modifying an Existing Drawing Dimensioning and Text Modifying an Existing Drawing: Redraw and regen all. Regen auto. Undo Redo/loops . Trim . Move . Offset . Rotate, Array . Stretch . Divide, Chamfer . Erase and Break . Copy, multiple copy . Mirror. Dimensioning and Text Dimension type, style, units . Dimension utilities and variables .Dimensioning of different elements like (Horizontal, vertical, inclined, Arc. Circle, Radius, diameter), continuous dimensioning etc. Editing dimension text and updating (adding new text and editing existing text). Text style font types, height, width etc. Text commands like M-text and D-text	18 Hrs

REFERENCE:

1. Fundamentals of Computer by V .Rajaraman; Prentice Hall of India Pvt. Ltd., New Delhi
2. Computers Today by SK Basandara, Galgotia Publication Pvt ltd. Daryaganj, New Delhi.
3. MS-Office 2000 for Everyone by Sanjay Saxena; Vikas Publishing House Pvt. Ltd., New Delhi
4. Internet for Every One by Alexis Leon and Mathews Leon; Vikas Publishing House Pvt. Ltd., Jungpura, New Delhi
5. A First Course in Computer by Sanjay Saxena; Vikas Publishing House Pvt. Ltd., Jungpura, New Delhi
6. Mastering Windows 95, BPB Publication, New Delhi
7. Computer Fundamentals by PK Sinha; BPB Publication, New Delhi
8. Fundamentals of Information Technology by Leon and Leon; Vikas Publishing House Pvt. Ltd., Jungpura, New Delhi
9. On Your Marks - Net...Set...Go... Surviving in an e-world by Anushka Wirasinha, Prentice Hall of India Pvt. Ltd., New Delhi
10. Learning MS Office XP by Ramesh Bangia, Khanna Book Publishing Co. (P) Ltd., New Delhi.
11. Fundamentals of Information Technology by Vipin Arora, Eagle Parkashan, Jalandhar
12. AutoCAD Manual
- 13 IntelliCAD Manual
14. AutoCAD Bible Series by Ellen Finkelstein

ID 125. Interior Design Studio II**04 credits 60 Hours****OBJECTIVES**

In this semester the learner is expected to enhance their skills by application of design concept and/or theme to residential interior space and small retail space by understanding the usage of basic materials and construction.

1	Designing a medium size residential spaces (Master Bedroom not less than 18.00 sq.mts with Attached Toilet not less than 5.00 sq.mts & Childrens Bedroom not less than 18.00 sq.mts).	30Hrs
2	Study and application of anthropometry, ergonomics, design principles and components related to retail spaces. The design exercise may include small retail spaces such as Garment Boutique, mobile stores, Accessories store, small Café etc. (not exceeding 30.00 sq.mts.)	30Hrs

Assignments

1	Literature and Case studies, visit reports, power point presentations ,
2	Sketches, scaled drawings, study models in various materials
3	Design portfolio consisting of Project Brief, Theme Sheet, Measurement Plan/, Furniture Layout Plan/ Flooring Layout/ Reflected Ceiling Layout/ Basic Electrical Layout, Sectional Elevations.

REFERENCES

1. Karlen Mark, Space planning Basics, Van Nostrand Reinhold, New York, 1992.
2. Joseph D Chiara, Julius Panero, & Martin Zelnick, Time Saver standards for Interior Design & space planning, 2nd edition, Mc-Graw Hill professional, 2001.
3. Francis.D. Ching & Corky Bingelli, Interior Design Illustrated, 2nd edition, Wiley publishers, 2004.
4. Julius Panero & Martin Zelnick, Human Dimension & Interior Space : A source book of Design Reference standards, Watson – Guptill, 1979.
5. Karlen Mark, Kate Ruggeri & Peter Hahn, Space Planning Basics, Wiley publishers, 2003.

ID 126. Construction Studio II**04credits 60 Hours****OBJECTIVES**

To equip the learner with various systems of partitioning and paneling with appropriate means of construction, assembly and joinery through detailed working drawing and to make student aware of future trends in furniture design.

1	Unit I Partition Systems 1.1 Wooden framed fixed partition with single and double skin 1.2 Aluminium framed partition 1.3 Dry Wall partition systems 1.4 Full glass partition with hardware	20Hrs
2	Unit II Wall cladding and paneling 2.1 Wet and dry wall cladding 2.2 Wall paneling	20Hrs
3	Unit III Modular Furniture 3.1 Introduction 3.2 Analyzing the need and criteria for selection 3.3 Materials used and construction details	20Hrs

Assignments

1	Scaled drawing on partition systems
2	Scaled drawing on cladding systems
3	Scaled drawing on paneling systems
4	Case study and market survey for Modular furniture
5	Power point presentation Market survey report on Modular Furniture

ID 127. Interior Design Graphics II**04credits 60 Hours****OBJECTIVES**

The learner will be introduced to the basic principles of perspectives and sciography and its application to the field of interior design and drawings.

1	Unit I Sciography of two dimensional objects in plan and elevation.	12 Hrs
2	Unit II Sciography of three dimensional objects in plan, elevation and views	12 Hrs
3	Unit III Basic terms, principles, types and techniques of perspective	12 Hrs
4	Unit IV One, two and three point perspective of simple interior elements (drafted and free hand)	12 Hrs
5	Unit V Presentation of interior views (drafted and free hand) with pencil and colour rendering	12 Hrs

Assignments

1	Scaled drawing on Sciography of two dimensional objects in plan and elevation
2	Scaled drawing on three dimensional objects in plan, elevation and views
3	Scaled drawing on One, two and three point perspective
4	Presentation of interior views (drafted and free hand) with pencil rendering
5	Presentation of interior views (drafted and free hand) with colour rendering

REFERENCE:

1. Ching, Francis D.K. Architecture Form, space, and Order, 2nd ed. Van Nostrand Reinhold, New York, 1996.
2. Hanks, A.David. Decorative Designs of Frank Lloyd Wright, Dover Publications, Inc. New York, 1999.
3. Helper, E.Donald, Wallach, I.Paul. Architecture Drafting and Design, 3rd ed. McGraw-Hill Book Company, New York, 1977.
4. John.F. Pile, Color in Interior Design, Mc-Graw Hill professional, Ist edition, 1997
5. Johannes Item, The Art of color, John Wiley & Sons; Revised edition, 1997
6. Jonathan Pore, Interior Color by Design, Volume 2: A design tool for Home owners, Designers and Architects, Rockport publishers, 2005.
7. Ethel Rompilla, Color for Interior Design, Harry N. Abrams, 2005.
8. Itten, Johannes. Design and Form: The basic course at the Bauhaus, Thames and

Hudson Ltd., London 1997.

9. Krier, Rob. Architectural Composition, Academy Editions, London, 1988.
10. Meiss, pierre Von. Elements of Architecture: Form to place, E and FN Spon, London, 1992.
11. Pipes, Alan. Drawing for 3-Dimensional Design. Thames and Hudson Ltd., London, 1990.
12. Smithies, K.W. Principles of Design in Architecture. Chapman and Hall, 1983.
13. Wucius, Wong. Principles of two Dimensional Design. Van Nostrand Reinhold 1972.

ID 128. Interior Services II**04 credits 60 Hours****OBJECTIVES**

Introduction to the principles of Electrification and lighting to enable learner design appropriate service layout.

1	Unit I Introduction 1.1 Introduction to electrical systems 1.2 Applicability of electrical systems to interior spaces.	12Hrs
2	Unit II Electrical systems 2.1 Types of Electrical Systems 2.2 Specification of electrical systems 2.3 Materials	12Hrs
3	Unit III Electrical Layouts 3.1 Learning electrical layouts 3.2 Symbols	12Hrs
4	Unit IV Fittings and fixtures 4.1 Types of fittings and fixtures 4.2 Types of switches 4.3 Residential lighting	12Hrs
5	Unit V Lighting automation 5.1 Introduction to automation in lighting industry	12Hrs

Assignments:

1	Drawing various Electrical Symbols
2	Drawing various electrical fittings and fixtures
3	Drawing electrical layout of a single rooms
4	Drawing electrical layout of residential building
5	Preparing electrical Specification
6	Case study on residential lighting
7	Seminar and power point presentation for various electrical fittings available in market

8	Market survey report
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REFERENCE:

12. Electrical wiring and contracting (vol. 1 to vol.4), London. The New era Publishing Company.
13. Dr Frith Abnwos and others, Electrical Engineering hand book.
14. William . J. Guinness, Mechanical and Electrical Systems for Buildings, New York : Mc Graw Hill.
15. Faber, Oscar and Kell, J.R. Heating and Air conditioning of Building. Architectural Press, surrey, 1945.
16. Prasad Manohar, Refrigeration and air-conditioning. 5th ed, New Age Intl. pub, New Delhi, 1996.