**KURUKSHETRA UNIVERSITY, KURUKSHETRA**

**SYLLABUS FOR**

**B.VOCATIONAL PROGRAMME**

**IN**

**INTERIOR DESIGNING**

**(SEMESTER – I)**

**w.e.f. 2016-17**

**SEMESTER – I**

**Qualifications Pack** – Not Available

**National Skills Qualifications Framework (NSQF) Level –** 4

**Sector -** Furniture and Fittings Skill Council

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Paper Code** | **Title of the Paper** | **Total Credits/ Semester** | | **Contact Hours/**  **Week** | | **Max. Marks** | | | |
| **Th.** | **Pr.** | **Th.** | **Pr.** | **Theory** | **Exam Duration** | **Practical** | **Exam Duration** |
| BVID – 101 | Introduction to Art & Design | 2 | 3 | 2 | 6 | 50 (40+10\*) | 3 hrs | 75 | 3 hrs |
| BVID – 102 | Design Drawings & Graphics - I | 3 | 4 | 3 | 8 | 75 (60+15\*) | 3 hrs | 100 | 3 hrs |
| BVID – 103 | History of Interior Design | 2 | - | 2 | - | 50 (40+10\*) | 3 hrs | - | - |
| BVID-104 | On Site Learning & Market Survey of Building  & Construction Materials  ***(Only Practical)*** | - | 2 | - | 4 | - | - | 50 (40+10\*) | 3 hrs |
| BVID – 105 | Workshop (Ceramics & Craft Items)  ***(Only Practical)*** | - | 2 | - | 4 | - | - | 50 (40+10\*) | 3 hrs |
| ***TOTAL*** | ***Skill Component*** | ***7*** | ***11*** | ***7*** | ***22*** | **175 (140 +35\*)** | ***-*** | **275 (255+20\*)** | ***-*** |
| BVG-101 \*\* | Computer Applications – I\*\*  ***(Only Practical)*** | - | 6 | - | 12 | - | - | 150 (120+30\*) | 3 hrs |
| BVG – 102 \*\* | Professional Skills-I \*\* | 3 | - | 3 | - | 75 (60+15\*) | 3 hrs | - | - |
| BVG - 103 \*\* | Writing, , Reading & Oral Communication Skills in English – I \*\* | 2 | 1 | 2 | 2 | 50 (40+10\*) | 3 hrs | 25 | 3 hrs |
| **TOTAL** | **General Education Component** | **5** | **7** | **5** | **14** | **125 (100+25\*)** | **-** | **175 (145+30\*)** | - |
| **GRAND TOTAL** | **Skill Component and General Education Component** | **12** | **18** | **12** | **36** | **300 (240+60\*)** | **-** | **450 (400+50\*)** | - |
|  | | | | | | **300+450 = 700** | | | - |

**KURUKSHETRA UNIVERSITY, KURUKSHETRA**

**SYLLABUS FOR**

**B.VOCATIONAL PROGRAMME IN INTERIOR DESIGNING (SEM – I)**

**w.e.f. 2016-17**

**Internal Assessment** **- For Theory Papers**, It will be Based on One Test/Seminar= 50 %, One Class Test =25 %, Attendance = 25% - For Practicals, It will be Based on One Seminar/ Test/Workshop/Project/ Training= 50 %, One Class Test =25 %, Attendance = 25%

**One Credit Point for Theory** = 1 Hour Contact Time / Week.

**One Credit Point for Practical/ Workshop** = 2 Hours Contact Time / Week.

**One Semester** = 14 to 15 Weeks.

**One Credit**= 25 Marks.,

**\*\* Papers in common with BVTFD**

**Credit based assessment and evaluation system for the B.voc programme in 1st semester shall be adopted in the phase manner w.e.f. the session 2016-17.**

**SEMESTER – I**

**BVID – 101: INTRODUCTION TO ART & DESIGN**

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To analyze various art forms and understand their application in interiors.
* To analyze the influences of social and cultural aspects on interior design.
* To understand the elements and principles of design and their applications in creating beautiful interiors.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

* Meaning and significance of art , factors affecting art forms (Geography, community, materials, individuality and appearance), developing skills for appreciation of art, evaluation of art objects – basic guidelines in evaluating art objects.
* Development of Art- A survey of history of art forms: pre historic times to present times: changing nature of art through time in terms of content, form and material.
* Exploration of Art Forms – Study of traditional and contemporary art forms – painting, sculpture, architecture, decorative arts, design arts, digital art.
* Relationship between art and design from earliest time. Study of famous and influential artists, craftsmen and people who pioneered innovations in their own fields and their influence on design and other fields e.g. Van Gogh, Dali, William Morris etc.

**UNIT – II**

* Design –Definition, purpose, types- universal designs, accessible designs,

design disabled.

* Elements of Design - Line and direction, form and shape, size, color, light, pattern, texture and space - application of elements to form designs.
* Principles of Design –Balance, rhythm, emphasis, harmony, proportion - meaning and application of design concepts in the interior and exterior houses and other commercial buildings.
* Various Elements of Society – Modernization and change in society, change in thought process and behavior patterns. Role of communication media in change patterns. Behavior patterns and its correlation to design elements. Perception of Indian value systems and assimilation of East & West.
* General understanding of interior design and integration with architecture. Role of Interior Designer in a building project. The changing role of Interior Designer, his/her relation with other consultants, contractors and client, technical knowledge and other skills required as inputs. Career options in Interior Design.
* Various subjects to be learnt by Interior Design students and their relevance to practice.

**PRACTICALS**

**M. Marks: 75**

**Exam Duration: 3 hrs**

* Practice making 2 dimensional compositions on paper using different medium and physical models using different materials.
* Application of elements/principles of art in the color scheme of any one room of your choice.
* Explain qualities of good visual designs through photographs, artworks etc.
* Apply design concepts in developing greeting cards/ saree borders /floor decorations/ carpets.
* Evaluate any one art object.
* Develop a motif suitable for window grill/ foot mat/ table mat / furnishing materials.

**REFERENCES**

* **Alan Barnard & Jonathan Spencer**-Encyclopedia of social and cultural anthropology, Taylor & Francis, 1996
* **Arnold Friedmann , Forrest Wilson, John F. Pile**- Interior Design, Elsevier Publishing Company, 3rd edition, 1982.
* **Charles. V.** Stanford, Studies in Indian society, Culture and Religion, South Asia Books, 1988.
* **Christine M. Piotrowski**, Becoming an Interior Designer, John Wiley and Sons, 2003.
* **Clifford Geertz,** The Interpretation of Cultures, Basic Books, 1977.
* **Fisher E. Robert**. Buddhist Art and Architecture. Thames and Hudson, London. 1993.
* **Ghosh. A Jain** **(Ed).** Art and Architecture Vol 1-3. Bharatiya Jnanpith. New Delhi.
* **Henry Wilson**, India: Decoration, Interiors, Design, Watson Guptill, First American Edition, 2001
* **Kumar Raj** (Ed) Essays on Indian Art and Architecture. Discovery pub., New Delhi, 2003
* **Michael Freeman**, India: Modern Art, Periplus Editions, 2005
* **Niggel Rapport**, Social and Cultural Anthropology: The Key Concepts, Routledge, 2000
* **Philip Carl Salzman**, Understanding Culture: An Introduction to Anthropological Theory, Waveland press, 2001.
* **Sunil Sethi, Angelika Taschen**, Indian Interiors, TASCHEN America Ltd; 25th ed. edition, 2009

**SEMESTER – I**

**BVID – 102: DESIGN DRAWINGS & GRAPHICS – I**

**M. Marks: 75**

**Theory Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To help the students to prepare drawings by using drafting tools and accessories.
* To enable the students to comprehend and visualize geometric forms, scale & proportions.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

* Introduction to drawing equipments, familiarization, use and handling.
* Introduction to Pencil Exercises – Knowledge about usage of different points of pencils, handling of pencils, practicing lines and tone building exercises; object drawings – natural geometric forms with emphasis on depth and dimension, detail & texture, sunlight & shadow.
* Drawing –Point and line, line types, line weights, straight and curvilinear lines, dimensioning, borders, title panels, tracing in pencil, ink, use of tracing cloth, free hand lettering and scaled lettering, sketching of different interior accessories & interior- exterior existing spaces & portfolio preparation.
* Architectural symbols, terminology and abbreviations used in architectural presentation.
* Architectural representation of landscape elements such as trees, indoor plants, planters, hedges, foliage, human figures in different postures, vehicles, street furniture etc. by using different media and techniques and their integration to presentation drawings.

**UNIT II**

* Measuring and Drawing to Scale – Understanding Scale –Metric and foot and inch, scales and construction of scales, simple objects, furniture, rooms, doors and windows etc. in plan , elevation and section etc., reduction and enlargement of drawings.
* Interiors and Furniture Sketching – Interior still life, perspectives, lighting & composition, textures and details, material expressions, individual pieces of furniture, elevations & plans etc using different media. Drawing from photographs.
* Building Geometry – Study of points, lines and planes leading to simple and complex solid geometrical forms. Orthographic projections of points, lines, first angle projections of planes and solids, sections of solids, development of surfaces of solids and intersections of solids. Use of geometry in buildings - isometric, axonometric, and oblique views; drawing geometrical forms with measurements.

**PRACTICALS**

**M. Marks: 100**

**Exam Duration: 3 hrs**

* Appropriate site visits.
* Drawing of simple plan, elevation and sections.
* Making of plans of any two of the following rooms of your own home:
* Bed room
* Drawing room
* Bath room
* Kitchen
* Architectural presentation through architectural symbols.
* Developing photographic portfolio from drawings.
* Developing architectural representation of landscape elements by using different media and techniques.
* Drafting of furniture objects with projections.

**REFERENCES**

* **Bhatt, N.D. and Panchal V.M.**Engineering Drawing: Plane and Solid Geometry, 42nd ed. Charotar Pub., Anand, 2000.
* **Bies, D.John**. Architectural Drafting: Structure and Environment Bobbs – Merril Educational Pub., Indianapolis.
* **Francis D.Ching,** Design Drawing, Wiley publishers.
* **Francis D. Ching** – Architectural Graphics , Wiley publishers, 2002.
* **Gill, P.S**. - Geometrical Drawing, 3rd ed. Dewan Suhil Kumar kataria, Ludhiana, 1986.
* **Ivo.D. Drpic**, Sketching and Rendering of Interior Space, Watson- Guptill, 1988.
* **Maureen, Mitton**- Interior Design Visual Presentation: A Guide to Graphics, Models and Presentation Techniques, 3rd edition, Wiley Publishers, 2007
* **Mogali Delgade ,Yanes and Ernest Redondo Dominquez**, Freehand drawing for Architects and Interior Designers, 2005 .
* **Moris, I.H-**Geometrical Drawing for Art Students.
* **Nelson, A. John. H.B**- Architectural and Civil Drafting, Van Nostrand Reinhold, New York, 1983.
* **Nichols, T.B.** and Keep, Norman. Geometry of Construction, 3rd ed. Cleaver – Hume Press Ltd., London, 1959.
* **Shah, M.G., Kale, C.M. and Patki,** S.Y. Building Drawing: with an integrated approach to built environment, 7th ed. Tata Mc Graw Hill Pub., Delhi, 2000.
* **Stephen Kliment**, Architectural Sketching and Rendering: Techniques for Designers and Artists, Watson Guptill, 1984.
* **Thoms, E.French**. Graphics Science and Design, New York: MC Graw Hill.

**SEMESTER – I**

**BVID – 103: HISTORY OF INTERIOR DESIGN**

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To understand the effect of design movements and various schools of thought on interior environment.
* To understand the historical progression of art and architecture in India and its application to formulate themes and concepts for contemporary designs.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

* Elements of style and determinants of Interior environment in Egypt, Mesopotamia, Babylonia, Chinese, Japan, Greece, Rome and Europe in Early Christian, Romanesque, Gothic periods.
* An overview of Victorian, Elizabethan, Cubism, Romanticism arts and crafts etc.
* Forces of industrialization in Europe, changes in social structure, production systems, changes in technology and its impact on the life styles, arts and crafts and interior environments.

**UNIT – II**

* Elements of style, interior environment, furniture etc. in Jammu and Kashmir, Southern India, Gujarat, Rajasthan, Himachal Pradesh , states of North eastern India, Maharashtra, Uttar Pradesh, Orissa etc.
* History of Modern Movement in Interior Design and Architecture – Developments of modern movements – various fields of design affecting interior ambiences directly – international modernism, regionalism and concerns with vernacular etc.
* Designers and their works with respect to interior architecture and interior elements of design. Contemporary expressions of styles and art forms.

**REFERENCES**

* **Elaine, Michael Dywer, Christopher Mackinnon, Norman** **A. J. Berisford Denby-** A History of Interior Design, Rhodec International, 1983.
* **Giedion Sigfried**- Space, Time and Architecture: The Growth of a New Tradition, 4th ed. Harvard University Press, Cambridge, 1962.
* **John F. Pile**- A History of Interior Design, 2nd edition, Laurence King Publishing, 2005.
* **Jeannie Ireland**- History of Interior Design, Air Child Publications, ed., 2009.
* **Rowl Bejamin**- Art and Architecture of India.
* **Tadgell Cristopher**- The History of Architecture in India: From the Dawn of Civilization to the End of the Raj , Om Book Service, New Delhi, 1990.

**SEMESTER-I**

**BVID-104: ON SITE LEARNING & MARKET SURVEY OF BUILDING & CONSTRUCTION MATERIALS *(ONLY PRACTICAL)***

**M. Marks: 50**

**Practical Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To impart knowledge to the students to identify various elements of buildings and interiors in drawings and real life situations and describe these using professional terminology.
* To enable the students to describe the basic terminology used by architects and interior designers.
* To acquire knowledge about nature and application of building materials/products used in interiors.
* To help the students to locate & identify regional vendors of basic interior products routinely used in interiors of homes and small shops.
* To provide practical understanding of traditional & contemporary interior elements & the nature of interior works and various products used in contemporary designs.
* To enable the students to appreciate functional aspects of spaces.

**COURSE CONTENTS**

**PRACTICALS**

* The students are required to do the exposure visits to various traditional and modern interiors, sites / industries and vendors to know the following things & present the field studies in the form of drawings/ sketches/ photographs/ short reports/ files:
* Nomenclature/ Terminology of various parts of building and interiors from foundation to roof, construction terminology and details.
* Introduction to Products and Materials Used in Interiors – Timber, Ply,

boards, laminates, tiles (Floor and walls), marble, sandstone, POP, paints and varnishes, ceramic products, upholstery/ curtains/carpets, draperies and its fixing types / types of venetian blinds, PVC floorings, rexine, plastic - thermal and sound insulation materials.

* Products and Materials Used in Construction of a House / Small Shop – Bricks (Clay and fly-ash), hollow blocks, stones, cement, lime, mortar, PVC and GI pipes, concrete, steel (Mild & stainless), aluminum.
* Partitions - Single skin and double skin, traditional and innovative with composite materials.
* False Ceiling- In POP& other innovative materials.
* Paneling & Cladding- Timber framed with building board paneling, stone for paneling and cladding, cladding with other innovative materials.
* Door- Rolling shutter, collapsible /sliding/folding/revolving/pivoted door, innovative door designs.
* Mezzanine- Timber flooring, composite materials.
* Staircase - Innovative composite material staircases for interior, types of stair cases.(Function wise), timber staircase in detail, décor treatments to R. C. C. staircase.
* Window – Glazed, paneled timber windows, Aluminum& others.
* Introduction of lift and escalators (Technology).

**REFERENCES**

* **BP Verma**- Civil Engineering Drawing & Housing Planning.
* **Gajanan.M.Sabnis**-Green Building with concrete-Suatainable Design & Construction
* **John Case, Lord Chilver, Carl T.F. Ross –** Civil Engineering for All- Strength of Materials & Structures.

**SEMESTER I**

**BVID – 105: WORKSHOP (CERAMICS & CRAFT ITEMS)**

***(ONLY PRACTICAL)***

**M. Marks: 50**

**Practical Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To enable the students to use the techniques of art in shaping and enrichment of different materials & to create art objects for interiors.

**COURSE CONTENTS**

**PRACTICALS**

* Ceramics – Definition, ornamentation on ceramics – earthenware, stoneware, chinaware, porcelain and terracotta. Site visit to ceramic product factory to learn about ceramic glazes, types of glazes, commercially sold ceramic pigments.
* Macrame/ decoupage/fabric painting/ glass painting/oil painting and collage.
* Basic solid shapes with decorations/ jali model/ painting/ flooring patterns/ wall paneling with suitable material of student’s choice.

**REFERENCES**

* **Joagium Chavarria**- The Big Book of Ceramics: A Guide to the History, Materials, Equipment and Techniques of Hand Building, Throwing, Molding, Kiln firing, and Glazing pottery and other ceramic objects. Watson – Guptil, 1994.
* **Magret Jacque**- The Asesthetic Experiences: An Anthropologist Looks at the Visual Art.
* **Maria Dolors Ros Frijola**- The Art and Craft of Ceramics: Techniques, Projects, Inspiration , Lark books, 2006 .
* **Susan Bruce**- The Art of Hand Built Ceramics, Crowood Press ,2000
* **Tapert, Annette, Swid Powell**- Objects by Architects, Rizzoli, New York, 1990.

**SEMESTER-I**

**BVG-101: COMPUTER APPLICATIONS-I\*\***

***(ONLY PRACTICAL)***

**M. Marks: 150**

**Practical Exam: 120**

**Int. Assessment: 30**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To enable the students to use the PC and the peripherals attached like printer, LCD, Scanner.
* To introduce the basic principles of computer hardware and software.
* To provide an understanding to browse the internet for information and sending /receiving e-mail.

**COURSE CONTENTS**

**PRACTICALS**

* Diagram of computer and its working & components, operating system, booting and installation, File management.
* Identify hard disk , floppy disk, laser printer, micro processors.
* Identify differences in hardware needs for software applications.
* **Paint –** Opening new file, saving a file, saving a file with different extensions like bmp, jpg, gif etc. Various Tools for drawing a picture/image, setting of attributes of a picture, reset a picture.
* **Word Processing**
* **Word Pad**- Starting and using word pad, type and edit document in word pad. Insert pictures in a document in word pad, format text in a word pad document, save and print a document file in word pad, starting and using paint, printing a drawing, clip-board, cut, copy and paste command.
* **Ms-Word-** Basics of Word Processing-Creating a new word document, opening an existing document, editing and saving a document, typing a text, deleting, inserting, replacing, editing text (copy, delete, more, etc), finding and replacing text, spell check feature/auto-correct feature, grammar facility, character formatting, page formatting. Document enhancement-adding borders and shading, addition headers and footers, alignment of titles and paragraphs, type and spell check documents, Justifying texts, bold, italics, underline, strike, double strike and coloring text, selecting font and font sizes, pictures, symbols, bullets, Line Spacing
* **MS Excel-** Worksheet basics: Opening and saving a workbook, Editing in a worksheet, Data entry in cells, entry of numbers, text and formulae moving data in a worksheet, moving around in a worksheet, selecting data range, using the interface (toolbars, menu), cell referencing – Absolute, mixed . Formatting and calculations – Fonts, Bullets, Format Painter, Font Styles, Auto-fill, efficient data display with data formatting (number and date), working with ranges, worksheet printing. Functions: Sum, Average, Max, Min, Count, If, Sumif, Countif, Product. Working with graphs and charts – adding/formatting text data with auto-format, creating embedded chart using chart wizard, sizing and moving parts, updating charts, changing chart types, creating separate chart sheets, editing titles, legends and gridlines, printing charts.
* **MS Power Point -**Opening and saving a Presentation, different views of a presentation, inserting numbers, headers/footers, picture and movie clip, formatting on slides.
* **MS Access-** Opening and saving a database file, entering records, query, designing a form, saving a form and retrieving from database.
* **Internet Broadcasting** - Opening and saving a page, elements of webpage, creating an e-mail account , downloading a file

**Teachers can decide on their own the list of student activities to promote the interest of students in use of computers and develop the competencies**

R**EFERENCES**

* **Glencoe-** Keyboarding with Computer Applications, Student Edition, Lessons 1-150 by McGraw-Hill (Hardcover - Jan 3, 2006).
* **Jack Hoggatt, Jon A. Shank, and Jerry W. Robinson** -Century 21 Computer Applications & Keyboarding (Hardcover - Mar 2, 2001).
* **Jack Hoggatt and Jon A. Shank-** Computer Applications and Keyboarding: Comprehensive, Lessons 1-150 (Hardcover - Jan 28, 2005).
* **Katherine Pinard**- Computer Concepts: Illustrated Essentials (Paperback - Aug 17, 2010).

**\*\* Paper in Common with BVTFD**

**SEMESTER - I**

**BVG – 102: PROFESSIONAL SKILLS-I\*\***

**M. Marks: 75**

**Theory Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory question.

**OBJECTIVE**

* To develop decision making, planning, organizing, customer centricity, problem solving, analytical and critical thinking skills in students.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

* **Decision Making-** Meaning, importance, steps of decision making. Decision making relating to particular design with respect to it being repeated or already being out, in responding to emergencies/ accidents in line with organization, responsibilities, using correct PPE and other safety gear while at the workplace, making changes in the design when reviewing with the client and/or with review team. Organization’s rule-based decision making process while creating designs, making changes in the proto sample.
* **Planning and Organizing**- Planning & organizing the design collections with respect to customer requirements and the forecast, the health and safety norms, the evacuation procedures with the supervisors, work area to keep it safe from hazards that cause physical ailments & work routine based on company procedure.
* **Customer Centricity**-Customer service oriented approach- developing designs, products , according to customer requirements & needs as well as some elements from the forecast; ways of managing relationships with customers with intent on satisfying its requirements for product quality, product quantity and product delivery; logically justifying the changes not been able to implement when reviewing the final sample with the client; health and safety norms as per the customer while designing a product in context of the dyes and chemicals to be used in the products.

**UNIT II**

* **Problem Solving**- Types of problems that occur during processing; types of problems with quality, identifying problems and resolving issues within limits of responsibility, reporting of problems outside area of responsibility to the appropriate person, the importance of taking action when problems are identified, ways of resolving problems within the work area in different situations, solving operational role related issues, referring anomalies to the supervisors, the importance of complying with written instructions, identifying the potential solutions to help rectify faults, maintaining inter-departmental relations.
* **Analytical Thinking**- Analyzing the customer requirements, trends and forecast before designing. Analyze samples with respect to the techpack developed. Analyze, evaluate and apply the information gathered from observation, experience, reasoning or communication with respect to health and safety to act efficiently.
* **Critical Thinking-** Critically evaluate product created in terms of its likeability, demand, functional and aesthetic behavior etc when it’ll be out in the market ; modifications done in the product after review , opinions on work in a detailed and constructive way.

**REFERENCES**

* [**Barun K. Mitra**](http://www.amazon.in/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=Barun+K.+Mitra&search-alias=stripbooks)**-** Personality Development and Soft Skills,    2011.
* Christine M. Piotrowski - Problem Solving and Critical Thinking for Designers.
* **Ken Watanabe-** Problem Solving 101: A simple book for smart people.
* [M. K. Pandey](http://www.amazon.in/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=M.+K.+Pandey&search-alias=stripbooks) - Analytical Reasoning, 2009.
* **Marion Debruyne**- Customer Innovation: Customer-centric Strategy for Enduring Growth
* **PDC Professional Publishing**- Customer Centric Product Definition.
* **Paul Brest, Linda Hamilton Krieger -** Problem Solving, Decision Making, and Professional Judgment.
* [**Vincent Granville**](http://www.amazon.in/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=Vincent+Granville&search-alias=stripbooks)- Developing Analytic Talent: Becoming a Data Scientist ,  2014.

# Wilkins, David- Critical Analysis Skills for Social Workers.

**\*\* Paper in Common with BVTFD.**

**SEMESTER – I**

**BVG – 103: WRITING, READING AND ORAL COMMUNICATION SKILLS IN ENGLISH-1**\*\*

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory question.

**OBJECTIVE**

* To train the students in writing, reading and oral communication skills in English.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

**Writing Standard Business Letters, Reports, E-mails** **relating to –**

* Customer requirements, product designs, proto sample development and specifications, evaluation of the proto sample, modifications being done in the proto samples, designs developed for future references.
* Health, safety and security related information; health and safety incidents/accidents that take place at work place; reporting work related risks/ problems ; methods of obtaining/ giving feedback related to performance & process for offering/ obtaining work related assistance .

**UNIT II**

**Read and Comprehend written instructions related to** –

* The organizational documents pertaining to rules and procedures.
* New design details.
* Manufacturing processes related to sampling.
* Safety issues and incorporating new ideas in design.
* Indicators in the machine and operating manuals, job cards, visual cards, memos, reports, techpacks & client’s specifications.

**PRACTICALS**

**M. Marks: 25**

**Duration of Exam: 3 Hrs**

**Oral Communication** **(Listening and Speaking Skills)** **relating to -**

* Seeking information from customers and other sources in order to understand trends and customer requirements.
* Communicating with the other concerned departments and providing detailed description of the requirements in case of any repetition.
* Seeking information from supervisors and other departments in case of any doubt, discussing task details, process schedules , latest approach for safety and security, importance of the health and safety with co-workers and supervisors, with the team.
* Equipments and signage & influencing the team members into following procedures.

**REFERENCES**

* **Bhatnagar Nitin**- Communicative English for Engineers and Professionals.
* **FK Publications**- Communication Skills in English.
* **Marian Barry-** Success International English Skills for Cambridge.

**\*\* Paper in Common with BVTFD**

**KURUKSHETRA UNIVERSITY, KURUKSHETRA**

**SYLLABUS FOR**

**B.VOCATIONAL PROGRAMME**

**IN**

**INTERIOR DESIGNING**

**(SEMESTER – II)**

**w.e.f. 2016-17**

**SEMESTER – II**

**Qualifications Pack** – Not Available

**National Skills Qualifications Framework (NSQF) Level -** 5

**Sector -** Furniture and Fittings Skill Council

**KURUKSHETRA UNIVERSITY, KURUKSHETRA**

**SYLLABUS FOR**

**B.VOCATIONAL PROGRAMME IN INTERIOR DESIGNING (SEM – II)**

**w.e.f. 2016-17**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Paper Code** | **Title of the Paper** | **Total Credits/ Semester** | | **Contact Hours/**  **Week** | | **Max. Marks** | | | |
| **Th.** | **Pr.** | **Th.** | **Pr.** | **Theory** | **Exam Duration** | **Practical** | **Exam Duration** |
| BVID – 206 | Design Drawings & Graphics – II | 3 | 3 | 3 | 6 | 75(60+15\*) | 3hrs | 75 | 3hrs |
| BVID – 207 | Introduction to Building Materials and Fundamentals of Structure-I | 2 | 2 | 2 | 4 | 50 (40+10\*) | 3hrs | 50 | 3hrs |
| BVID – 208 | Space Planning | 2 | 4 | 2 | 8 | 50 (40+10\*) | 3hrs | 100 | 3hrs |
| BVID-209 | Workshop (Ceramics, Mosaic, PaperMache**,** Wood, Glass)  ***(Only Practical)*** | - | 2 | - | 4 | - | - | 50 (40+10\*) | 3 hrs |
| ***Total*** | ***Skill Component*** | ***7*** | ***11*** | ***7*** | ***22*** | ***175 (140+35\*)*** | ***-*** | ***275 (265+10\*)*** | ***-*** |
| BVG ID– 204 | Computer Applications for Drawings & Graphics - II ***(Only Practical)*** | - | 4 | - | 8 |  | - | 100 (80+20\*) | 3 hrs |
| BVG-205 \*\*\* | Professional Skills-II | 3 | - | 3 | - | 75 (60+15\*) | 3 hrs | - | **-** |
| BVG - 206 \*\*\* | Health, Safety, Industrial And Organizational Compliance At Work Place  ***(Only Practical)*** | - | 2 | - | 4 | - | - | 50 (40+10\*) | 3hrs |
| BVG-207 \*\*\* | Writing, Reading & Oral Communication Skills in English-II | 2 | 1 | 2 | 2 | 50 (40+10\*) | 3 hrs | 25 | 3 hrs |
| ***ES – 68\*\*\**** | ***\*\*Environmental Science*** | ***-*** | ***-*** | ***-*** |  | ***75*** | ***3 hrs*** | ***25*** | ***3 hrs*** |
| ***TOTAL*** | ***General Education Component*** | ***5*** | ***7*** | ***5*** | ***14*** | ***125 (100+25\*)*** | ***-*** | ***175 (145+30\*)*** | **-** |
| **GRAND TOTAL** | **Skill Component and General Education Component** | **12** | **18** | **12** | **36** | **300 (240 +60\*)** | **-** | **450 (410+40\*)** | **-** |
| **300+450=750** | | |

\****Internal Assessment******- For Theory Papers****, It will be Based on One Test/Seminar= 50 %, One Class Test =25 %, Attendance = 25% - For Practicals, It will be Based on One Seminar/ Test/Workshop/Project/ Training= 50 %, One Class Test =25 %, Attendance = 25%*

***One Credit Point for Theory*** *= 1 Hour Contact Time / Week.*

***One Credit Point for Practical/ Workshop*** *= 2 Hours Contact Time / Week.*

***One Semester*** *= 14 to 15 Weeks.*

***One Credit****= 25 Marks.*

*\*\* Indicates that marks are not included in the grand total being a qualifying subject.*

*\*\*\* Papers in common with BVTFD*

**SEMESTER – II**

**BVID – 206: DESIGN DRAWINGS & GRAPHICS – II**

**M. Marks: 75**

**Theory Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To impart the techniques of rendering in different media and skills of three dimensional visualization and presentation.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

* Introduction to pen and brush exercises – Simple exercises of shapes and lines, lines and textures, pen lines, ruling with pen and brush, brush lines etc.
* Tones and Rendering – Tones in pen drawings, value scales, gray values, grading tones etc. Simple exercises of tonal values and textures with pen. Color study, monochrome and wash rendering etc.
* Simple and composite forms, shadows on horizontal, vertical planes and on their own surfaces. Study of shade and shadows of simple geometrical solids of various forms and groups of forms.

**UNIT – II**

* Perspective- Characteristics of perspective drawings, perspectives of simple geometric solids and spaces and complex geometries. Advanced examples in one point or parallel perspective, two point or angular perspective. Introduction to three point perspective. Interior perspectives of rooms.
* Rendering of the perspectives in different media. Integrating landscape elements, human figures, shadows, foreground etc in the perspectives.

**PRACTICALS**

**M. Marks: 75**

**Exam Duration: 3 hrs**

* Drawing from imagination –
* Diagramming
* Drawing composition
* Concept sketches
* Design development sketches
* Presentation sketches
* Presentation drawings
* Graphical presentations

**REFERENCES**

* **Atkin William W. Corbellent, Raniero and Firore. R**. Vincent-Pencil Techniques in Modern Design. 4th ed. Reinhold pub Corporation. New York, 1962.
* **B.C. Punmia** - Strength of Materials.
* **Bately, Claude**- Design Development of India Architecture.
* **Bellings, Lance Bowen**- Perspective Space and Design.
* **Burden, Ernest**-Architectural Delineation: A Photographic Approach to Presentation, 2nd ed, McGraw Hill, Inc., New York, 1982.
* **Conli, Claudius**- Drawings by Architects.
* **Ernest. R. Norling**- Perspective Made Easy, Dover publications, 1999.
* **Francis D.Ching**- Design Drawing, Wiley Publishers .
* **Ivo.D. Drpic**-Sketching and Rendering of Interior Space, Watson- Guptill, 1988.
* **John. F. Pile**- Perspective for Interior Designers, Watson – Guptill, 1989.
* **Joseph D, Amelio**- Perspective Drawing Hand book, Dover publications, 2004.
* **Maureen Mitton**- Interior Design Visual Presentation: A Guide To Graphics, Models And Presentation Techniques, 3rd edition, wiley publishers, 2007.
* **Mogali Delgade Yanes and Ernest Redondo Dominquez**- Freehand Drawing for Architects and Interior Designers, 2005.
* **Rangwala** - Engineering Materials.
* **Rowland J. Mainstone** -Development of Structural Form .
* **S.P.Bindra, S.P.Arora**- Building Construction.
* **Stephen Kliment**- Architectural Sketching and Rendering: Techniques for Designers and Artists, Watson Guptill, 1984.

**SEMESTER – II**

**BVID – 207: INTRODUCTION TO BUILDING MATERIALS AND FUNDAMENTALS OF STRUCTURE- I**

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVE**

* To impart knowledge on the various building materials, built elements & basic structural systems.

**COURSE CONTENTS**

**THEORY**

**UNIT- I**

* Masonry – Mud; bricks; building tiles - roof, floor and wall tiles; stones; clay; lime, sand, mortars, cement and aggregate; concrete; gypsum based plaster etc.
* Timber, cane, bamboo – characteristics of good timber, defects, applications of timber finishes in timber.
* 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- II**

* Paints– Protective coating paints. Types of paints , Composition, functions, preparation and application method, painting on different surfaces, defects in painting etc.
* Varnishes (Oil and spirit) – Various types and methods of application.
* Structural properties of basic materials like masonry, timber, concrete and steel etc.
* Introduction to Built Elements – Study of built elements in the interiors with respect to materials used. Basic construction methods and general specifications. General types and classification of different types of buildings: overview of different functional, structural and architectural elements.
* Introduction to basic structural systems, elements of structure, their functions and behavior, beams, slabs, columns, walls, foundations, bearing wall systems, trusses, rigid frames, linear and curved elements, : simply supported, cantilever and overhanging beams for various loads, : effect of simple geometric forms in the overall structural behavior.

**PRACTICALS**

**M. Marks: 50**

**Exam Duration: 3 hrs**

* Case Studies.
* Market Surveys.
* Visual Presentations.
* Site Visits.

**`**

**REFERENCES**

* **Bindra, S.P. and Arora, S.P**- Building Construction: Planning Techniques and Methods of Construction, 19th ed. Dhanpat Rai Pub., New Delhi, 2000.
* **Chowdary, K.P**.- Engineering Materials used in India, 7th ed. Oxford and IBH, New Delhi,1990.
* **Francis D.** Ching- Building Construction Illustrated, Wiley publishers, 2008.
* **Moxley, R. Mitchell’s** Elementary Building Construction, Technical Press Ltd.
* **Rangwala, S.C**.- Building Construction: Materials and Types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963.
* **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.

**SEMESTER – II**

**BVID – 208: SPACE PLANNING**

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To understand the concept of space, comprehend the principles of house planning & learn to draw house plan.
* To learn about the importance and application of principles of art for commercial purpose & to apply the techniques of art in interior and window display.
* To know the current trends in commercial architecture.

**COURSE CONTENTS**

**THEORY**

**UNIT –I**

* Space for Living – concept of life space – meaning of Macro, Micro and Meso environment ,proxemics and personal space, Territoriality, claustrophobia and agoraphobia crowding, planning objectives and life space – site analysis and orientation. Visual analysis of designed spaces noted for comfort and spatial quality, analysis of solid and void relations, positive and negative spaces.
* Types of plans used by an architect. Allocation of space for various activities – social spaces, work spaces, private space. Drafting house plan for various income groups.
* Basic anthropometrics – average measurements of human body in different postures – its proportion and graphic representation, application in the design of simple household and furniture. Basic human functions and their implications for spatial planning. Minimum and optimum areas for various functions.
* Residential space planning - Need for standardization in housing, types of standards, role of BIS. legal restrictions in housing – plot, easement, zoning law, building law. Finance and institutional support for housing – National environmental engineering research institute (NEERI), National Buildings Organization (NBO), Life Insurance Corporation (LIC) , Housing Development Finance Corporation (HDFC) and Housing and Urban Development Corporation (HUDCO).

**UNIT – II**

* Commercial Space Planning-Definition & development.
* Commercial Display and Techniques – Interior display – general arrangement, principles and factors, types and merchandise display, types of lighting arrangements in commercial buildings.
* Window Display – Meaning, Basic principles and techniques, types of window display, window arrangement.
* New Trends in Commercial Architecture- Design in commercial building. Basic concepts of commercial buildings.
* Features of departmental stores and shopping complex .

**PRACTICALS**

**M. Marks: 100**

**Exam Duration: 3 hrs**

* Introduction to measurement tools. Preparing user profile, bubble and circulation diagrams.
* Detailed study of spaces such as living, dining, bedrooms, kitchen, toilet etc. including the furniture layout, circulation, clearances, lighting and ventilation, etc.
* Space planning for office interiors – cabinets, conference rooms , open office systems.
* Integration of spaces and functions in the design of bus shelter/milk booth/ watchman’s cabin/ traffic police kiosk/ flower stall/ ATM center, etc.
* Case study of existing house and analysis of the spaces. Prepare scale drawings of interior spaces and small houses with proper graphical representation of building components.

**REFERENCES**

* **Arulmanickam A.P. and T.K. Palaniappan** (1993), Estimating and costing, Pratheeba
* **Deshpande, R.S.** (1995) ; Modern ideal Homes for India, Deshpande Publication, Poona
* **Day P.G**. (1982), A guide to professional architectural and industrial scale model building, Eagle wood clifts, N.J. Prentice Hall.
* **Chaudhari, S.N**. 2006, Interior Design. Aavishkar Publishers, Jaipur
* **Francis.D. Ching & Corky Bingelli**- Interior Design Illustrared, 2nd edition, Wiley publishers, 2004.
* **Faulkner, S and Faulkner,** R (1987), Inside Today’s Home, Rinehart Publishing Company, New york.
* **Gupta, C.B., Dr. Nair, Rajan** 2003, Marketing Management, Sultan Chand & Som, New Delhi.
* **Indian Standards Institutions** (1983), National building code of India ISI rol, 1 New Delhi, Marak Bhavan
* **Joseph D Chiara, Julius Panero, & Martin Zelnick**- Time Saver Standards for Interior Design & Space Planning, 2nd edition, Mc-Graw Hill professional, 2001.
* **Julius Panero & Martin Zelnick**- Human Dimension & Interior Space : A source book of Design Reference standards, Watson – Guptill, 1979.
* **Joseph, D.C., Julies, P. and Martiv, Z.** 1992, Time saver standards for Interior Design and space Planning, New York.
* **Kasu, A.A**. 2005, Interior Design, Ashish Book centre Delhi.
* **Khanna**, G.Art of Interior design, Indica Publishers, Delhi.
* **Karlen Mark**- Space Planning Basics, Van Nostrand Reinhold, New York, 1992.
* **Karlen Mark, Kate Ruggeri & Peter Hahn**- Space Planning Basics, Wiley publishers, 2003.
* **Nair, R**. 2002, Marketing, Sultan Chnd and Sons Publisher, New Delhi.
* **Pattanchetti,** C.C. Reddy, P.N. 1995, Marketing, Rainbow publishers, Coimbatore.
* **Sharma, G. and Khana, G**. Advanced Interior Designing Incorporating Vaastu and Feng – shui, Indica Publishers, Delhi.
* **Tessie, A.,** (1986), The House, its plan and use, J.B. Lippincett, New York.

.

**SEMESTER-II**

**BVID-209: WORKSHOP (CERAMICS, MOSAIC, PAPER MACHE, WOOD, GLASS)**

***(ONLY PRACTICAL)***

**M. Marks: 50**

**Practical Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To produce scale models and to encourage preparation of Bed Room Model/ Drawing Room Models as an essential phase in design development and evaluation.
* Students gets the knowledge how the raw materials can be finished, joined and used for different purposes in furniture etc.

**COURSE CONTENTS**

**PRACTICALS**

* Introduction to model making: Need and role of scale models in design: general practices: Basic Furniture Model , Stool, Centre Table, Chair, Chester, Almiraha, Racks.
* False Ceiling Design.
* Design your -
* Class Room.

Or

* Bed Room.

Or

* Drawing Room Design.
* Mosaic – Creating art piece with mosaics.
* Paper Mache – Creating art piece with mache process.
* Wood – Methods of shaping and decorating – printing, varnish, shellac, lacquer, matt and melamine finish. Wood work – cutting, turning, carving, inlay.
* Enrichment of Glass – Etching, engraving, cutting, enameling, painting, use of glass in home.

**REFERENCES**

* **Evans, A** (1973)-, Man the designer, the Macmillan Company, New York.
* **Faulkner, R**- (1986) Art Today, zory field and Hill, New York.
* **Gupta** -Workshop Technology.
* **Holmes, O-** (1982) – A Grammer of Arts, the Macmillan Company.
* **Hazra & Chawdhry** -Workshop Technology.
* **Swaran Singh** - Workshop Practice.

**SEMESTER – II**

**BVGID– 204: COMPUTER APPLICATIONS FOR DRAWINGS & GRAPHICS-II**

***(ONLY PRACTICAL)***

**M. Marks: 100**

**Practical Exam: 80**

**Int. Assessment: 20**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To enable students to operate all commands of CAD.
* To enable the students to draw simple floor plan using AutoCAD commands.

**COURSE CONTENTS**

**PRACTICALS**

* Introduction to Auto CAD - Auto CAD system requirements, Auto CAD GUI-Title bar, Menu bar, Standard tool bar, Object properties, tool bar, Draw tool bar, Modify tool bar, UCS, Layout tab, Command entry, Status bar, Task bar, General commands - New, open, save, save as, close, exit.
* Point Fixing Methods-Line using absolute co-ordinate system, relative rectangular co-ordinate system and relative polar co-ordinate system, circle, arc, ellipse, rectangle, polygon.
* Modification Tools-Erase, copy, move, scale, rotate, trim, extend, array, offset, mirror, break, stretch.
* Drafting settings, function keys, text, text style, text edit, multi text, color, line type, line weight.
* Advanced Tools - Zoom, pan, view, solid, donut, fillet, chamfer, layering concept.
* Study of different types of drafting packages related to 2D e.g. Auto CAD, Power draft, Micro station.
* Creating a new folder in the computer for saving your practical work.
* Draw any three complicated 2D shapes using lines only following Absolute, Relative coordinate systems and object snaps.
* Draw five problems on different geometrical shapes in AutoCAD software using Lines, Polylines, Polygon, Circles, Arcs, Ellipse AutoCAD commands.
* Construct a common templates with institutes logo & standard title block.
* Plot one drawing using above template and containing some 2D entities on suitable size of paper (A4).
* One bed room plan.

**REFERENCES**

* Teach yourself Auto CAD, GIBBS, BPE publication, New Delhi.
* **Omura, G.** 2005, Mastering Auto CAD 2005 and Auto CAD LT 2005, BPB Publications, New Delhi.
* **Saxena, S**. (2003) A First Course in Computers, Vikas Publishing house, New Delhi.

**SEMESTER-II**

**BVG-205: PROFESSIONAL SKILLS-II \*\*\***

**M. Marks: 75**

**Theory Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory question.

**OBJECTIVES**

* To provide knowledge to the students about organizational compliance.
* To develop decision making, planning, organizing, customer centricity, problem solving, analytical and critical thinking skills in students.

**COURSE CONTENTS**

**THEORY**

**UNIT –I**

* Organization’s policies, procedures, standards, safe working practices, quality systems, protocol for exchange of information, management of sensitive information related to product design, protocol to obtain more information on work related tasks; protocol for the presence of various supervisors and workers during the client comments’ discussion meeting, role and responsibilities in relation to IT service ; method of obtaining/ giving

feedback related to performance.

* Decision Making- Decisions on a suitable course of action or response, rule-based decision-making processes, applying balanced judgments to different situations.

Decisions related to concerned area of responsibilities, work supervision, allocating work to the workers, procurement of raw material, standard operating procedures of production floor, problem reporting, performance evaluations, roles and responsibilities, institutional and professional code of ethics and standards of practice, quality systems and other processes practiced in the organization. Points to be considered in decision making (logical, matured, systematic course of actions and/or response, the working of the production line remains unaffected, taking decision with business acumen to optimize cost, quality and availability, effect on the wage plan / structure).

**UNIT II**

* Planning and Organizing- The work; the manpower ; processes related to health, safety and security; the layout of the production line to maintain a smooth and disciplined workflow; the cleaning of workplace daily before and after operations and cleaning & lubricating the concerned machinery & tools daily; effective delivery, activities in line with approved guidelines and procedures, the human resources, proper process flow for feedbacks.
* Customer Centricity**-** Customer centric approach, internal customers’ (workers /supervisors/managers etc) health and safety, external customers’ health and safety related expectations (local/global), effective communication with buyers, customer understanding of trust and loyalty, understanding customer requirements and their priorities.

**REFERENCES**

* **Regional Australian Workforce Development-** Record, Organize and Maintain Workplace Information
* **Rick Suttle** -Organizational Skills in the Workplace.

**\*\*\* Paper in Common with BVTFD**

**SEMESTER – II**

**BVG– 206: HEALTH, SAFETY, INDUSTRIAL AND ORGANISATIONAL COMPLIANCE AT WORK PLACE\*\*\* *(ONLY PRACTICAL)***

**M. Marks: 50**

**Practical Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To provide skills & abilities required to comply with health, safety and security requirements at the workplace.
* To provide understanding of procedures to identify, prevent, control, minimize and eliminate hazards and risks to others in the organization.
* To provide knowledge & understanding required for complying with legal, regulatory and ethical requirements at the workplace

**COURSE CONTENTS**

**PRACTICALS**

**Make a visit to at least 2 industries & observe & analyze the following points and prepare a report explaining each of the following point.**

* Understanding of occupational health and safety.
* Hazards related to damage to organization’s assets and records.
* Safety signage installed in the organization.
* Minimization of health and safety risks to self and others.
* Maintenance and regular cleaning within agreed schedules.
* Maintenance procedure hazards likely to be encountered when conducting routine maintenance.
* Different types of cleaning equipments and substances and their use.
* Environmental conditions - Lighting , ventilation , general comfort.
* Proper disposal system for waste and by-products. Different ways of minimising waste.
* Equipment operating procedures / manufacturer’s instructions.
* Punctuality and attendance, limits of personal responsibility ( using and maintaining personal protective equipments as per protocol, carrying out own activities in line with approved guidelines and procedures, maintaining a healthy lifestyle and guard against dependency on intoxicants , hygiene and good habits, ill-effects of alcohol, tobacco and drugs).
* Methods of safe handling of tools and equipments.
* Layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points.
* Mock-drills/evacuation procedures.
* Undertaking first-aid, fire-fighting and emergency response training actions in the event of fire, emergencies or accidents.
* Lifting and handling procedures and effectiveness of work station
* Maintenance of backup file when working on various designs.
* Maintenance of all soft copies of design work in files as well for future reference.
* Satisfactory working condition of machines & work stations, work aids and attachments as per specifications and working condition, pathways and workflow areas as per compliance requirements.
* Preventive maintenance schedules.
* Storage of materials and equipments in line with manufacturer’s and organizational requirements.

**REFERENCES**

* **Ark Group-**  Creating a Culture of Compliance.
* **Dan Hopwood, Steve Thompson**- Workplace Safety: A Guide for Small and Midsized Companies.
* **Jean Tirole-** The Theory of Industrial Organization.
* **Lynne Millward-** Understanding Occupational & Organizational Psychology.
* **Robert C.Chandler-** Business and Corporate Integrity: Sustaining Organizational Compliance.

**\*\*\* Paper in Common with BVTFD**

**SEMESTER-II**

**BVG-207: WRITING, READING & ORAL COMMUNICATION SKILLS IN ENGLISH-II\*\*\***

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory question.

**OBJECTIVE**

* To train the students in writing, reading and oral communication skills in English.

**COURSE CONTENTS**

**THEORY**

**UNIT –I**

**Writing letters, memos, mails in clear, comprehendible and unequivocal**

**English to the** -

* Buying offices and buyers.
* Vendors.
* Other departments in cases of any product requirements, records or returns, follow up and reference, task lists, any deviation from the normal company norms, customer requirements/complaints.
* Authorities in case of any changes or repairs done while supervising the production department, work assigned to each team member, workers’ performance and current working status.

**UNIT II**

**Read & Comprehend Written Instructions Related To -**

* Worksite and machine operations guidelines, rules, processes, procedures.
* The legal, regulatory policies of the company.
* Design development.
* Safety measures to be adopted while operating the equipments.
* The bills of materials and requirements.
* Latest trends in market for design and availability of materials.
* Task progress.
* Latest developments for innovative safety services, equipments and

tools.

* Customer requirements.

**PRACTICALS**

**Practical Exam: 25**

**Duration of Exam: 3 hrs**

**Oral Communication (Listening and Speaking Skills) related to--**

* Product features & price.
* Order booking and progress.
* Material procurement.
* Task details, process schedules, etc. with team, seeking information from in-house team members to understand progress and taking updates in a proper way ,the importance of personal health and safety at workplace.
* Providing clarifications to unclear worker.
* Communication with the aids of soft skill tools .

**REFERENCES**

* **Koneru- Professional** Communication.
* **Marsha Ludden**- Effective Workplace Communication: Skills for Success in Life and on the Job.
* **Thomas Cheesebro, Linda O’ Connor, Francisco Rios**- Communicating in the Workplace.

**\*\*\* Paper in Common with BVTFD**

**SEMESTER - II**

**ES – 68: ENVIRONMENTAL SCIENCE\*\*\***

**M. Marks: 75**

**Theory Exam: 75**

**Duration of Exam: 3 hours**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory question.

**OBJECTIVES**

* Students will get awareness about physical environment and its components.
* Students will acquire knowledge of natural resources and their types.
* Students will develop the concept of ecology and its components.
* Students will understand the impact of human activities on ecology and need to conserve the resources

**COURSE CONTENTS**

**THEORY**

**UNIT - I**

* Definition, Scope and Importanceofenvironmental science.
* Natural Resources-water, mineral, food, energy and land resources.
* Role of individual in conservation of natural resources.
* Equitable use of resources for sustainable lifestyles.
* Concept, structure, function, types and diversity of ecosystems, value of biodiversity.
* India as a mega-diversity nation, threats to bio-diversity, conservation of bio-diversity**.**

**UNIT - II**

* Definition, causes, effects and control measures of different types of pollution, climate changes, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust disaster management, population explosion.
* Sustainable development, water conservation, rain water harvesting, watershed management, re-settlement and rehabilitation of people, environmental ethics, environment protection acts, public awareness.
* Role of information technology in maintenance of environment and human health.

**PRACTICALS**

**M. Marks: 25**

**Duration of Exam: 3 hrs**

* Project work on any topic related to theory syllabus.

**REFERENCES**

* **Agarwal, K.C Nidi** - Environmental, Biology by Publi.Ltd.Bikaner2001, Ahmedabad
* **Bharucha, Erach** -The Biodiversity of India , Mapin Publishing Pvt. Ltd,
* **Brunner R.C McGraw Hill** -Hazardous Waste, Incineration , Inc.480p, 1989
* **Clark R.S Clanderson** -Marine Pollution by Press Oxford (TP)
* **Cunningham**-Environmental, Encyclopedia , W.P. Cooper, Jaico Publ. House, Mumbai, 1196p M.T.2001
* **De A.K Wileely** -Environmental Chemistry , Eastem Ltd.
* Down to Earth, Center for Science and Environment
* **Gleick**-Water in crisis H.P, Pacifics Institute for Studies in Dev.,Environment & Security. Stockholm Env. Institute. Oxford Univ. Press.473p.1993.

**\*\*\* Paper in Common with BVTFD**

**KURUKSHETRA UNIVERSITY, KURUKSHETRA**

**SYLLABUS FOR**

**B.VOCATIONAL PROGRAMME**

**IN**

**INTERIOR DESIGNING**

**(SEMESTER – III)**

**w.e.f. 2016-17**

**SEMESTER – III**

**Qualifications Pack** – Not Available

**Sector -** Furniture and Fittings Skill Council

**National Skills Qualifications Framework (NSQF) Level –** 6

**KURUKSHETRA UNIVERSITY, KURUKSHETRA**

**SYLLABUS FOR**

**B.VOCATIONAL PROGRAMME IN INTERIOR DESIGNING (SEM – III)**

**w.e.f. 2016-17**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Paper Code** | **Title of the Paper** | **Total Credits/ Semester** | | **Contact Hours/**  **Week** | | **Max. Marks** | | | |
| **Th.** | **Pr.** | **Th.** | **Pr.** | **Theory** | **Exam Duration** | **Practical** | **Exam Duration** |
| BVID-310 | Introduction to Building Materials and Fundamentals of Structure-II | 2 | 1 | 2 | 2 | 50 (40+10\*) | 3 hrs | 25 | 3 hrs |
| BVID-311 | Interior Design Studio-I  **(Only Practical)** | - | 5 | - | 10 | - | - | 125 (100+25\*) | 3 hrs |
| BVID-312 | Environmental Control in Interiors –I | 3 | - | 3 | - | 75 (60+15\*) | 3 hrs | - | - |
| BVID-313 | Psychology of Space and Behavioral Science | 2 | - | 2 | - | 50 (40+10\*) | 3 hrs | - | - |
| BVID-314 | Traditional & Contemporary Arts &  its Appreciation  **(Only Practical)** | - | 3 | - | 6 | - | - | 75 (60+15\*) | 3 hrs |
| BVID-315 | Workshop (Metal Work & Photography )  **(Only Practical)** | **-** | 2 | - | 4 | **-** | **-** | 50  (40+10\*) | 3 hrs |
| TOTAL | Skill Component | 7 | 11 | 7 | 22 | 175 (140 +35\*) | - | 275 (225+50\*) | - |
| BVGID- 308 | Computer Applications for Drawings & Graphics – III  (Only Practical) | - | 7 | - | 14 | - |  | 175 (140+35\*) | 3 hrs |
| BVG-309\*\* | Professional Skills- III | 2 | - | 2 | - | 50 (40+10\*) | 3 hrs | - | - |
| BVG-310\*\* | Business Communication & Entrepreneurship Development | 3 | - | 3 | - | 75 (60+15\*) | 3 hrs | - | - |
| **TOTAL** | **General Education Component** | **5** | **7** | **5** | **14** | **125 (100+25\*)** | **-** | 175 (140+35\*) | **-** |
| **GRAND TOTAL** | **Skill Component and General Education Component** | **12** | **18** | **12** | **36** | **300 (240+60\*)** | **-** | **450 (365+85\*)** | **-** |
| **300+450 = 750** | | |

***\*Internal Assessment******- For Theory Papers****, It will be Based on One Test/Seminar= 50 %, One Class Test =25 %, Attendance = 25% -* ***For Practicals****, It will be Based on One Seminar/ Test/Workshop/Project/ Training= 50 %, One Class Test =25 %, Attendance = 25%.*

***One Credit Point for Theory*** *= 1 Hour Contact Time / Week.*

***One Credit Point for Practical/ Workshop*** *= 2 Hours Contact Time / Week.*

***One Semester*** *= 14 to 15 Weeks.*

***One Credit****= 25 Marks*

**\*\* Papers in Common with BVTFD**

**SEMESTER – III**

**BVID-310: INTRODUCTION TO BUILDING MATERIALS AND FUNDAMENTALS OF STRUCTURE- II**

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To provide knowledge on different types of building materials and also current trends and innovations in these materials.
* To provide an understanding of various forces acting on building structures.

C**OURSE CONTENTS**

**THEORY**

**UNIT I**

* Building Materials -Physical and behavioral properties of materials, their application in the construction of floors, walls, ceilings, walls, doors, windows, staircases, built in furniture, partitions and other interior design components.
* Visual quality of materials in terms of finishes through color, texture, modulations and pattern evolution.
* Glass and glass products –their properties and uses in buildings. Commercial forms available – their physical and behavioral properties, tools and technology of its application in built forms.
* Rubber –- Types, properties and application.
* Plastics ––Types, properties and applications.

**UNIT – II**

* Adhesives –Types, method of application, bond strength etc.
* Asphalt and Bitumen –Properties and uses.
* Introduction to building codes , Primary and secondary forces acting on the structures – gravitational force, live load, wind, temperature variation, distribution of loads through the elements of the structural system.
* Light weight space structure, small and large scale surface structure, integrated display system and structural elements.
* Structural systems and their layout for a small building. Structural systems for elements of interior spaces – false ceilings etc. Structural system for urban interior spaces – malls, fair grounds, exhibition spaces, etc.

**PRACTICALS**

**M. Marks: 25**

**Duration of Exam: 3hrs**

* Case studies/ market surveys/ visual presentations/ site visits/ drawings.
* Market surveys to be conducted to find out the commercial and technical names, sizes , BIS and codes for materials, testing, fabrication, commercial methods of pricing, billing etc.

**REFERENCES**

* **Bindra SP and Arora SP**- Building Construction: Planning Techniques and Methods of Construction, 19th ed. Dhanpat Rai Pub., New Delhi, 2000.
* **Chowdary, K.P**.- Engineering Materials Used in India, 7th ed. Oxford and IBH, New Delhi,1990.
* **Francis D**. Ching- Building Construction Illustrated, Wiley publishers, 2008.
* **Moxley,** **R.** Mitchell’s Elementary Building Construction, Technical Press Ltd.
* **Rangwala, S.C**.- Building Construction: Materials and types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963.
* **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.

**SEMESTER – III**

**BVID- 311: INTERIOR DESIGN STUDIO-I**

***(ONLY PRACTICAL)***

**M. Marks: 125**

**Practical Exam: 100**

**Int. Assessment: 25**

**Duration of Exam: 3 hrs**

**OBJECTIVE**

* To create an understanding of conceptual visualization, hand skill building and the process of design.

**COURSE CONTENTS**

**PRACTICALS**

* Applying anthropometry in relation to interior spaces.
* Various techniques of creating designs.
* Application of design principles and elements in interiors.
* Graphic design & concept sketching.
* Making different color schemes for interiors of any two buildings.
* Collection of samples of material for interiors of various parts of buildings.
* Drawing furniture layout of any of the two buildings.
* Planning of small and large spaces.
* Creating own interior designs for one residential and one commercial building.

**At least two major exercises and two minor design problems relating to any one of the following -**

* Single room residence.
* Doctor’s clinic.
* Kindergarten school.
* Architect’s studio.
* Small cafeteria.
* Bank extension counter.
* Departmental store.
* Local police station.
* Local post office.
* Products used by architects in the studio, products for children in kindergarten etc.

**REFERENCES**

* **Francis’s. Ching & Corky Bingell-** Interior Design Illustrared, 2nd edition, Wiley publishers, 2004.
* **Joseph D Chiara, Julius Panero, & Martin Zelnick**- Time Saver Standards for Interior Design & space planning, 2nd edition, Mc-Graw Hill professional, 2001.
* **Julius Panero & Martin Zelnick-** Human Dimension & Interior Space : A Source Book of Design Reference Standards, Watson – Guptill, 1979.
* **Karlen Mark-** Space Planning Basics, Van Nostrand Reinhold, New York, 1992.
* **Maureen Mitton-** Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation Techniques. John Wiley and Sons, 2003
* **Mark.W. Lin-** Drawing and Designing with Confidence: A Step-by-Step Guide, Wiley and Sons, 1993.
* **Robert Rengel-** Shaping Interior Space, Fairchild Books & Visuals ,2002.

**SEMESTER- III**

**BVID-312: ENVIRONMENTAL CONTROL IN INTERIORS- I**

**M. Marks: 75**

**Theory Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To develop an understanding of environmental control in interiors.
* To provide an understanding of application of acoustical and lighting design in the interiors.

**COURSE CONTENTS**

**THEORY**

**UNIT I**

* Environment Control – Meaning of environment, importance of environment control, elements to be controlled in the interiors.
* Need to study acoustics, methods used for good acoustics ; properties of sound – sound waves, wave length, frequency, velocity, resonance, sound levels, loudness, noise, sound reflection, echoes, reverberation, behavior of sound in enclosed spaces ; sound absorption –sound absorbent material , speech privacy and annoyance, background noise.
* Communication in open plans, electronic sound systems.
* Layout & guidelines for good acoustical design.
* Acoustic Design Process and Different Types of Buildings – Auditoriums, concert halls, cinema halls, seminar rooms, lecture halls, classrooms and open offices.

**UNIT-II**

* Lighting and Vision – Principles of lighting, effects of good lighting, considerations for good lighting, brightness, glare, contrast and diffusion.
* Economic issues of lighting, different sources of light, integration of day lighting with artificial lighting.
* Planning Lighting – General aims, lighting needs, selection of fixtures, location and placing of fixtures.
* Lamps and Lighting Fixtures – Floor, table and desk, wall mounted, ceiling units, built in lighting, decorative lighting, spot lighting, task lighting, underwater ,miscellaneous types etc.
* Lighting design in residences, offices and stores.

**REFERENCES**

* **Burris, Harold**, Acoustics for Architect.
* **David Egan. M.** Concepts in Architectural lighting Mcgraw Hill Book company, New York, 1983.
* **Egan David,** Architectural acoustics, Mc-Graw Hill Book company, New york, 1988.
* **John.F. Pile**, Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.
* **Lord, Peter and Tempelton, Duncan**, The Architecture of sound,. ; Designing places of Assembly ,Architectural press ltd, London, 1986.
* **Moore J.E**. , Design of good acoustics, The architectural press, London, 1961
* **Moore Fuller**, Concepts and practice of Architectural Day lighting, Van Nostrand Reinhold co., New York, 1985.
* **Poella . L. Leslie,** Environmental Acoustics.
* **Wanda Jankowski**, Lighting : In Architecture and Interior Design, pbc intl, 1995.

**SEMESTER-III**

**BVID-313: PSYCHOLOGY OF SPACE AND BEHAVIORAL SCIENCE**

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVE**

* To acquire the knowledge to design a space for the user based on his/her perception and behavior to the space.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

* Perception of space through understanding associative aspects relating to space.
* Understanding of cognitive theories and Gestalt principles of psychology related to the field of space making.

**UNIT II**

* Relationship of spatial elements like floor, column, wall, window, door, stair, roof, light, color, texture to the psychology and perception of space.
* Kinesthetic – Understanding perception while in movement and space organization around such phenomena.
* Analysis of Human Mind and His/Her Image of the World - Social behavior patterns, traditional thinking and behavior and reflection of social world into physical environment.
* Human Being and His Behavior in Various Public and Private Areas – Change of patterns in various cultures. Human behavior in a group. Activities and its relationship with grouping of people.

**REFERENCES**

* **Bryan Lawson**- Language of Space, Architectural Press, 2001.
* **Irwin Altman & Erwin . H. Zube-** Public spaces and places, (Human Behavior and environment), Springer link, 1989.
* **Roger Downs, David Stea, Kenneth .** **E. Boulding-** Image and environment, Transaction Publishers.
* **Setha . M. Low, Denise Lawrence** – Zunigias- Anthropology of Space and place : Locating Culture, Wiley – Blackwell publishers, 2003.
* **Yi- Fu Tuan, Steven Hoelscher-** Space and Place : The Perspective of Experience, University of Minnesota Press, 2001.

**SEMESTER – III**

**BVID- 314: TRADITIONAL & CONTEMPORARY ARTS & ITS APPRECIATION *(ONLY PRACTICAL)***

**M. Marks: 75**

**Practical Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To give an understanding of art/craft forms as design elements and its relevant application in the modern society.
* To enable students to modernize old craft technology for better forms for interior use.

**COURSE CONTENTS**

**PRACTICALS**

* Identify private and public craft activity around your surroundings.
* Explore various design issues in transforming old craft forms into modern context by keeping its original spirits.
* Visit to the craft pockets. Document people, life, culture and craft and understand the materials, tools, technology, processes and forms.
* Suggest suitable changes in technology to improve the products so as to make it acceptable in today’s context.

**REFERENCES**

* **Hobbs, Jack & Salome, Richard,** The Visual Experience. David Publications Inc. Massachusetts.
* **Karsnitz, John, R**. (1984) Graphic Arts Technology. Delmar Publisher Inc., New York
* **Katz, Elizabeth L., Lankford, Louis E; & Plank, Janice D**. (1994) Themes and Foundations of Art. National Textbook Company, USA.
* **Linderman, E.W. And Linderman, M.M**. (1974) Craft for the classroom , William C. Brown. IOWA, USA.
* **Munther, W. Masri (1994)** Vocational Education: The Way Ahead. Macmillan Press, London.
* **Ocvirk, O.G, Bone, R; Stinson, R & Wigg, P;** (1962) Art Fundamentals, Theory and Practice W.M.C. brown Company, USA.
* **Ozoagba, I.N.** (2000) Understanding Art in General Education. Rex Charles & Patrick Ltd., Nigeria.

**SEMESTER-III**

**BVID – 315: WORKSHOP (METAL WORK & PHOTOGRAPHY)**

**(*ONLY PRACTICAL)***

**M. Marks: 50**

**Practical Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To give an understanding ofpainting, polishing and metal works*.*
* To provide basic understanding of photographic techniques required for Interior Designing.

**COURSE CONTENTS**

**PRACTICALS**

* **Metal Work**
* Introduction of the tools and equipments used in fitting and welding shop ; filing, drilling and tapping , joining with the help of electric and gas welding for making simple joints in metal industry.
* Metals and Alloys – Enrichment of metals- aluminium, bronze, brass, silver, copper.
* **Photography**
* Introduction to the basic principles of photography and photographic equipments.
* Understanding of different cameras.
* Techniques of photography.
* Lighting in photography.
* Digital photography.
* Interior photography.
* Close up photography.

**Minimum Three Articles to be in each Metal Work & Photography.**

**REFERENCES**

* **Corky Bingelli**- Materials for Interior Environments, , John wiley and sons, 2007.
* **Eric Roth**, Interior Photography: Lighting and Other Professional Techniques with Style, Amphoto Books; illustrated edition , 2005
* **John .F. Pile**- Interior Design, Harry. N Abrams, Inc. New York . 1995.
* **June Fish**- Designing and Printing Textiles, Crowood Press, 2005.
* **Julius Shulman & Richard Neutra**, Photographing Architecture and Interiors, Balcony Press, 1st edition, 2000.
* **Marypaul Yates**- Fabrics: A Guide for Architects and Interior Designers , Norton publishers, 2002.
* **Michael Harris**, Professional Interior Photography, Focal press publishers, third edition, 2003
* **Philip Andrews & Michael Langford**, Langford‟s Starting Photography: A guide to better pictures for film and digital camera users, Focal press publishers, 4th edition, 2005.
* **Ron Fournier**- Metal Fabricator‟s Handbook, Rev. Illustrated edition, HP Books,

1990.

* **R.W.Lee-** Printing on Textiles by Direct and Transfer Techniques, Noyes Data Corporation, 1981.
* **Scott Kelby**, The Digital Photography Book, peachpit press, 1st edition,2006.
* **Tom Grimme & Michelle Grimme**, The Basic Book of Photography, 5th ed., Plume, 2003.

**SEMESTER – III**

**BVGID- 308: COMPUTER APPLICATIONS FOR DRAWINGS & GRAPHICS – III**

**(*ONLY PRACTICAL)***

**M. Marks: 175**

**Practical Exam: 140**

**Int. Assessment: 35**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To enable the students to operate all 2D dimensional drawing commands.
* To work on Auto CAD and its advance commands.

**COURSE CONTENTS**

**PRACTICALS**

* Concept of data interchange.
* CAD and its Advanced Application.
* Creating and organizing 2D drawings.
* All 2D dimensional drawing commands.
* All 2D dimensional edit commands.
* Inquiry commands.
* Drawing and different scales.
* Introduction to block and its applications.
* Text and fonts.
* AutoCAD and its Advance commands.
* Application of block and concept of symbols library.
* Data extraction.
* All display commands.
* Concept of surface development.
* Shading and rendering.
* Introduction of other drafting and presentation softwares like Auto Architect, Home

Architect, Auto Desk, Arch CAD, Auto Lisp, Auto Shade, 3D Home, google sketchup, Paintbrush and their applications.

* Interior Design - I topic plans without presentation.

**REFERENCES**

* **David Frey-** AutoCAD 2000 BPB publication.
* **George Omura-** Mastering AutoCAD BPB publication.
* **P. Nageswara Rao** - AutoCAD For Engineering Drawing Made Easy,

Tata McGraw Hill.

* **R Taxali** - Computer Course Tata McGraw Hills. New Delhi.
* **Sham Tickoo** - AutoCAD 2004 Galgotia Publications, New Delhi.
* **Yarwood-** An Introduction to AutoCAD2000 LongMan.

**SEMESTER-III**

**BVG: 309-PROFESSIONAL SKILLS-III\*\***

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory question.

**OBJECTIVE**

* To acquaint the students with industry standards, problem solving techniques and analytical thinking.

**COURSE CONTENTS**

**THEORY**

**UNIT I**

* Industry Standards and Inspection Methodologies- Reporting procedures and formats and their periodicity; responsibilities under health, safety and environmental legislation; job roles and responsibilities; teamwork and working relationships; process for offering/obtaining work related assistance; standard operating procedures for query and problem reporting and their redressal in the organization framework; incentives, promotions and performance evaluation. Institutional and professional code of ethics and standards of practice.
* Problem Solving-The importance of taking action when problems are identified, identifying cause & effect relationship for the emergencies, problem-solving approaches in different situations, types of problems associated with different kinds of production system and how to report them to appropriate people.

**UNIT II**

* Analytical Thinking**-** Analyzing needs, requirements and dependencies; the method of production system ; analyzing effect of decisions on the production processes; analyzing the level of seriousness and efficiency of work performed by each worker & team member as per their skill set ; customer requirements.
* Critical Thinking**-** Critical evaluation of opinions on work; critical evaluation of the information gathered from observation, experience, reasoning, or communication to act efficiently; critical evaluation of probable trouble spots, the procedures and requirements adopted for building better sub-processes, processes, performance of work, supervision strategies.
* Negotiation Skills- Methods of negotiations, qualities of good negotiator, types of negotiators, Best Alternative to a Negotiated Agreement  (BATNA) ,  Zone of Possible Agreement*(*ZOPA*).*

**REFERENCES**

# [Barun K. Mitra](http://www.amazon.in/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=Barun+K.+Mitra&search-alias=stripbooks)- Personality Development and Soft Skills,    2011.

* **Christine M. Piotrowski** - Problem Solving and Critical Thinking for Designers
* **Ken Watanabe**- Problem Solving 101: A simple book for smart people.

# [M. K. Pandey](http://www.amazon.in/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=M.+K.+Pandey&search-alias=stripbooks) - Analytical Reasoning, 2009.

* **Marion Debruyne**- Customer Innovation: Customer-centric Strategy for Enduring Growth
* **PDC Professional Publishing**- Customer Centric Product Definition.
* **Paul Brest, Linda Hamilton Krieger -** Problem Solving, Decision Making, and Professional Judgment.
* [**Vincent Granville**](http://www.amazon.in/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=Vincent+Granville&search-alias=stripbooks)- Developing Analytic Talent: Becoming a Data Scientist ,  2014.

**\*\* Paper in Common with BVTFD**

**SEMESTER – III**

**BVG– 310: BUSINESS COMMUNICATION & ENTREPRENEURSHIP DEVELOPMENT\*\***

**M. Marks: 75**

**Theory Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory question.

**OBJECTIVES**

* To enable the students to acquire effective communication skills adapting to domestic as well as global business.
* To create awareness about entrepreneurship.
* To foster entrepreneurial traits and techniques and to develop entrepreneurial orientation through innovation and creativity.

**COURSE CONTENTS**

**THEORY**

**UNIT I**

* Definition, types & principles of business communication.
* Corporate Communication- Formal and informal communication network, effective presentation skills.
* Barriers in communication; improving communication.
* Practices in Business Communication – Group discussion, mock-interview and seminars, report writing: principles and contents.
* Communication & Self Development- SWOT analysis, body language – kinesics, proxemics, para language, principles of effective listening- oral, written and video session; interviewing skills- appearing and conducting; writing resume.
* International Communication.

**UNIT II**

* Concept of entrepreneurship- Definition nature and characteristics of entrepreneurship, functions and types of entrepreneurship.
* Enterprise and entrepreneurship, transition from income generation to self employment and entrepreneurship, problems of entrepreneurs vs professional managers, factors influencing entrepreneurial development.
* Steps in setting up an enterprise ,factors to be considered, six M’s (money, materials and machineries, man power, management and marketing).
* NET work analysis techniques, Programme Evaluation Review Technique (PERT) and Critical Path Method (CPM), SWOT analysis, legal issues.
* Institutional service to entrepreneur - District Industries Centre (DIC), small industries development organization (SIDO),National Small IndustriesCorporation(NSIC), small industries services institute (SISI), state small industries corporation (SSIC), small industries development corporation (SIDCO), Industrial Internet Consortium (IIC), institutional finance to entrepreneur – Industrial Finance Corporation of India (IFCI), State Financial Corporation (SFC), Industrial Development Bank of India (IDBI), Industrial Credit and Investment Corporation of India (ICICI), Tamil Nadu Industrial Investment Corporation (TIIC), State Industrial Development Corporations (SIDCs), Life Insurance Corporation of India (LIC) and General Insurance Corporation (GIC), Unit Trust of India (UTI), Small Industries Development Bank of India (SIDBI) and commercial bank venture capitals, incentives and subsidies.

**REFERENCES**

* **Balasubramanyam** : Business Communications; Vikas Publishing House, Delhi.
* **Bovee and Thill** : Business Communication Today, Tata McGraw Hill, New Delhi.
* **B. Gupta and N.P. Srinivasan**: Entrepreneurial Development.
* **Barringer, Bruce R., Ireland Duane R**. (2012). Entrepreneurship: Successfully Launching New Ventures(4 ed.). Prentice Hall. pp 77-96.
* **Battacharya :** Entrepreneurship development in India and at south east Asian countries Amrishing Prasad Publishing, New Delhi 1983.
* **Dr.N. Ramu**: Entrepreneurial Development.
* **Davies, Paul**. (2008). New Business in India: The 21st Century Opportunity. World Scientific Publishing Company. pp 1-23.
* **Desjardins, Joseph.(2009**). An Introduction to Business Ethics*.*(3 ed.). McGrawHill. pp 1-35.
* **Kotler, Phillip., Kevin L Keller, Abraham Koshy, & Mithilesh Jha**:(2009). MarketingManagement.(13 ed.) Prentice Hall. pp 4-30, 177-183, 200-205.
* **Kaul :** Effective Business Communication :Prentice Hall, New Delhi.
* **Netrakanti and Shintre:** Communicative Competence in Business English; Orient Longman, Hyderabad.
* **Patri V.R.** : Essentials of Communication; Greenspan Publications, New Delhi.
* **P.SaravanaVel**: Entrepreneurial Development .
* **Randall E. Magors** :Business Communication; Harper and Row, New York. Robinson,
* **Ronald E. Dulek and John S. Fielder**: Principles of Business Communication; Macmillan Publishing Company, London.
* **Renu Arora and S.KI.Sood**: Fundamentals of Entrepreneurship and small Business.
* **Senguin J** : Business Communication; The Real World and Your Career, Allied Publishers, New Delhi.
* **S.S.Khanka**: Entrepreneurial Development .
* **S.G.Bhanushali:**  Entrepreneurial Development.
* **Sharma R.**K: Development banks & entrepreneurship promotion in India, Mital publication, New Delhi.

**\*\* Paper in Common with BVTFD**

**KURUKSHETRA UNIVERSITY, KURUKSHETRA**

**SYLLABUS FOR**

**B.VOCATIONAL PROGRAMME**

**IN**

**INTERIOR DESIGNING**

**(SEMESTER – IV)**

**w.e.f. 2016-17**

**SEMESTER – IV**

**Qualifications Pack** – Not Available

**National Skills Qualifications Framework (NSQF) Level –** 6

**Sector -** Furniture and Fittings Skill Council

**KURUKSHETRA UNIVERSITY, KURUKSHETRA**

**SYLLABUS FOR**

**B.VOCATIONAL PROGRAMME IN INTERIOR DESIGNING (SEM – IV)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Paper Code** | **Title of the Paper** | **Total Credits/ Semester** | | **Contact Hours/**  **Week** | | | | **Max. Marks** | | | | | | |
| **Th.** | **Pr.** | **Th.** | | **Pr.** | | **Theory** | | **Exam Duration** | | **Practical** | **Exam Duration** |
| BVID- 416 | Introduction to Building Materials and Fundamentals of Structure-III | 2 | 1 | 2 | | 2 | | 50 (40+10\*) | | 3 hrs | | 25 | 3 hrs |
| BVID-417 | Green Building Technology & Practices  ***(Only Practical)*** | - | 2 | - | | 4 | | - | | - | | 50 (40+10\*) | 3 hrs |
| BVID- 418 | Interior Design Studio-II  ***(Only Practical)*** | - | 5 | - | 10 | | - | | - | | 125 (100+25\*) | | 3 hrs | |
| BVID- 419 | Environmental Control in Interiors –II | 2 | - | 2 | | - | | 50 (40+10\*) | | 3 hrs | | - |  |
| BVID-420 | Life Style Accessories & Furniture Design | 3 | 3 | 3 | | 6 | | 75 (60+15\*) | | 3 hrs | | 75 | 3 hrs |
| ***TOTAL*** | ***Skill Component*** | ***7*** | ***11*** | ***7*** | | ***22*** | | ***175 (140 +35\*)*** | | ***-*** | | ***275 (240+35\*)*** | ***-*** |
| BVGID – 411 | Computer Applications for Drawings & Graphics– IV  ***(Only Practical)*** | **-** | 7 | - | | 14 | | **-** | |  | | **175 (140 +35\*)** | 3 hrs |
| BVG - 412 \*\* | Professional Skills -IV | 3 | - | 3 | | - | | 75 (60+15\*) | | 3 hrs | | - | - |
| BVG- 413 \*\* | Economics for Business Decisions | 2 | - | 2 | | - | | 50 (40+10\*) | | 3 hrs | | - | - |
| ***TOTAL*** | ***General Education Component*** | ***5*** | ***7*** | ***5*** | | ***14*** | | ***125 (100+25\*)*** | | ***-*** | | ***175 ( 140+35\*)*** | ***-*** |
| **GRAND TOTAL** | **Skill Component and General Education Component** | **12** | **18** | **12** | | **36** | | **300 (240 +60\*)** | | **-** | | **450 (380+70\*)** | **-** |
| **300+450= 750** | | | | | |

**w.e.f. 2016-17**

**\**Internal Assessment******- For Theory Papers****, It will be Based on One Test/Seminar= 50 %, One Class Test =25 %, Attendance = 25% - For Practicals, It will be Based on One Seminar/*

*Test/Workshop/Project/ Training= 50 %, One Class Test =25 %, Attendance = 25%*

***One Credit Point for Theory*** *= 1 Hour Contact Time / Weeks.*

***One Credit Point for Practical/ Workshop*** *= 2 Hours Contact Time / Week.*

***One Semester*** *= 14 to 15 Weeks.*

***One Credit****= 25 Marks*

**\*\* Papers in Common with BVTFD**

**SEMESTER – IV**

**BVID -416: INTRODUCTION TO BUILDING MATERIALS & FUNDAMENTALS OF STRUCTURE-III**

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To provide the knowledge on the various building materials, current trends and innovations in the usage of interior design materials.
* To give an understanding of characteristic requirements of structural design.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

* Roofing – Roofing tiles and asbestos cement products, sheets and fiber boards – properties, uses and application.
* Flooring -Various natural as well as artificial flooring materials like vitrified tiles, ceramic tiles, Shahabad stones, mosaic, rubber, linoleum, PVC and PVA flooring, properties, other uses and applications in the interiors.

**UNIT -II**

* Metals – Steel, iron, aluminum, bronze, brass, copper – alloys, characteristics, form and uses, properties, definition of terms, methods of working with metals, fixing and joinery in metals, finishing and treatment to metals.
* Application of Metals to Built Form and Interiors - Special doors and windows, ventilators – sliding, sliding and folding, revolving, pivoted, rolling, collapsible, dormer, skylights, clerestory etc.
* Fabrics and Other Furnishing Materials – Fibers, textiles, fabric treatments, carpets, durries, tapestries, draperies, upholstery, wall coverings, etc. –properties, uses and application in the interiors.
* Miscellaneous materials such as cork, leather, paper, rexene etc. – their properties, uses and applications in the interiors. A brief overview of green materials.
* Characteristic Requirements of Structural Design – Stress and strains, strength, stiffness and stability. Discussion on factors affecting them and the ways of satisfying these requirements.

**PRACTICALS**

**M. Marks: 25**

**Duration of Exam: 3 Hours**

* Physical and behavioral properties, tools and technology of its application in the construction of floors, walls, ceilings, 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, workmanship, specification etc.

**REFERENCES**

* **Bindra, S.P. and Arora, S.P**- Building Construction: Planning Techniques and methods of Construction, 19th ed. Dhanpat Rai Pub., New Delhi, 2000.
* **Chowdary, K.P-** Engineering Materials used in India, 7th ed. Oxford and IBH, New Delhi,1990.
* **Francis D. Ching**- Building Construction Illustrated, Wiley publishers, 2008.
* **Moxley, R. Mitchell‟s** -Elementary Building Construction, Technical Press Ltd. Rangwala, S.C. Building Construction 22nd ed. Charota Pub. House Anand, 2004.
* **Rangwala, S.C**- Building Construction: Materials and Types of Construction, 3rd ed. John Wiley and Sons, Inc., New York, 1963.
* **S.K. Duggal**- Building Materials, Illustrated, A.A.Balkema,1998.

**SEMESTER-IV**

**BVID-417: GREEN BUILDING TECHNOLOGY & PRACTICES**

***(ONLY PRACTICAL)***

**M. Marks: 50**

**Practical Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To help the students to understand the importance of green building technology, recent green building materials and to trap rain water.

**COURSE CONTENTS   
PRACTICALS**

* **Conduct survey of any 2 green buildings & find out which of the following green building practices & technologies are followed**-
* Materials and Finishes Used in Green Building – Bamboo, straw, wood, dimension stone, recycled stone, non-toxic metals; earth blocks-compressed, rammed, baked; vermiculites, flax linen, sisal, wood fibres, cork, coconut ,polyurethane block.
* Green building practices and technologies for roof, walls, floors, electrical, plumbing, windows, and doors; heating, ventilation and air conditioning (HVAC); insulation, Interior finishes, landscaping.
* Renewable Energy Resources –Solar devices – solar room heater, solar lights, solar water heater& solar air conditioners.
* Water Conservation Technologies- Rain water harvesting- types of rain water harvesting systems.

**REFERENCES**

* **Rai G.D** (1996), Solar Energy Utilization, Khanna Publichsers, Delhi.
* **Riggs, J.R.** (1992) Materials and Components of Interior Design, Regents Hall, New Jersey.
* **Faulkner, R., and Faulkner. S**, (1987) Inside Today’s Home, Rinehart publishing House, Newyork.
* **Roa, M.P.** (1998), Interior design, principles and practice, standard publishers, Delhi.
* **Despande, R.S**, (1974) Build your own home, United book corporation, Poona.

**SEMESTER – IV**

**BVID -418: INTERIOR DESIGN STUDIO-II**

***(ONLY PRACTICAL)***

**M. Marks: 125**

**Practical Exam: 100**

**Int. Assessment: 25**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To develop creative conceptual visualization, hand skills and the process of design.
* To work on graphic layout and elevations as a design process.

**COURSE CONTENTS**

**PRACTICALS**

* **Thematic Space Making with Art and Craft Forms of Our Own Culture in India**
* East
* West
* North
* Central
* **Design of Living Units of Various Geographical Locations and Culture**
* By involving contemporary styles.
* By use of craft in its inherent quality and form.
* **Applications of Art / Craft at Public Level Spaces**
* Lounge (Hotel).
* Restaurant of specific ethnic characteristics.
* **For a Given Building Create Contemporary Homes of Modern Society**
* According to needs.
* According to realities.
* According to value system .

**REFERENCES**

* **Francis.D. Ching & Corky Bingelli**- Interior Design Illustrated, 2nd edition, Wiley Publishers, 2004.
* **John F. Pile**- A History of Interior Design, Laurence King Publishing, 2005.
* **Joseph D Chiara, Julius Panero, & Martin Zelnick-** Time Saver Standards for Interior Design & Space Planning, 2nd edition, Mc-Graw Hill Professional, 2001.
* **Julius Panero & Martin Zelnick**, Human Dimension & Interior Space : A Source Book Of Design Reference Standards, Watson – Guptill, 1979.
* **Karlen Mark**- Space planning Basics, Van Nostrand Reinhold, New York, 1992.
* **Mark.W. Lin**, Drawing and Designing with Confidence: A Step-By-Step Guide, Wiley and Sons, 1993.
* **Maureen Mitton**- Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation Techniques. John Wiley and Sons, 2003
* **Neufert Ernest**- Architect‟s Data, Granada pub. Ltd. London, 2000.
* **Robert Rengel**- Shaping Interior Space, Fairchild Books & Visuals ,2002
* **Robin D. Jones**- Interiors of Empire- Objects, Space and Identity within the Indian Subcontinent, Manchester University Press; illustrated edition, 2008

**SEMESTER-IV**

**BVID-419: ENVIRONMENTAL CONTROL IN INTERIORS- II**

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVE**

* To learn the concept of heating, air conditioning, ventilation and color.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

* Heating – Need for room heating, types of heating system – central, radiant, forced air; Solar system – Active solar system and passive solar system.
* Air conditioning - Need for air-conditioning, principles of air conditioning system, humidity control, types of air conditioning , application in building like apartments and guest rooms, libraries, museums and hospitals.
* Ventilation-Definition, importance, types of ventilation-natural and mechanical, guidelines for natural ventilation.

**UNIT – II**

* Climate and material choices, Concept of color - significance of color in the interiors and exteriors, Dimensions of color –hue, value, intensity, effects of hue, value and Intensity.
* Color Systems - Prang, Munsell and Ostwald, planning color harmonies-related and contrast. Factors considered in selecting color harmonies
* Application of color harmonies in the interiors and exteriors –Effects of light on color, Illusion of color, psychology of color, effect of color on each other, color and texture choices for interior spaces .

**REFERENCES**

* **Faulkner, R. and Faulkner,S.(**1987), Inside Today ‘s Home, Rine hart publishing company, Newyork.
* **Judy,M.,(**1994), How to see, how to paint it, Harpen colling publishers,London.
* **Jan Orcharchd** (1993), Lighting for a beautiful Home, Dunestyle publishing Ltd.,U.S.A.
* **Konya Allan**- Design for Hot Climates.
* **Kukreja. C.P**- Tropical Architecture. Tata McGraw Hill Pub. Co. Ltd. New Delhi, 1978.
* **Koeinsberger, O.H. et al** Manual of Tropical Housing and Building. Orient Longman, Chennai, 2003.
* **Markus, T.A and Morris. E.N.-** Buildings. Climate and Energy, Pitman Pub Ltd., London, 1980.
* **Olgay and Olgay**, Solar Control and Shading Devic.
* **Seetharam, P and Pannu**, P.Interior Design and Decoration, CBS publishers and distributors, NewDelhi.
* **Stewart and Sally .W.,** (1997), The Complete Home Decorator, Annes publishers Ltd.,New york.

**SEMESTER – IV**

**BVID -42**0: **LIFE STYLE ACCESSORIES & FURNITURE DESIGN**

**M. Marks: 75**

**Theory Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To provide an understanding of various styles, systems and products available in the market.
* To enhance the aesthetic perception, materials, design and working parameters in designing products and life style accessories.
* To enhance the knowledge of ergonomics, materials, design and working parameters in designing furniture.
* To develop systematic design approach and space planning through furniture as elements of design.

**COURSE CONTENTS**

**THEORY**

**UNIT –I**

* Accessories – Meaning, importance, Types – functional and decorative,
* Insight of various products and lifestyle accessories in the interiors. Integration of accessories in interior design. Design approaches in product and lifestyle accessories - with a focus on functionality, ergonomics, aesthetics, multiple usages etc.
* Brief study of room settings with the context of decorative accessories complementing the architecture and interior design. Selection and arrangement of accessories.
* Study of materials and processes adopted in designing of accessories. Basic understanding of construction principles, anthropometrics, principles of sizes and proportions, modeling, rapid prototyping, color, texture etc.

**UNIT –II**

* Properties of wood, cane, bamboo to understand material parameters. Wood, cane, bamboo joinery and its strength. Wood/ cane, bamboo/ polishes and other finishes – color and surface quality.
* Furniture categories, role of furniture in interior design. Evaluation of visual design: study of

Gestalt theory of design – law of enclosure, law of proximity, law of continuity etc.

* Human factors, engineering and ergonomic considerations in furniture design. Anthoropometry : Anthoropometric data and special requirements for human needs with relation to movement, functions, furniture and space.
* An introduction of various manufacturing processes most frequently adopted in furniture design.
* Seating Design: Different types of seating with a focus on functionality, esthetics and style.
* Storage systems: Functional analysis of storage systems and thereby different types of cabinets needed for interior spaces – kitchen cabinets, wardrobes, closets, book cases, show cases , display systems etc.
* Modular approach to furniture design.
* Design for middle and lower middle income groups, elements of living units, educational institutes, health clinics, streets etc.

**PRACTICALS**

**M. Marks: 75**

**Duration of Exam: 3 hrs**

-

* Development of the innovative design of any two products/ accessories to specific interiors according to prevailing trends.
* Survey of several modular systems available for different functions in the market. Exploration of different materials and cost criteria for system design.
* Measure Drawing of a Piece of Furniture –Draw (With elevations & other details) on full scale.
* Design kitchen cabinets for a given kitchen.
* Design of Simple furniture’s with Activities – Seating, Working, Sleeping, Storages.

**REFERENCES**

* **Bradley Quinn**- Mid-Century Modern: Interiors, Furniture, Design Details, Conran Octopus Interiors, 2006.
* **Edward Lucie-Smith** , Furniture: A Concise History (World of Art) , Thames and Hudson, 1985.
* **International Design Yearbook**, 1995: Furniture, Lighting, Tableware, Textiles and Products, Books Nippan, 1996.
* **Jim Postell**- Furniture Design, Wiley publishers, 2007.
* **John.F. Pile**- Interior Design, 2nd edition, illustrated, H.N.Abrams, 1995.
* **Joseph Aronson**- The Encyclopedia of Furniture: Third Edition ,1961
* **Karl. T. Ulrich, Steven D. Eppinger**- Product Design and Development, McGraw-Hill Education Singapore; 4th edition, 2007 .
* **Laura Slack-** What is Product Design? Roto Vision publishers, 2006
* **Treena Crochet and David Vleck**- Designer‟s Guide to Decorative Accessories, Prentice Hall, Ist edition, 2008.

**SEMESTER – IV**

**BVGID-411: COMPUTER APPLICATIONS FOR DRAWINGS & GRAPHICS– IV**

***(ONLY PRACTICAL)***

**M. Marks: 175**

**Practical Exam: 140**

**Int. Assessment: 35**

**Duration of Exam: 3 hrs**

**OBJECTIVE**

* To explore computer modeling techniques using CAD.

**COURSE CONTENTS**

**PRACTICALS**

* Use of advanced software and techniques and proficiency in 2D & 3D drawings.
* Dimensioning commands and blocks: Dimensioning the objects in linear, angular fashions along with quick time dimensioning etc. Creating and working with blocks, creating symbols, use of blocks in creating a layout of a residential area.
* Orientation towards 3D : 2D to 3D conversion, perspective view, walk through the layout.
* 3D Interface**:** Compatibility of units with other CAD software, Importing and linking 2D CAD drawings, 3D Studio.
* Rendering and presentation. Printing and plotting.
* Model making of interior scheme- Presentation drawings with different media.
* Lighting –Types of light –point light, spot light, Distant light, Camera –free and target camera. Materials, rendering. Data exchange - import and export of models.
* Design and layout of personal space based on various human activities.
* A portfolio of presentation drawings consisting of plan, 2 sectional elevations & 1-point

perspective of a master bedroom.

* A portfolio of presentation drawings consisting of plan, 2-point perspective & flooring

layout of an executive cabin.

* Basics of Photoshop.
* Basics of Corel Draw.

**REFERENCES**

* **Georgeomura**, Auto CAD, Release 2000.
* **Giuliano Zampi Conway Lloyd Morgan**-Virtual Architecture.
* **GIBBS, BPE publication:**  Teach yourself Auto CAD, New Delhi.
* **Oscar Riera Ojed , Lucast Guerre**- Hyper realistic Computer Generated Architectural Renderings.
* **Parker, Daniel and Rice, Habert**-Inside Auto CAD Daniel, 1987.
* **Teyapoovan. T**- Engineering Drawing with Auto CAD 2000. Vikas Pub House Pvt Ltd, New Delhi, 2000.

**SEMESTER – IV**

**BVG-412: PROFESSIONAL SKILLS-IV\*\***

**M. Marks: 75**

**Theory Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To provide knowledge to the students about organization’s capacity and abilities.
* To develop decision making, planning & organizing, customer centricity, problem solving, analytical and critical thinking skills in students.

C**OURSE CONTENTS**

**THEORY**

**UNIT I**

* Organization’s capacities, national and international e-business practices, national and international laws as applicable to Intellectual Property Rights (IPR) related to design developed; organization**’**sstrengths and weaknesses , culture change practices; management processes; HR policies; stages of team growth (forming, storming, norming, performing); laid down procedure for performance, appraisal system & norms regarding the work ; distribution of work amongst subordinates, record keeping, disposal of old records.
* Decision Making Related to the- Allocation of work and financial viability, team building and their performance.
* Planning and Organizing Related to the - Tasks to achieve targets and meet deadlines; the strategy adopted while allocating work to subordinates for satisfactory organization performance ; reviewing process leading to high performance; tasks to execute as per priority.
* Customer Centricity- Understanding and guiding customer expectations to match contemporary trends and vice-versa; satisfying customer’ s explicit and implicit needs; addressing the problems in a mutual win-win fashion to resolve the problem.

**UNIT II**

* Problem Solving**-** Clarification on the design to be developed with the team members, assessing /evaluating design processes, understanding the problem faced by members in following health and safety procedures; evaluating and seeking and obtaining clarification from the workers, superiors , concerned managers when in doubt regarding the manufacturing of a particular design.
* Analytical Thinking**-** Analysis of the market trends and forecast to develop customized design; analysis of work done by each worker & workers’ behavior amongst each other, worker’s final contribution to the organization during appraisals.
* Critical Thinking **-** Critically evaluate the processes of establishing needs to identify areas of innovation in design, critical point of immediate concerns in terms of team building and performance, working strategy adopted by the workers to complete their task.

**REFERENCES**

* [**Gourav Marwah**](https://www.google.co.in/search?tbo=p&tbm=bks&q=inauthor:%22Gourav+Marwah%22)- Change Management**:**Exploring the Understanding of an

Organization's Capacity to Change.

* **Jonah Lehrer-** How We Decide.
* [**Judith Combes Taylor**](https://www.google.co.in/search?tbo=p&tbm=bks&q=inauthor:%22Judith+Combes+Taylor+Ph.D.%22)**,**[**Rebekah Lashman**](https://www.google.co.in/search?tbo=p&tbm=bks&q=inauthor:%22Rebekah+Lashman%22)**,**[**Pamela Helling**](https://www.google.co.in/search?tbo=p&tbm=bks&q=inauthor:%22Pamela+Helling%22)-Practical Problem-

Solving Skills in the Workplace

* **Thomas Swell-** Knowledge & Decisions.

**\*\* Paper in Common with BVTFD**

**SEMESTER – IV**

**BVG – 413: ECONOMICS FOR BUSINESS DECISIONS\*\***

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory question.

**OBJECTIVES**

* To gain the basic knowledge of economics for taking decisions relating to business.
* To help students to analyze cost of production.

**COURSE CONTENTS**

**THEORY**

**UNIT I**

* Definition, scope and nature of economics, consumption laws, demand & supply analysis, elasticity of demand, indifference curve analysis, consumer surplus and its application.

**UNIT II**

* Factors of production, production function, law of variable proportion, laws of return to scale, elasticity of factor-substitution, production efficiency, engineering production, economies of scales.
* Cost of production, types of costs-economic costs- fixed cost and variable costs, direct and indirect costs, average and marginal costs, implicit cost, opportunity cost; short-run and long-run cost functions, engineering cost function; optimal combination of factor-inputs, risk analysis and decision making.
* Market structure**-** Competitive market, imperfect market, monopoly and oligopoly.

**REFERENCES**

* **David R. Anderson, Dennis J.Sweeney And Thomas A**.Williams Essential of Statistics For Business And Economics( Sixth Edition) .
* **John Sloman And Elizabeth Jones**: Essential Economics For Business (Fourth Edition ).
* **John Sloman, Kelvin Hinde And Dean Garrat** : Economics for Business ( Sixth Edition).
* **Phil Thornto** : Brilliant Economics, Making Sense of The Big Ideas .

**\*\* Paper in Common with BVTFD**

**KURUKSHETRA UNIVERSITY, KURUKSHETRA**

**SYLLABUS FOR**

**B.VOCATIONAL PROGRAMME**

**IN**

**INTERIOR DESIGNING**

**(SEMESTER – V)**

**w.e.f. 2016-17**

**SEMESTER – V**

**Qualifications Pack** – Not Available

**National Skills Qualifications Framework (NSQF) Level –** 7

**Sector -** Furniture and Fittings Skill Council

**KURUKSHETRA UNIVERSITY, KURUKSHETRA**

**SYLLABUS FOR**

**B.VOCATIONAL PROGRAMME IN INTERIOR DESIGNING (SEM – V)**

**w.e.f. 2016-1**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Paper Code** | **Title of the Paper** | **Total Credits/ Semester** | | **Contact Hours/**  **Week** | | **Max. Marks** | | | |
| **Th.** | **Pr.** | **Th.** | **Pr.** | **Theory** | **Exam Duration** | **Practical** | **Exam Duration** |
| BVID-521 | Professional Practice for Interior Designers | 2 | 1 | 2 | 2 | 50 (40+10\*) | 3 hrs | 25 | 3 hrs |
| BVID-522 | Furnishings & Fittings in Interiors  *(Only Practical)* | - | 2 | - | 4 | - | - | 50 (40+10\*) | 3 hrs |
| BVID-523 | Environmental Control in Interiors –III | 2 | - | 2 | - | 50 (40+10\*) | 3 hrs | - | - |
| BVID-524 | Services in Interiors | 3 | - | 3 | - | 75 (60+15\*) | 3 hrs | - | - |
| BVID-525 | Interior Design Studio – III  *(Only Practical)* | - | 4 | - | 8 | - | - | 100 (80+20\*) | 3 hrs |
| BVID-526 | Working Drawings & Details  *(Only Practical)* | - | 4 | - | 8 | - | - | 100 (80+20\*) | 3 hrs |
| *TOTAL* | *Skill Component* | *7* | *11* | *7* | *22* | *175 (140 +35\*)* | *-* | *275 (225+50\*)* | *-* |
| BVGID- 514 | Advanced Computer Applications-for Drawings & Graphics -V  (Only Practical) | - | 6 | - | 12 | - | **-** | 150 (120+30\*) | 3 hrs |
| BVG-515\*\* | Research Methods | 2 | 1 | 2 | 2 | 50 (40+10\*) | 3 hrs | 25 | 3 hrs |
| BVG-516 \*\* | Supply Chain Practice & Management | 3 | - | 3 | - | 75 (60+15\*) | 3 hrs | - | - |
| ***TOTAL*** | ***General Education Component*** | ***5*** | ***7*** | ***5*** | ***14*** | ***125 (100+25\*)*** | ***-*** | **175 (145+30\*)** | ***-*** |
| **GRAND TOTAL** | **Skill Component and General Education Component** | **12** | **18** | **12** | **36** | **300 (240+ 60\*)** | **-** | **450 (370+80\*)** | **-** |
| **300+450 = 750** | | |

**\*Internal Assessment** **- For Theory Papers**, It will be Based on One Test/Seminar= 50 %, One Class Test =25 %, Attendance = 25% - For Practicals, It will be Based on One Seminar/ Test/Workshop/Project/ Training= 50 %, One Class Test =25 %, Attendance = 25%

**One Credit Point for Theory** = 1 Hour Contact Time / Weeks.

**One Credit Point for Practical/ Workshop** = 2 Hours Contact Time / Week.

**One Semester** = 14 to 15 Weeks.

**One Credit**= 25 Marks.

**\*\* Papers in Common with BVTFD**

**SEMESTER – V**

**BVID-521: PROFESSIONAL PRACTICE FOR INTERIOR DESIGNERS**

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To provide understanding to the students in relation to code of conduct in professional practice.
* To gain knowledge in different aspects (Legal, technical , financial, management ) of Interior Design practice.
* To help the students to understand the preparation of quotation and tenders.
* To gain knowledge in estimating and costing of interior projects.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

* Interior Designer & Society- Difference between profession and business; organizations related to interior design profession; difference between designer and decorators; self development of an interior designer; characteristics of a proper interior designer ; necessity of an interior designer, interior designer’s approach to works; ways of getting works; types of works, works partly executed by other interior designers; various precautions to be taken before taking up the work; conditions of engagement between interior designer and client; commencement of work.
* Professional Issues - Professional behavior; ethics, types of clients, contracts, tenders, arbitration etc. as defined in terms of interior design field and current day context; styles of interior design practice; relationship between client and professional; type of fees, process of fee negotiations, billing methods, tax liabilities; contracts – types of contracts , item rate, labour, lump sum, cost plus percentage etc.

**UNIT II**

* Duties of interior designer, interior designer’s relation with other parties such as client, contractor, sub contractors, consultants and authorities; IIID code of professional conduct; scale of charges; units and mode of measurements, clerk for work and his duties, inspection of work, certificate of payment to contractor, bill of quantities, schedule of rates; tenders and quotations –meaning types, preparation of tenders, quotations, contracts, public, limited and negotiated tender documents and allied formalities; preliminary knowledge of Consumer Protection Act and other related acts in interior designing profession.
* Offices for Interior Design Practice- Types of offices; staff structure; filing of records; correspondence and drawings; maintenance of accounts; presentations in meetings; recording minutes of meeting.

**PRACTICALS**

**M.Marks:25**

**Duration of Exam: 3 hrs**

* A report to be prepared by each student after visiting an interior designer’s office. Role of consultants and coordination between different consultants should also be written.

**REFERENCES**

* **Arulmanickam A.P. and T.K. Palaniappan** (1993), Estimating and costing, Pratheeba Publishers, Coimbatore.
* **Christine .M. Piotrowski** , Professional practice for Interior Designers, 3rd edition, Wiley and sons, 2001.
* **Cindy Coleman**,Interior Design Handbook practice, Mc Graw Hill professional, ist ed, 2001.
* **Deshpande, R.S**. (1995) ; Modern ideal Homes for India, Deshpande Publication, Poona
* Day P.G. (1982), A guide to professional architectural and industrial scale model building, Eagle wood clifts, N.J. Prentice Hall.
* Indian Institute of Architects. H.B. Professional Practice , The Architects pub. Bombay.
* Indian Standards Institutions (1983), National building code of India ISI rol, 1 New Delhi, Marak Bhavan.
* **Namavati. H. Roshan**. Professional Practice. 8th ed, Lakshani Book Depot, Bombay, 2001.
* **Ronald Veitch**, Professional practice for Interior Designers, Peguis Publishers, Limited, 1987.
* **Tessie, A**., (1986)- The House, its Plan and Use, J.B. Lippincett, New York.

**SEMESTER-V**

**BVID-522: FURNISHINGS & FITTINGS IN INTERIORS**

***(ONLY PRACTICAL)***

**M. Marks: 50**

**Practical Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To make the students aware about different types of furnishings & fittings used in interiors.
* To help the students to acquire up- to- date knowledge of different types of furnishings & fittings by doing market survey.

**COURSE CONTENTS**

**PRACTICALS**

* **Conduct Market Survey on the Following with Brand Name & Price, Click Photographs , Make a Report /File:**
* Floor Coverings**-**Types of carpets & rugs, natural and man – made fibers carpets, handmade carpets & machine made carpets.
* Types of curtains & blinds, fittings & accessories required for curtains & blinds; valance, swags, tails, tracks, poles and other hardware materials used in curtains and blinds.
* Fittings & fixtures for bathroom & kitchen.
* Sanitary & Hardware.
* Select one interior space of your choice & show the use of different types of floor coverings, wall finishes, window treatment.

**REFERENCES**

* **A.J. Metric** Handbook: Editors Jan, Bilwas & Leslie fair weather.
* **D.K. Ching**- Interior Design Illustrated, Francis
* **Terence Conron**-House Book (The complete guide to Home Design)

Window Fashion, Charles Tirandall

**SEMESTER-V**

**BVID-523: ENVIRONMENTAL CONTROL IN INTERIORS –III**

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To provide basic understanding of climatic types in India and the impact on requirements of building design and site planning.
* To impart knowledge about planning for thermal comfort, day lighting and natural ventilation.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

* Climate and built form interaction.
* Global climatic factors, elements of climate, impact and issues of climatic balance in traditional and contemporary built environments, issues of ecological balance, implications of climatic forces in nature of spaces and forms.
* Patterns of organization and elements of built form at individual building.

**UNIT – II**

* Thermal Comfort and Heat Flow- Thermal comfort factors, physiological aspects.

Body heat balance. Building climatological site analysis, application of comfort diagrams, introduction to basic thermal units, theory of heat flow, heat transmission, thermal properties of materials, human heat balance. Physiological comfort, outdoors and indoors, heat flow within buildings, steady state conditions and periodic flow, thermal performance of building elements.

* Sun and Design Process – Solar charts, sun angles and shadow angles, orientation for sun, sun control, design of shading devices, radiation, glare, solar energy and its technical applications. Climate and material choices.

**REFERENCES**

* **Koeinsberger, O.H. and Others**- Manual of Tropical Housing and Building. Orient Longman, Chennai, 2003.
* **Konya Allan**- Design for Hot Climates.
* **Kukreja. C.P**- Tropical Architecture. Tata McGraw Hill Pub. Co. Ltd. New Delhi, 1978.
* **Markus, T.A and Morris. E.N**.- Buildings. Climate and Energy, Pitman Pub Ltd., London, 1980.
* **Olgay and Olgay**, Solar Control and Shading Devices.

**SEMESTER – V**

**BVID-524: SERVICES IN INTERIORS**

**M. Marks: 75**

**Theory Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To provide information to the students about the principles of water supply and sanitation.
* To help the students to develop the layout, functioning and application of utilities and services in the interiors.

**COURSE CONTENTS**

**THEORY**

**UNIT - I**

* Water Supply- Domestic water systems, pipes and their sizes and jointing, types of fittings; faucets- for kitchens, bathrooms and toilets; valves- foot valves, sump pump check valves etc.
* Sanitations and Disposal of Waste Materials from Buildings - Principles of sanitation, connection to outdoor drainage system, size requirement calculations, types of pipes available in the market, water carriage systems, standard sanitary fittings; traps, pipes and their jointing; flushing systems; bathroom interior layouts.
* Refuse- Different forms of refuse garbage; house refuse – its collection, storage and transport, refuse chutes etc.
* Building Wiring System- Service wires, metering distribution boards, circuits, **miniature circuit breaker** (MCB) cutouts, conductors, wiring methods, switch boards, electrical devices in the buildings, light and power circuits.
* Indian Electricity Rules- Provisions of National Building Code (NBC); preparation of electrical layout scheme for an interior using standard electrical symbols.

**UNIT II**

* Air Conditioning- Mechanical ventilation – mechanical inlet and extraction systems.
* Functions of air conditioning- Principles of AC, capacity of AC, calculation of AC loads.
* Types of AC systems –Window AC, split, ductable, central AC and their details.
* Air distribution systems – Ducts, air inlets, noise control of AC.
* Fire – Causes and spread of fire, design considerations for fire safety; devices for firefighting – portable, built in wet riser system, sprinkler system, fire hydrant; class of fire and occupancy, study of fire regulations as per national building code ( NBC), services for multi storied buildings – lifts, escalators etc
* Vertical Transportation Systems –Lifts, escalators, definition, location, arrangement, structure, drives, traffic analysis, supervisory control, remote monitoring.
* Security and Safety Systems- Designing a security system – burglar alarm, CCTV, central alarm systems, intrusion sensors and space sensors; other services – cable TV, automatic branch exchange  (PABX), computer labs.
* Intelligent Buildings –Meaning, cost analysis, building environment, architecture and people, information technology, communications & artificial intelligence.
* Building Automation and Energy Management –Criteria for choosing the right BAS, open system architecture.

**REFERENCES**

* **Albert Ting-pat So, Wai Lok Chan**- Intelligent Building Systems, Kluwer Academic Publishers, 1999.
* **Derek Clements-Croome, Derek J. Croome**- Intelligent Buildings: Design, Management and Operation, Thomas Telford Books, London, 2004.
* **Dr Frith Abnwos and others**- Electrical Engineering hand book.
* Electrical wiring and contracting (vol. 1 to vol.4), London. The New era Publishing Company.
* **Faber, Oscar and Kell, J.R**- Heating and Air conditioning of Building. Architectural Press, surrey, 1945.
* **Hussain S.K**- T.B of Water Supply and Sanitary Engineering, 3rd ed, Oxford and IBH pub. Ltd., New Delhi, 1994
* **Kshirsagar, S. R-** Water supply engineering, 6th ed, Roorkee publications, 1980.
* **Prasad Manohar**- Refrigeration and air-conditioning. 5th ed, New Age Intl. pub, New Delhi, 1996.
* **Rangwala, S.C**- Water supply and Sanitary Engineering : Environmental Engineering, 19th ed, Charotar pub house, Anand, 2004.
* **William . J. Guinness**- Mechanical and Electrical Systems for Buildings, New York : Mc Graw Hill.

**SEMESTER – V**

**BVID-525: INTERIOR DESIGN STUDIO – III**

***(ONLY PRACTICAL)***

**M. Marks: 100**

**Practical Exam: 80**

**Int. Assessment: 20**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To impart knowledge to the students to understand accessibility and universal design issues.
* To enable the students to develop creative conceptual visualization and the process of design.

**COURSE CONTENTS**

**PRACTICALS**

* Work on –
* Institutional spaces in urban/ semi-urban/ rural contexts with an aim to explore and understand transformation and adaptive re-use.
* Museums/ cultural/resource centers/ libraries/convention centers/ exhibitions etc. that also aim in making a social contribution.
* Recreational spaces such as auditoriums/ halls/ cinema houses/stage design etc. to plan audio visual communication, color and light interaction, sound control system, products and furniture forms.
* Critically analyze the design issues, integration of interior architectural elements to other interior elements, dialogue between the existing and the newly added insert, interpretation of institutional activities and their spatial correlation.

**REFERENCES**

* **Francis.D, Ching & Corky Bingelli**- Interior Design Illustrared, 2nd edition, Wiley publishers, 2004.
* **Joseph D Chiara, Julius Panero, & Martin Zelnick**- Time Saver Standards for Interior Design & Space Planning, 2nd edition, Mc-Graw Hill professional, 2001.
* **Julius Panero & Martin Zelnick**- Human Dimension & Interior Space: A source Book of Design Reference Standards, Watson – Guptill, 1979.
* **Karlen Mark**- Space planning Basics, Van Nostrand Reinhold, New York, 1992.
* Maureen Mitton, Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation Techniques. John Wiley and Sons, 2003
* **Mark.W. Lin**- Drawing and Designing with Confidence: A step-by-step guide, Wiley and Sons, 1993.
* **Maryrose McGowan & Kelsey Kruse**- Interior Graphic Standards, Wiley and Sons, 2004.
* **Neufert Ernest**- Architect‟s Data, Granada pub. Ltd. London, 2000.
* **Oliver Herwig & L. Bruce-** Universal Design: Solutions for Barrier-free, Birkhäuser Basel; 1st edition, 2008
* **Robert Rengel**- Shaping Interior Space, Fairchild Books & Visuals, 2002
* **Robert F. Erlandson**- Universal and Accessible Design for Products, Services, and Processes, CRC; 1st edition, 2007.

**SEMESTER – V**

**BVID-526: WORKING DRAWINGS & DETAILS**

***(ONLY PRACTICAL)***

**M. Marks: 100**

**Practical Exam: 80**

**Int. Assessment: 20**

**Duration of Exam: 3 hrs**

**OBJECTIVE**

* To train the students in the preparation of working drawings for buildings with specific reference to code of practice and incorporating specifications as complementary to the working drawings.

**COURSE CONTENTS**

**PRACTICALS**

* Preparation of Working Drawings –Scales of drawings, methods of giving dimensions and standards on plans, sections, elevations, details etc.
* Preparation of Plans – Architectural plans, furniture layout floor plans with clearances, different level of floor plans, detailed floor plans of each room.
* Elevations and Sections – Detailed sectional elevations of all the walls in the interior with all the required dimensions and specifications.
* Details of all Services – Layouts for flooring, ceiling, electrical, plumbing, lighting, fire fighting etc., toilet details, kitchen details, staircase details, furniture details, interior finishing details, material, color and texture details, fixture and fixing and joinery details.
* Specifications Writing- Writing detailed clause by clause specifications for materials pre and post execution, mode of measurements, manufacturer’s details and specifications etc.
* Manufacturer’s Specifications – Database of manufacturers specifications for the materials based on surveys such as – glass, plywood and laminates, hardware, electrical, wiring, accessories, plumbing fitting and fixtures, flooring, cladding etc.
* Prepare at least two working drawing sets, one for a small residence and one for a large building

**REFERENCES**

* **Fredd Stitt**- Working Drawing Manual, McGraw-Hill Professional; 1st edition, 1998.
* **Leibing. W. Ralph**-Architectural Working Drawings, 4th edition, John wiley and sons, New York, 1999.
* **Kilmer-** Workind Drawings and Details for Interiors, John Wiley and Sons,
* **Macey. W. Frank**- Specification in detail, 5th edition, Technical press ltd, London, 1955.
* **Shah, M.G.; and others**- Building Drawing : An integrated approach to build environment, 3rd ed, Tata McGraw Hill Pub. Co. Ltd, New Delhi, 1996.

**SEMESTER – V**

**BVGID: 514-ADVANCED COMPUTER APPLICATIONS FOR DRAWINGS & GRAPHICS–V**

**(ONLY PRACTICAL)**

**M.Marks:150**

**Practical Exam: 120**

**Int. Assessment: 30**

**Duration of Exam: 3hrs**

**OBJECTIVES**

* To impart knowledge about dimensions to a given scale.
* To enable the students to make a simple working drawing of plan, elevations, cross sectional view of building.

**COURSE CONTENTS**

**PRACTICALS**

* Dimensions – Linear, align, angular, radius, diameter, baseline, continue, leader. Dimension edit, Dimension styles-lines and arrows tab, fit tab, primary units, alternate units, Tolerances.
* Introduction to 3D Modeling – point fixing method – absolute co-ordinate systems, relative cylindrical and relative spherical co-ordinate systems. Types of model –wire frame model, surface model and solid models.
* Standard primitive tools - Box, cone, wedge, torus, cylinder, sphere. Boolean operation –union, subtract, intersect, interference, extrude, revolve.
* Introduction to Sketch Up-Setting of units, types of projection, perspective and parallel, shadow, plains. Basic tool – line, circle, rectangle, polygon, erase, move, paint bucket. Modifying tool- pull, push, follow me, scale and offset; Dimension – measuring tap, protector, linear and angular dimension. Setting of time zone, shadow, camera, scene, walk around, material application. Exporting to the different format. Conversion of format into .dwg , .3ds, collada.
* Introduction to Lumion- [Linking the design model](http://vimeo.com/137126274), [adding objects](http://vimeo.com/137126265), [lighting](http://vimeo.com/137126272), [creating renderings](http://vimeo.com/137129190), [creating animation](http://vimeo.com/137126266). [Creating my lumion virtual tour](http://vimeo.com/137126269). [Revise and reload](http://vimeo.com/137126267), [new rendering technologies](http://vimeo.com/144466801). [Improved depth of field effect](http://vimeo.com/144466934). [Autumn generator effect](http://vimeo.com/144467403), [improved mass move effect](http://vimeo.com/144467891), [expanded and improved entourage](http://vimeo.com/144468106).
* Modelling of any project of student choice.

**REFERENCES**

* Inside Auto CAD.
* **Omura, G**. 2005, Mastering Auto CAD 2005 and Auto CAD LT 2005, BPB Publications, New Delhi.
* **Saxena, S**. (2003), A First Course in Computers, Vikas Publishing house, New
* Teach yourself Auto CAD, GIBBS, BPE publication New Delhi.
* Inside Auto CAD.
* **Omura, G**. 2005, Mastering Auto CAD 2005 and Auto CAD LT 2005, BPB Publications, New Delhi.
* Teach yourself Auto CAD, GIBBS, BPE publication New Delhi.

**SEMESTER –V**

**BVG- 515: RESEARCH METHODS\*\***

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To understand the types, tools and method of research and develop the ability to construct data gathering instruments appropriate to the research design.
* To enable the students to search reference material.
* To enable the students to review, analyze and evaluate research articles/reports.
* To enable students to present facts and figures for discussion.

**COURSE CONTENTS**

**THEORY**

**UNIT-I**

* Research – Meaning & objectives of research. Types of research – descriptive *vs*. analytical, applied *vs*. fundamental, quantitative *vs*. qualitative, conceptual *vs*. empirical.
* Research Problem- Selecting, formulating & defining the research problem. Importance of literature review, primary and secondary sources – reviews, treatise, monographs-patents, web as a source, searching the web, identifying gap areas from literature review & development of working hypothesis.
* Research Design- Need of research design, basic principles, features of good design, important concepts relating to research design, observation and facts, laws and theories, prediction and explanation, induction, deduction & development of models.
* Developing a Research Plan - Exploration, description, diagnosis, experimentation. Determining experimental and sample designs.

**UNIT II**

* Execution of the Research - Sampling methods, observation and collection of data, methods of data collection.
* Data Processing and Analysis Strategies - Data analysis with statistical packages. Hypothesis-testing -Generalization and Interpretation.
* Structure and components of scientific reports.
* Types of Reports – Technical reports and thesis; different steps in the preparation -layout, structure and language of typical reports, Illustrations and tables.
* Bibliography, referencing and footnotes.
* Oral presentation – Planning & preparation. Making presentation – Use of visual aids, importance of effective presentation. Communication of results.
* Application of results and ethics- Environmental impacts, ethical issues.
* Intellectual property rights and patent law.

**PRACTICALS**

**M. Marks: 25**

**Duration of Exam: 3 hrs**

* Making of research proposal on any area of interest.

**REFERENCES**

* **Garg, B.L., Karadia, R., Agarwal, F. and Agarwal**.-An introduction to Research Methodology, RBSA Publishers , U.K., 2002
* **Kothari, C.R**.-Research Methodology: Methods and Techniques. New Age International. 418p,1990
* **Sinha, S.C. and Dhiman, A.K.-** Research Methodology, Ess Ess Publications. 2 volumes,2002
* **Trochim, W.M.K.-** Research Methods: the concise knowledge base, Atomic Dog Publishing. 270p.,2005
* **Wadehra, B.L.** - Law relating to patents, trade mark, copyright designs and geographica indications. Universal La, 2000.

**\*\* Paper in Common with BVTFD**

**SEMESTER-V**

**BVG-516: SUPPLY CHAIN PRACTICE & MANAGEMENT\*\***

**M. Marks: 75**

**Theory Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory question.

**OBJECTIVES**

* To help students to understand components of supply chain and its global applications**.**
* To understand the role of manager in supply chain management.

**COURSE CONTENTS**

**THEORY**

**UNIT I**

* Supply Chain- Definition, components & importance of supply chain, value chain, integrated supply chain, growth of supply chain, strategic decisions in supply chain, participants in supply chain – global applications.
* Role of a Manager in Supply Chain - Supply chain performance drivers - key enablers in supply chain improvement - inter-relation between enablers and levels of supply chain improvement.

**UNIT II**

* Customer focus in supply chain management, buyer’s perspective, supplier’s perspective, stages of development in supplier relations.
* Supply Chain Strategies –Cycle view, push & pull view.
* Achievement of strategic fit through different steps, obstacles to achieving strategic fit.
* Role of forecasting in a supply chain, factors of demand forecast, basic approach to demand forecasting, role of aggregate planning in a supply chain.
* Aligning the Supply Chain with Business Strategy – Supply Chain Operation Research (SCOR) Model –Outsourcing and Third Party Logistics (3PLs) – Fourth Party Logistics – Bull Whip Effect and Supply Chain – Supply Chain Relationships – Conflict Resolution Strategies – Certifications.

**REFERENCES**

* **DK Agarwal**-Textbook of Logistics and Supply Chain Management MacMillan 2003, 1st Edition Page.
* **David Simchi-Levi , Philip Kamiusky-** Designing & Managing the Supply Chain

TATA Mc-Graw Hill.

* **Dr. RP Mohanty & Dr. SG Deshmukh** - Essentials of Supply Chain Management –, Jaico Publishing House.
* **G.Raghuram & N Rangaraj, Mac Millan-**Logistics and Supply Chain Management - Cases and Concepts
* **Janat Shah**- Supply Chain Management- Text and Cases , 1st Edition, Pearson.
* **Martin Christopher**-Logistics & Supply Chain Management: Creating Value-Adding Networks , FT Press.
* **Sunil Chapra & Peter Meindl-** Supply Chain Management, PHI.

**\*\* Paper in Common with BVTFD**

**KURUKSHETRA UNIVERSITY, KURUKSHETRA**

**SYLLABUS FOR**

**B.VOCATIONAL PROGRAMME**

**IN**

**INTERIOR DESIGNING**

**(SEMESTER – VI)**

**w.e.f. 2016-17**

**SEMESTER – VI**

**Qualifications Pack** – Not Available

**National Skills Qualifications Framework (NSQF) Level -7**

**Sector -** Furniture and Fittings Skill Council

**KURUKSHETRA UNIVERSITY, KURUKSHETRA**

**SYLLABUS FOR**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Paper Code** | **Title of the Paper** | **Total Credits/ Semester** | | **Contact Hours/**  **Week** | | **Max. Marks** | | | |  |
| **Th.** | **Pr.** | **Th.** | **Pr.** | **Theory** | **Exam Duration** | **Practical** | **Exam Duration** | |
| BVID-627 | Project Management & Estimation | 3 | - | 3 | - | 75 (60+15\*) | 3 hrs | - | - | |
| BVID-628 | Graphics & Signage | 2 | - | 2 | - | 50 (40+10\*) | 3 hrs | - | - | |
| BVID-629 | Landscape in Interiors | 2 | 2 | 2 | 4 | 50(40+10\*) | 3 hrs | 50 | 3 hrs | |
| BVID-630 | Interior Design Studio – IV  (Only Practical) | - | 5 | - | 10 | - | - | 125 (100+25\*) | 3 hrs | |
| BVID-631 | Project Work**–** Integrated(6-Weeks)  **(Only Practical)** |  | 4 | - | 8 | **-** | **-** | 100 (80+20\*) | 3 hrs | |
| ***TOTAL*** | ***Skill Component*** | ***7*** | ***11*** | ***7*** | ***22*** | ***175 (140+35\*)*** | ***-*** | *275 (230+45\*)* | *-* | |
| BVGID-617 | **Advanced Computer Applications for Drawings & Graphics- VI**  **(Only Practical)** | ***-*** | ***7*** | ***-*** | ***14*** | ***-*** | ***-*** | ***175(140+35\*)*** | 3 hrs | |
| BVG-618\*\* | **Logistics Management** | 2 | - | 2 | - | 50 (40+10\*) | 3 hrs | - | - | |
| BVG-619 \*\* | **International Business Environment** | 3 | - | 3 | - | 75 (60+15\*) | 3 hrs | - | - | |
| ***TOTAL*** | ***General Education Component*** | ***5*** | ***7*** | ***5*** | ***-*** | ***125 (100+25\*)*** | ***-*** | ***175 (140+35\*)*** | *-* | |
| **GRAND TOTAL** | **Skill Component and General Education Component** | **12** | **18** | **12** | **36** | **300 (240+60\*)** | **-** | **450 (370+80\*)** | - | |
| **300+450 = 750** | | |

**B.VOCATIONAL PROGRAMME IN INTERIOR DESIGNING (SEM – VI)**

**w.e.f. 2016-17**

**\*Internal Assessment** **- For Theory Papers**, It will be Based on One Test/Seminar= 50 %, One Class Test =25 %, Attendance = 25% - For Practicals, It will be Based on One Seminar/ Test/Workshop/Project/ Training= 50 %, One Class Test =25 %, Attendance = 25%

**One Credit Point for Theory** = 1 Hour Contact Time / Week.

**One Credit Point for Practical/ Workshop** = 2 Hours Contact Time / Week.

**One Semester** = 14 to 15 Weeks.

**One Credit**= 25 Marks.

**\*\* Papers in common with BVTFD**

**SEMESTER – VI**

**BVID-627: PROJECT MANAGEMENT& ESTIMATION**

**M. Marks: 75**

**Theory Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To provide knowledge about working out quantities of different materials and their costs to prepare an estimate of the project before execution.
* To enable the students to prepare schedule of charts for time and budget, to have a control over the project.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

* Introduction to Project Management – Definition, importance, reasons for shortfall in its performance, scientific management, life cycle of project.
* Planning and controlling-, Human aspects, development of project network, critical path, project organization, contracting, procurement and recruitment; budget and fund flow statement, stabilization and finishing .
* Organization of project- Matrix organization, task forces, project teams, monitor and control of project.
* Project management strategies- Tools and techniques for project management. Integrated reporting system, flow diagrams, bar charts, milestone charts. Techniques of monitoring of development works – standard oriented costs control, turnkey system, vertical production method, inventory cost control techniques and unified status, index techniques.

**UNIT II**

* Measurements- Types, modes, methods of taking out quantities preparation of schedule or bill of quantities.
* Rate Analysis - Preparation of various items of work in the interior works.
* SI Measurement System- SI nomenclature methods, dimensional and modular coordination, modules and modes of measurements practiced by various agencies. Specification- Types, specification contents, standards developed by trade and industry, government agencies**.**
* Interior Items Estimation- Manual and through spreadsheet programmes. Specification writing proforma, order writing , scheduling etc.

**REFERENCES**

* **Barbori Balboni**- Interior Cost Data, R.S. Means company, 2001.
* **Carol E Farren**- Planning and Managing Interior projects, Robert Snow Means Company, 2000.
* **Carol Simpson**- Estimating for Interior Designers, Watson Guptill, Rev. Sub edition, 2001.
* **Harold Kerzner**- Project Management : A systems approach to planning, scheduling and controlling, 2006 .

**SEMESTER – VI**

**BVID-628: GRAPHICS & SIGNAGE**

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To impart an understanding of the theory of signs and symbols, gestalt design theory, visual analogy, branding and branded environments and signage and way finding systems.

**COURSE CONTENTS**

**THEORY**

**UNIT – I**

* Environmental graphic design, way finding, need, importance.
* Information Content System – Kinds of sign information, hierarchy of content, developing the sign information content, navigation – message hierarchy and proximity, pictorial information content, signage master plans.
* Graphic System - Typography overview, choosing a typeface, typographic treatment, typographic considerations in signage for non-sighted and low- sighted people, symbols and arrows, other graphic elements, color, layout, overview of signage graphic process.

**UNIT II**

* The Hardware System – Shape, connotations of form, sign mounting considerations, sign size considerations, sign lighting overview, sign materials overview, basic sign materials, electronic message displays, stock sign hardware systems, sign materials and codes, overview of coatings and finishes applied to signs.
* Signage Design – Eyelevel, light, fonts, typographical systems and type area, pictograms, arrows, color – contrast, language, systems, tones, coding, privacy and protection, Room identification.
* Signage Planning – Contract, obtaining information, preliminary design, design, construction, work plan and prototypes, tenders, specifications, on-site management, completion.

**REFERENCES**

* **Andreas Uebele**- Signage Systems and Information Graphics , Thames and Hudson, 2007
* **Craig Berger-** Wayfinding: Designing and Implementing Graphic Navigational Systems, Rotovision, 2009.
* **Chris Calori**- Signage and Wayfinding Design: A Complete Guide to Creating Environmental Graphic Design Systems, Wiley and sons, 2007.
* **David Gibson**- The Wayfinding Handbook: Information Design for Public Places, Princeton Architectural Press; 1st edition, 2009.
* **Joseph DeChiara, Julius Panero, and Martin Zelnik** -Time-Saver Standards for Interior Design and Space Planning, 2nd edition, Mc-Graw Hill Professional,2001.
* **Rayan Abdullah and Roger Hubner**- Pictograms, Icons and Signs, Thames and Hudson, illustrated edition, 2006.

**SEMESTER – VI**

**BVID-629: LANDSCAPE IN INTERIORS**

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least two questions from each unit as well as compulsory question.

**OBJECTIVES**

* To develop a conceptual understanding of landscaping design parameters for various built forms.
* To develop skills in integrating landscape design with built environments.

**COURSE CONTENT**S

**THEORY**

**UNIT – I**

* Landscape Architecture- Types of natural elements – stones, rocks, pebbles, water forms, plants and vegetation. Elements of interior landscape.
* Plants & Landscape Design and Interiors- Types of indoor plants; plant characteristics- biology, soil, moisture, light nutrients, atmospheric conditions, growing medium, pests & diseases. Indoor plants in Indian context.

**UNIT – II**

* Design with Plants –The physical attribute of plants in relation to design. Appearance, functional, visual effects, selection and management of plant material of plants in landscape design and built environment. Design concepts related to use of sculpture, lightings, garden furniture, architectural features and grouping them into meaningful compositions for visual and functional effects.
* Landscaping Design Parameters & Different Types of Built Forms- Indoor and outdoor linkage to spaces. Landscaping of courtyards- residential and commercial forms. Indoor plants and their visual characteristics- color, texture, foliage. Science of maintaining and growing greenery. Flowers in relation to visual perception in various indoor spaces and science of flower arrangement. Automatic irrigation costing and installation of micro irrigation systems.

**PRACTICALS**

**M. Marks: 50**

**Duration of Exam: 3 hrs**

* Conduct survey of plants for interiors , write down their botanical names, properties and cost.
* Visit sites having landscaping designs , click photogaraphs
* **Make a file/report.**

**REFERENCES**

* **Gerald Robert Vizenor** - A Guide to Interior Landscapes, Univ of Minnesota Press, 1990.
* **Hacheat, Blan**- Plant Design.
* **Laurie, Michael**- An Introduction to Landscape. 2nd edition, Prentice Hall, New Jersey, 1986.
* **Nelson Hammer and Mel Green**- Interior Landscape Design, Mc Graw Hill, 1991.
* **Trivedi. P.Prathiba**- Beautiful Shrubs. Indian council of Agricultural Research. New Delhi, 1990.

**SEMESTER – VI**

**BVID-630: INTERIOR DESIGN STUDIO – IV**

***(ONLY PRACTICAL)***

**M. Marks: 125**

**Practical Exam: 100**

**Int. Assessment: 25**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To develop skills for a comprehensive design approach and to integrate dimensions of functions to interior spaces and interior elements of space making.

**COURSE CONTENTS**

**PRACTICALS**

* Make one major design & two minor designs on any of the following which should include interior construction detailing, way finding/signage and graphic identification , decorative accessories, building codes, rendering (Hand and computer generated), custom designed furniture and cabinetry, specification writing, cost estimating , selection of sustainable/green materials -
* Retail design/ healthcare design/ office systems.
* Urban Interiors – Shopping malls/streets/town squares/ fair grounds.
* Interior Ports – Air Ports/ bus stops/ railway stations/boats/ports.
* Exhibition Displays –State level/ national level.
* Mobile Units – Buses/ cars/ railway coaches etc.

**REFERENCES**

* **David Kent Ballast**- Interior Construction & Detailing for Designers and Architects, Professional Publications, Inc.; Fourth Edition, 2007.
* **Francis.D. Ching & Corky Bingelli**- Interior Design Illustrared, 2nd edition, Wiley publishers, 2004.
* **Joseph D Chiara, Julius Panero, & Martin Zelnick**- Time Saver Standards for Interior Design & Space Planning, 2nd edition, Mc-Graw Hill professional, 2001.
* **Julius Panero & Martin Zelnick**- Human Dimension & Interior Space : A source Book of Design Reference standards, Watson – Guptill, 1979.
* **Karlen Mark**- Space Planning Basics, Van Nostrand Reinhold, New York, 1992.
* **Mark.W. Lin**- Drawing and Designing with Confidence: A Step-by-Step Guide, Wiley and Sons, 1993.
* **Maureen Mitton**- Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation Techniques. John Wiley and Sons, 2003.
* **Maryrose McGowan & Kelsey Kruse**- Interior Graphic Standards, Wiley and sons, 2004.
* Mary Jo Peterson, Universal Kitchen and Bathroom Planning: Design That Adapts to People, McGraw-Hill Professional Publishing, 1998.
* **Neufert Ernest**- Architect‟s Data, Granada pub. Ltd. London, 2000.
* **Robert Rengel**- Shaping Interior Space, Fairchild Books & Visuals, 2002

**SEMESTER – VI**

**BVID-631: PROJECT WORK – INTEGRATED (6-WEEKS)**

***(ONLY PRACTICAL)***

**M. Marks: 100**

**Practical Exam: 80**

**Int. Assessment: 20**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To sensitize the student to the technical and socio-economic feasibility of the design project.

**COURSE CONTENTS**

**PRACTICALS**

* The student has to submit a comprehensive project report on the internship done in the industry by integrating the knowledge and skills acquired from all the subjects studied till date. The sub- heads of the report can be :
* Introduction
* Objectives
* Review of Literature
* Methodology
* Results & Discussion
* Summary & Conclusions
* Implications
* References

**REFERENCES**

* **Griff Boyle**- Design Project Management, Ashgate Publishing; illustrated edition, 2003.
* **M.P. Birkett**- An appraisal of project work as an educational tool within interior design education at tertiary level and its relation to professional practice, Royal College of Art, 1985.

**SEMESTER – VI**

**BVGID- 617: ADVANCED COMPUTER APPLICATIONS FOR DRAWINGS & GRAPHICS–VI**

***(ONLY PRACTICAL)***

**M. Marks: 175**

**Practical Exam: 140**

**Int. Assessment: 35**

**Duration of Exam: 3 hrs**

**OBJECTIVES**

* To solve design problems with digital help**.**

**COURSE CONTENTS**

**PRACTICALS**

* Use of advanced software and techniques and proficiency in 2D & 3D drawings.
* Any one design problem-

- 2 D & 3D drawings

- Estimation

- Tender documents

* Make any 3 projects of your choice on 3ds max rendering with V-Ray.

**SEMESTER-VI**

**BVG-618: LOGISTICS MANAGEMENT \*\***

**M. Marks: 50**

**Theory Exam: 40**

**Int. Assessment: 10**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory question.

**OBJECTIVES**

* To provide knowledge about the types of logistics management.
* To provide understanding about some commercial aspects in logistics management.

**COURSE CONTENTS**

**THEORY**

**UNIT I**

* Logistics management- Meaning, importance of logistic management & its Types.
* Factors affecting logistic management- Reliability factors, maintainability factors, supply support factors, transportation, packaging and handling factors, test and support equipment factors, organization factors, facility factors, software factors, technical data, information system factors, availability factors, economic factors, effectiveness factors in an apparel industry.

**UNIT II**

* Types of inventory control - Demand forecasting, warehousing and stores management, routing, transportation management, some commercial aspects in distribution management codification, distribution channel management , Distribution Resource Planning (DRP).
* Logistics in 21st Century.

**REFERENCES**

* **Benjamin S. Blanchard**," Logistics Engineering and Management". Inc Upper saddle river, New Jersey, 2003.
* **Donald J.Bowersox, Davis J.Closs** "Logistical Management - The Integrated Supply Chain Process", Prentice Hall, 2002
* **Douglas M. Lambert, James R.Stotk, Lisa, M.Ellram,** "Fundamentals of Logistics Management"., Prentice Hall, 2002.
* **Martin Christopher**, " Logistics & Supply chain Management - Strategies for Reducing cost & Improving Service", 2nd Edition, 2003.
* **Sunil Chopra, Peter Meindal**, "Supply Chain Management (Strategy, Planning and Operation). Prentice Hall,2001

**\*\* Paper in Common with BVTFD**

**SEMESTER-VI**

**BVG-619: INTERNATIONAL BUSINESS ENVIRONMENT \*\***

**M. Marks: 75**

**Theory Exam: 60**

**Int. Assessment: 15**

**Duration of Exam: 3 hrs**

**Instructions for the Examiner:** The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question. All questions will carry equal marks.

**Instructions for the Candidate:** The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory question.

**OBJECTIVE**

* To create an understanding of the international business environment.

**COURSE CONTENTS**

**THEORY**

**UNIT I**

* Business Environment-Concepts, components and importance, environmental scanning techniques.
* Economics Systems- Economic planning, types of plans, five year plans and planning machinery in India. Liberalization, Privatization, Globalization, Regional Economic Groupings.
* Role of Government in Indian Economy- Monetary policy, fiscal policy, industrial policy.

**UNIT II**

* Licensing- Export-Import Policy, Foreign Investment and Collaborations Multinational.
* Corporations- International Economic Institutions –World Trade Organisation (WTO), United Nations Conference on Trade and Development (UNCTAD), World Bank, International Monetary Fund (IMF).

**REFERENCES**

* **Aswathappa, K**: Essentials of Business Environment, Himalaya Publishing House, New Delhi.
* **Cherunilam Francis**: Business Environment, Himalaya Publishing House, New Delhi.
* **Dutt R. and Sundharam K.P.M**.: Indian Economy, S. Chand, Delhi.
* **Dutt Ruddar**: Economic Reforms in India-A Critique; S. Chand, New Delhi.
* **Justin Paul**: Business Environment, Tata McGraw Hill, New Delhi.
* **Misra S.K. and Puri V.K**.: Indian Economy, Himalaya Publishing House, New Delhi.
* **Saleem Saikh**: Business Environment, Himalaya Publishing House, New Delhi

**\*\* Paper in Common with BVTFD**