Detail Syllabus for B. Des. Specialization in Furniture & Interior (FI) Silpa-Sadana, Visva-Bharati; Sriniketan

Subject CodeSubject Nameof courseinternalexternalfullCreditOutcome of the CourseFI- V/01History of Design*practical2525502To improve the students idea about world design to develop a better productII- V/02Ergonomicspractical2525502The course imparts the knowledge of anthropometry which supports students in designing productFI- V/03Material and processes-Itheory1040504To improve the students in designing productFI- V/04Materials and Product technology-Itheory1040504To improve the students ino designing productFI- V/04Materials and Product technology-Ipractical75751506To improve the students in other designing productFI- V/04Workshop Practice-IIpractical75751506To improve the practical skill related to the material and indigenous). It helps students in better way.FI- V/06Product Design-Ipractical45751506To improve the practical skill related to the material by following certain stepsFI- V/06Product Design-Ipractical45751506It enables student to improve their creatin steps			Nature	Marks				Outgome of the
FI- V/01History of Design*practical2525502To improve the students ide about world design to develop a better productFI- V/02Ergonomicspractical2525502The course imparts the knowledge of anthropometry which supports students in designing productFI- V/03Material and processes-Itheory1040504To improve the students in designing productFI- V/04Materials and Product technology-Itheory1040504To improve the students knowledge about the material as a whole so that a student can put the material into use more iudiciouslyFI- V/04Materials and Product technology-Itheory1040504To improve the students knowledge about the material as a whole so that a students knowledge about the material as a uther into use more indigenous). It helps students to work in industries in better way.FI- V/04Workshop Practice-Ipractical75751506To improve the practical skill related to the material by following certain stepsFI- V/06Product Design-Ipractical45751506It enables student to improve their creativity in designing small products	Subject Code	Subject Name	of course	internal	external	full	Credit	Course
FI- V/02Ergonomicspractical2525502The course imparts the knowledge of anthropometry which supports students in designing productFI- V/03Material and 	FI- V/01	History of Design*	practical	25	25	50	2	To improve the students idea about world design to develop a better product
FI- V/03Material and processes-Itheory1040504To improve the students knowledge about the material as a whole so that a student can put the material into use more judiciouslyFI- V/04Materials and Product technology-Itheory1040504To improve the student can put the material into use more ipudiciouslyFI- V/04Materials and Product technology-Itheory1040504To improve the students knowledge 	FI- V/02	Ergonomics	practical	25	25	50	2	The course imparts the knowledge of anthropometry which supports students in designing product
FI- V/04Materials and Product technology-Itheory1040504To improve the students knowledge about the material and its production indigenous). It helps students to work in industries in better way.FI- V/05Workshop Practice-Ipractical75751506To improve the students to work in industries in better way.FI- 	FI- V/03	Material and processes- I	theory	10	40	50	4	To improve the students knowledge about the material as a whole so that a student can put the material into use more judiciously
FI- V/05Workshop Practice-Ipractical75751506To improve the practical skill related to the material by following certain stepsFI- V/06Product Design-Ipractical45751506It enables student to improve their creativity in designing small productsTotalImage: state s	FI- V/04	Materials and Product technology-I	theory	10	40	50	4	To improve the students knowledge about the material and its production (industrial or indigenous). It helps students to work in industries in better way.
FI- V/06Product Design-Ipractical45751506It enables student to improve their creativity in designing small productsTotal50024	FI- V/05	Workshop Practice– I	practical	75	75	150	6	To improve the practical skill related to the material by following certain steps
Total 500 24	FI- V/06	Product Design-I	practical	45	75	150	6	It enables student to improve their creativity in designing small products
		Total				500	24	

Semester – V

Subject name: History of design

Course objective & content: On satisfactory completion of the course, the students will have a comprehensive understanding on the world history of design on different Design related fields since classical period. They shall also go through different school of thought in contemporary design since Industrial Revolution till the beginning of 21st century including design in India.

Classical Style of the West: i) Egyptian Style – Belief in life after death – Abundant labour leading to monumental scale – Design Study. ii) Classical European Style – Greek – Abundance of high quality limestone & marble – Scarcity of hardwood – Human scale – Extrovert space – Orders: Doric, Ionic, Corinthian – Study.

iii) Roman – Introduction of different quality of stone, Fired bricks, improved mortar, stucco & marble veneering; Knowledge of arch, barrel vaults etc leading to arcaded architecture, Grandeur & monumental scale – Introvert space – Orders added: Tuscan and Composite or Roman – Study. iv) Gothic – Mystic interior – Pointed Arches & Vaults – Flying buttress etc.

v) Renaissance Style: Reformation movement – Revival of classical learning resulting in symbolism, plain forms with uncluttered interiors – Increasing refinement – Barooque movement – Freedom of detail.

Classical Style of the East & Far-east: i) Buddhist Style ii) Japanese Style, iii) Chinese Style, iv) Hindu Style, v) Islamic Style – Indo-sarasanic style.

Industrial revolution era; i) Industrial revolution: Impact; New social outlook; Victorian attitude; New need, new material and new methods of production.

ii) Art & Craft movement that took place in England in late 19th century for reviving handicrafts and reforming architecture by using traditional building crafts & local materials.
iii) Art Nouveau: Decorative movement that took place in Europe - Flowing & sinuous

naturalistic ornaments – Avoidance of historical traits - Study of the style.

Modern Movement: i) Chicago School - Form follows function.

ii) Prairie School: Organic Style – Frank Lloyd Right - Local material & local characteristics – Technology in the service of humanity - Modern style with a human face – Study.

iii) Bauhaus School: Functionalist in approach leading to rational simplicity – Antiornament ethics: absolute plainness of blocks – Study.

iv) International Style: Coined by Philip Johnson in 1932; Global uniformity – Standardization of elements and components – Asymmetrical compositions - Study.

Counter Movements to Modernism: i) Expressionism – Tired of plain surfaces – Closure to sculpture.

ii) Art Deco: Decorative and Industrial Art in 1925 – Use of motifs from the past – Study.

iii) Local heritage - Santiniketan Style (Art Deco)

iv) Ulm

v) Brutalism: Exposed concrete – Roughness – Over emphasis of chunky members.

vi) Tensile structure, Shell, Domes, Space frame etc.

• **Post Modernism:** Robert Venturi, Memphis – Ettore Sotsus – Less is Bore – Attacks modernist orthodoxy to come in terms with popular culture – Study.

Subject name: Ergonomics

Course objective & content:

Effective and optimum utilization of human energy and resources while designing & using manmade product and systems is of utmost importance to a designer. Knowledge on

Ergonomics would provide us scientific information on how to device "better and user friendly design for the people". It is an important area of studies in a design discipline.

To develop awareness on incorporating Anthropometric data's while designing and introduce the principles of Ergonomics with reference to Human interface with products, & systems, capabilities and Limitations.

- Principles of Ergonomics; Elementary Anatomy and Physiology of Human Body and its Structure:- The Skeletal system, Distribution of bone in a skeleton and vertebral column.
- Classification of Human body: and their characteristics.
- Anthropometry:- its importance; Anthropometric dimensions; Static & Dynamic Anthropometry. Applied Anthropometry; Application of anthropometric data in design.
- Product design guidelines and related social behavior:- User-Product interface and work relations;
- Posture and its importance Science of sitting, Principle of seat, back & hand rest design with respect to spinal column and vertebra, weight distribution.
- Varied work surface, preferred height for seated and standing postures, Functional arm reach, and horizontal work Zones.
- Ergonomic factors to be considered while planning & designing interior / work stations.

Subject name: Materials & Processes-I

Course objective & content:

In modern era, human taste and demands are changing faster. Along with technological advancement, the uses of solid wood have become confined, so we need to have knowledge on wood as well as substitutes of wood & other natural materials that are in high demand and used as principle material in furniture & Interior work. After learning this course student would learn to use the material judiciously.

To impart necessary technical knowledge, information & understanding on Wood, its growth, structure, function, different species, availability, their properties, limitation and use. Due to the scarcity of solid wood, which we are facing and likely to face in near future, the student would also learn about wood by-products like plywood along with MDF, particle board and other factory made industrial board, their manufacturing process, properties, limitations and application. Student would also learn about some indigenous traditional materials like cane, bamboo and grass their properties and limitations.

- Introduction of Wood, Its importance as renewal natural resource- Source, Procurement.
- Anatomy of wood (Cell structure, annual rings, heart and sap wood, cambium, medullar rays etc.)
- Properties of wood: Grain, Texture, rate of growth, specific gravity, moisture contains, shrinkage, special Characteristics, fire resistance, electrical, thermal & acoustical properties; Defect of timber- knots, checks, shakes, destructive agencies & decay preservation, Seasoning of timber;
- Wood By-Product & composite- Ply Wood, Block Board, Hard Board, Chip Board, Massonite Board, MDF, Laminates & Laminated board etc.
- Adhesive (Chemical adhesive, Animal glue, Epoxy resin etc.)
- Indigenous Natural Material- i). Cane & Bamboo and human relation.
- Bamboo- Cell formation, anatomy, Types and properties.

- Different types of grass fiber
- Finishing materials such as sand paper, water paper, emery paper, etc.
- Polishing, Lacquering & Varnishing materials

Subject name: Material and Product Technology-I

Course objective & content:

A student of Furniture & Interior Design must develop an understanding of Hand tools, Power Tools & Equipments along with different types of fixtures, hardware and fittings and other tools used in the trade.

An introduction to the operation and technique of different hand tools and power tools, fittings and fixtures associated with wood product. Student would learn to use these tools in a systematic way and precaution measures to be followed using these tools and would develop overall understanding of different types of production techniques used in furniture making.

- Terminology used in furniture constructions.
- Different types of Joints, its importance and application in Furniture Technology; Methods of employing in furniture construction - their merits & demerits.
- Strength of furniture / materials in various similar and combination of joints.
- Structural sections, proportion, size and structural composition of frame, partitions, and in furniture construction.
- Wood working hand and machine tools, tools for allied materials their applications in different production techniques.
- Power operated portable tools and their operation-Classification, system, use
- Hardware, Fixture & Fittings and accessories including Nail, screw, Hinges, Lock, knob, Nut & bolts, fastener, hinge, locks, latch, ball-catch, bracket, caster wheel, sliding channel etc.
- Workshop technology of furniture & cabinet making & methods of full size layout by showing all constructional details of the products to be executed in workshop practice.
- Doors terminology, types of doors timber paneled, ply / block boards flush doors, timber battened door; Constructional details.
- Window Glazed, paneled timber windows.

Subject name: Workshop Practice -I

Course objective content:

Behavioral understanding of wood, wood by- product and other natural materials could only be obtained through workshop practice by application of tools & equipments on them and executing related functional products.

To develop hands on skill with wood, wood-byproduct and other natural materials and to gain practical knowledge of executing and finishing of various furniture and artifacts made of (Wood & Natural materials).

- Basic exercises: Marking, Planning, Sawing, Chiseling, Filing etc.; Applications of different types of joints through execution of simple furniture like- rack, bookstand, shelf, stool etc.
- Use of different types of hand tools & machine tools, portable power tools
- Scope and limitation of a machine process as well as hand process in relation with the material and article to be executed.
- Practice in wood turning & Patternmaking
- Exploration of existing Cane & Bamboo joineries & their application in furniture making.
- Execution of different types of Products & Artifacts as per given sample (s) including turning, inlay, mosaic, curving etc.
- Application of French polish, Wax polishes, Varnishing and Lacquer coating.

Subject name: Product Design-I

Course objective & content:

This course would provide opportunity for students to develop understanding of the relationship between different courses learnt in the previous semesters and apply the same in designing and making useful furniture and artifacts. Student will expand their understanding of applied and theoretical inputs, principles and processes involved in creating design solutions.

The basic objective would be to ignite the potential of student's creative ability by enabling them to design / redesign / improve and develop furniture and artifacts made of (Wood & Natural materials) that has a social relevance. It also should provide a test of real life problem that a student may encounter in the near future. This would also provide professional experience on designing & making products & artifacts.

- Furniture Design process & Methods
- Designing of Furniture & Artifacts with the help of basic material wood and wooden byproduct and other natural material / indigenous material following design process with the help of study of existing product(s), market survey, information collection, user survey & feedback on existing products, related field work after due consideration of form, function & utility, ergonomics, aesthetics, economy & availability of raw material and preparation of presentation materials like i) Final design brief, ii) Concept drawing, iii) Final design drawing / Perspective / Model / Prototype / Working model, Report etc as per given assignments.

Semester – VI

			Marks				
Subject	Subject Name	Nature	internal	external	full	Credit	Outcome of the Course
FI- VI/01	History of Furniture- Interior & Artifacts	theory	5	20	25	2	To improve the students knowledge in history of furniture along with interior so that they can put this knowledge into- understanding an existing product and subsequently transfer its essence in creating a new product
FI- VI/02	Computer Aided Design & Drawing	practical	25	25	50	2	The course imparts the knowledge of Auto CAD to students to develop their skill in computer aided 3D drawings and layouts
FI- VI/03	Materials & Processes – II	theory	10	40	50	4	To improve the students knowledge about the material as a whole so that a student can put the material into use more judiciously
FI- VI/04	Material and product Technology-II	theory	10	40	50	4	To improve the students knowledge about the material and its production (industrial or indigenous). It helps students to work in industries in better way.
FI- VI/05	Workshop Practice– II	practical	75	75	150	6	To improve the practical skill related to the material by following certain steps
FI- VI/06	Product Design – II	practical	75	75	150	6	It enables student to improve their creativity in designing small products or range of products
lotal					4/5	24	

Subject name: History of Furniture-Interior & artifact

Course objective & content:

With the change of time, space and culture, new design evolve in the society, which is a spontaneous process interlinked with human behavior, availability of material, techniques, skill and capability with passage of time. It is needless to mention that history plays a significant role in developing and formulating future direction of a creative endeavor like designing Furniture-Interior & artifact.

On satisfactory completion of the course, the students will have a comprehensive understanding on historical development of furniture-interior and other related fields from early Egyptian to contemporary European, American, Indian & Far eastern countries and about different period style, their specialty and work of eminent designer. They shall also study different school of thought in design since Industrial Revolution up to the beginning of 21st century including design in India.

1. Europe (Till 1800 AD)

- Gothic
- Italian Renaissance & Baroque
- French Renaissance Baroque Regency and Rococo
- English Renaissance Restoration William Mary and Queen Anne
- Colonial Period England—Jacobean Georgian and Victorian; France—Louis XIV (Rococo) & XV; Early American.
- Federal Period American— Hitchcock & Empire, Louis XVI (Neoclassical), Chippendale, Adam Brothers, Tudor, Jacobean, Regency, Sheraton
- 2. Indian-Buddhist Furniture-(Vaharut, Sanchi and Golden age of Furniture & Interior),
- Far East--China, Japan-
- Islamic style.
- 3. 19th century: French Empire, English Regency, Revivalism & Biedermier; Windsor Chair.
- 4. Modern Period -(20th century):
- Art Nouveau and Arts & Crafts Movements (New Constructions & Material), Industrial Revolution, Mass-produced domestic furniture (Modern society & culture; Social & psychological context; General changes in the structure of the industry, technology & culture), Deutscher Werkbund (Start of Industrial Design). Shaker Furnitue & Thonet's Bentwood Furniture.
- The Bauhaus, Craft revival etc. Study of Mies Vader Rohe, Le Corbusier, Frank Lloyd Wright,
- Scandinavian movement: Alver Alto, Arne Jacobsen, Kjaerholm Poul, Klint Karre
- Minimalism & High-tech (Erro Saarinen, Charles Eames)
- Post-modern Style Ettore Sotsus
- Rathindranath Tagore & Santiniketan style (Art Deco) of Furniture, interior and Artifacts.

Subject name: Computer Aided Drawing and Design

Course objective & content:

New technology has had a profound effect on the three-dimensional design professions. Processes, such as rendering, prototyping, or basic stress analysis, can now be completed by an individual designer without the support of a variety of specialists. An experienced designer can now be informed on the implications of any design decision with greater speed. The optimization of the design process has clear advantages in an industrial and commercial context. Development time and costs can be reduced while retaining quality and reliability. Finite element analysis enables an accurate prediction of performance prior to production. Prototypes can then be constructed by rapid prototyping or CNC machining in appropriate materials to allow performance testing.

To provide students with a practical experience and a theoretical understanding of a variety of three dimensional computers aided industrial design and digital media. Through this Course module students will know to appreciation of the ways in which these different media can assist effective, dynamic for design representation. To enable students to plan appropriate strategies to build effective digital models to represent design contexts. The 3D Design course is intended to offer students an introduction to the world of computer generated 3-D modeling. As an introductory course, it provides a basic understanding of the skills and techniques employed by 3-D designers in a wide range of applications.

Project based learning will enable you to gain an understanding of approaches to sustainable and eco-oriented design. Learn modeling skills evolve, this will learn about textures, rendering, lighting and settings, camera views, camera shots, optics and different media formats. You will gain a sound understanding of the various 3D object formats and output options necessary for different industry purposes.

The module is designed to introduce students to three dimensional computer aided design and digital image manipulation. The intention is to provide students with knowledge, insight and skills in the use of digital tools and produce a creative and strategic approach to the effective application of this media within the design process.

It is intended to consolidate skills in design visualization and solid modeling. The course encourages a critical and evaluative approach to 3D modeling to be developed to allow students to select the most appropriate for the task at hand. Through set task(s) the students engage in a focused 3D CAD modeling exercise(s) that sees surface and solid modeling critically evaluated in terms of overall appropriateness in the replication of a given artifact. In this course students will explore basic mesh modeling, applying textures and materials to 3-D objects, lighting, and rendering. This course introduces you to 3Dmodelling. It focuses on the basic elements of the 3D-modeling process and how to model complex 3D objects using industry standard software. At all times, students work in the context of the design and development of 3D products and such, in which both external form and internal components are designed and developed. In addition students will have developed enhanced presentation skills.

The module is a Computer lab based practical exercise using IT and multimedia resources for teaching, learning and assessment. The module consists of:

- Introduction to CAD principles.
- Introduction to and experience of appropriate three-dimensional software.
- Build complex 3D solid models any object.
- Understand top-down modular assembly design and large assembly management
- Utilize freeform surfacing to produce complex geometry parts
- Development of two-dimensional CAD software experience for presentation.

- Introduction to and experimentation of three-dimensional surface modelling software.
- Create sequences to fit in any format of computer modeling.
- Post Process 3D-CAD data and transfer it to 3D modeling format.
- Obtaining traditional orthographic projection drawings from 3D assembly and piecepart models.
- Organization of 3D methods. Model names, model splitting, layers and issue levels.
- Concentrating on the visually spectacular such as meshes and photo-realistic renderings.

Subject name: Materials & Processes-II

Course objective & content:

Our taste and demands are changing faster. Metals & Alloys have been playing a significant role in furniture making industry since Industrial revolution. Various innovative maintenance-proof finishing techniques have also been evolved and used on such furniture & system. Along with technological advancement, the uses of metal and its alloy, glass, acrylic and glass fiber is spreading and has become a way of our life. After learning this course student would learn to use the material judiciously

To know the metal and its alloy, glass, acrylic and glass fiber, its occurrence in detail their properties and limitation.

Metal is most contemporary material in economic, availability

- Different types of Metal-Steel and alloy and their availability. Aluminium, Copper, Brass-Casting, Bending, Welding, Soldering etc.
- Glass, Acrylic & Glass fiber:
- Finishing of Furniture: Different types of and other finishing techniques for Wood & Metals (Putty, primer, Fillers, base, Paints & pigments, lacquering, enameling, Electroplating) etc.

Subject name: Material and Product Technology-II

Course objective & content:

An introduction to the operation and technique of machines associated with manufacture of wood product. Student would learn to use these machines in a systematic way and precaution measures to be followed using these machines. Further they would learn about bonding agent both synthetic and natural.

After learning this course student would develop an understanding of different machines and adhesives and so that they can apply them in their product manufacture judiciously.

- Machine tools-Turning, Band Saw, Drill, planner, Zig saw, Sander, Angle Grinder etc-Operation System.
- Different types of adhesive-Natural, Synthetic adhesive.
- Advance hardware for Modular, Portable, Knock-down, folding and Multi-use/purpose,

Subject name: Workshop Practice-II

Course objective & content:

To develop manufacturing skill of student with available contemporary material and technical know- how.

Course relevance: developing the self confidence among students to carry out individual and team performance.

- Execution of product- Related to material &Product technology.
- Furniture designing on plank, cabinet work, frame structure in beveled angle product.
- Turning, Inlay, Carving work etc.

Subject name: Product Design -II

Course objective & content:

Student will investigate; analyze historical, contemporary and future design issues, ideologies and approach. Student will explore and connect ideological concept with their own design application.

Course relevance:

To develop creativity among students. This course will also teach leadership quality by which students can assimilate material, technology and manpower for betterment of design.

- Designing of product basic material wood, wooden by product, Metal &Glass-Full size/ Model.
- Technique: Inlaying, Carving, Eachaing, Casting and different types of surface development, pipe bending, welding, bar, channel

Semester – VII

Subject	Subject Name	Nature of	internal	external	full	Credit	Outcome of the
Code		course					Course
FI-	Quality	theory	10	40	50	4	It enables students
VII/01	Assurance &	licory	10	10	50	•	with the knowledge of
v 11/ 01	Costing						costing of a product
	Costilig						that helps them in
							pricing their own
							designed product and
							valuation of existing
							product in market
EI	Finishing	theory	5	20	25	2	It imports the
$\frac{1}{1}$	Matorials 8	uncory	5	20	25	2	knowledge of surface
V11/02	Tachniques &						deservation or surface
	Techniques						finishing in terms of
							traditional and
							industrial propose. It
							musthal process. It
							will help them while
EI	Mataniala 9	41	10	40	50	4	
FI- VII /02	Materials &	theory	10	40	50	4	To improve the
V11/03	Processes – III						students knowledge
							about the material as a
							whole so that a student
							can put the material
							into use more
1.11		1	10	40	50		judiciously
FI-	Materials and	theory	10	40	50	4	I o improve the
V11/04	Product						students knowledge
	Technology-III						about the material and
							its production
							(industrial or
							indigenous). It helps
							students to work in
							industries in better
T T		D 1 1	-		100	4	way.
FI-	Studio Practice-	Practical	50	50	100	4	To improve the
VII/05	111						practical skill related to
							the material by
	D 1						tollowing certain steps
FI-	Product	practical	/5	/5	150	6	It enables student to
V11/06	Design-III						improve their
							creativity in designing
							small products OR
							range of products OR
							theme based products
Total Credits					425	24	

Subject name: Quality Assurance and Costing

Course objective & content:

A definition of quality- ISO- quality assurance, quality control; standardization- levels and advantages; quality specification- specification limits, specification quality loop- ISO standards-ISO 9000 family; market research; marketing; manufacturing engineering- product development.

Estimation process and costing in interior design, how to quantify various items of workdifferent types of estimation we need to prepare – the factors in deciding rate of particular item of work; abstract of estimate- types of costing- various components of product manufacturing cost.

Costing pattern followed in Silpa-Sadana in deciding selling price; job cost summary card- the different way of working out pricing of a product.

Professional practice and scope of work in interior design- role of an interior designer- designers responsibilities to a client- clients responsibilities- terms and conditions with guidelines on accepting a professional design project- methods of charging design fees.

Subject name: Finishing Materials & Techniques

Course objective & content:

Paints and varnishes- introduction to interior and exterior paints, primer for wood and metal surfaces and their application (oil, enamel, acrylic washable distemper, plastic emulsion, cement, aluminium and Bituminous)- putty, fillers and its preparation- types of stain- varnishing-lacquering- laminating etc.

Walls and ceiling- white wash, color wash, surface preparation, priming, wall putty, plaster of paris, distempering, painting- façade; stone finish, pebbled etc – application of wall paper, natural and indigenous material.

Flooring- selection of flooring, natural stone, granolithic flooring, parquet flooring, rubber flooring, timber flooring

Textile materials and accessories- furnishing fabrics, upholstery, drapery/ curtain and their fixing- types of venetian blinds- floor covering materials, carpets, durries- cotton/ jute based carpet, coir mat, chatai etc

Finishing work on metal surface- metal plating- enameling, brushed and buff polish- powder coating, hot blackening, galvanizing, sand blasting, anodizing.

Aesthetical aspects- visual effects, psychological aspects- color scheme planning- pattern and texture planning- market survey- decorative work; mural, wall hangings, partition screen, moldings, stained glass- methods.

Subject name: Material and Processes-III

Course objective & content:

Natural stones- source- geological and chemical classification- use of stone as construction materials- characteristics- granite, ballast, limestone- kota, cuddappa, marble, slate, selection of stones for interior and architectural work.

Artificial stone- cast stone, mosaic tiles, terrazzo work- advantages

Building materials- cement- different types and uses- mortar- cement, concrete, aggregate, classification and grading- standard mix of concrete- lime classification of lime- uses of lime- surki, fly ash brick and comparative analysis with clay brick.

Stone masonary- selection of stone for stone masonary, tools used in stone masonry- general principles in the stone masonry construction- types of stone masonry- rubble and ashlar

masonry.

Bricks- classification and grade of bricks, first class, second class and third class bricks and their properties- guidelines for checking the quality of bricks, different form of bricks- special types of bricks.

Brick masonry- general principles- classification of bond- stretcher bond- English bond- header bond and Flemish bond.

Plastics- characteristics and uses of plastics- types, thermoplastics and thermosetting plastics, various plastic products, pipes, tapes, tubes and basins, door and windows, water tank, partitions- specification and their uses- advantages of plastics

Glass- constituents, classification, plain and frosted glass, textured and patterned, toughened and bullet proof tinted, smoke and decorative glass- use and specification and optical properties of glass (insulated glazing, anti reflective coating, mirror).

Ceramic materials and products- earthenware, stoneware, porcelain, terracotta, glazing tiles, types of tiles, thermal care of tiles, glazed tiles, fully vitrified tiles, roof tiles, special requirements for floor, wall and roof tiles, sanitary application.

Metals- types of metals used in construction- cast iron, steel, aluminium, G I stainless steel, market forms of steel, steel for reinforced concrete.

Composite materials- reinforced cement concrete, acoustic materials, FRP

Subject name: Materials and Product Technology-III

Course objective & content:

Concept of structure used for construction of building/ furniture- different types of construction work- various form of services rendered by an interior designer- types of building structure- load bearing and framed structure

Civil and Architecture- terminology used in building construction

Building construction work and methods- foundation work for load bearing wall, strip footing, simple footing, stepped footing, plinth beam and plinth protection- combined footing, raft or mat foundation, mud mat, PCC/RCC flooring in ground floor, floor finish, skirting- dado, external wall, internal wall- door and window opening window sill- corbels- formwork, shuttering and reinforcement cover for RCC work, plastering and pointing

Stair and staircase- arches and lintels, different types of arches, vault and dome- construction details and terminology, curtain wall, false ceiling, railings, gates and grill- interior services- water supply sanitation and plumbing system- house, plumbing materials. Thermal insulation- electrical survives and lighting- electrical layout plan, graphic representation of various electrical points.

Subject name: Studio Practice-III

Course objective & content:

Studio practice: building drawing and basic knowledge of architecture including staircase, toilet and kitchen, plans and elevations and sections of different types of door, windows and ventilators; framed and paneled (single leaf and double leaf), ledged shutter, ledged and braced shutter- glazed flush louvered, collapsible, rolling shutter and sliding doors- windows- types casement, glazed, corner- pivoted, mosquito proof, ventilator combined with windows/ doorsmetal door and windows- rolling shutter.

Furniture layout drawing- construction detail of partition, false ceiling- 2D and 3d drawing.

Making of scale down models and ply board plastic etc, finishing of model, execution of chair, sofa, table, cabinets with board plank and framed structure

Subject name: Product Design-III

Course objective & content:

Principles used for designing contemporary interior; flexibility, minimalistic, simplicity, subdued look- planning, designing/ selection furniture and accessories- layout design (formal and informal)- hanging of paintings- use of natural, eco friendly indigenous material, built in storage facility

Research based interior design process: introduction, preliminary investigation, site analysis and identification of problem- interactive sessions, information collection, planning designing, layout-lighting design; natural light sources- day, north and light reflector, artificial lighting device-incandescent, fluorescent, high intensity discharge (mercury vapour), gas discharge (sodium vapor light), combustion type, other CFL,LED, solid state, plasma, light fixtures- glare

Semester – VIII

			marks				
Subject	Subject Name	Nature	internal	external	full	Credit	Outcome of the
Code		of					Course
		course					
FI-	Entrepreneurship,	practical	5	20	25	2	
VIII/01	Business						It imparts guidelines
	management and						for start ups.
	marketing						
FI-	Craft	practical	50	50	100	4	Students are guided to
VIII/02	documentation						document certain
							crafts through their
							eyes. It improves their
							ability to visualize a
							whole process through
							nhetography
							videography literature
							review and research
							etc which students
							finds suitable at their
							end to document a
							process.
FI-	Professional	practical	0	50	50	2	It exposes a student to
VIII/03	Exposure	1					a industry or an
	1						organization that
							grooms them
							professionally; imparts
							other pros and cons in
							industries and helps in
							securing a job.
FI-	Elective Paper	practical	50	50	100	4	It exposes a student to
VIII/04	(inter disciplinary						other subsidiary
	products)						discipline in Silpa
							Sadana itself through
							learning and practicing
							a particular process
							discipling in the said
							academic session. It
							helps students to
							transfer this
							technologies and skills
							in their mother
							discipline which
							dispenses the skill of
							developing an
							innovative product.

FI-	Preparatory	practical	50	0	50	2	It enables the
VIII/05	Project work	-					students to
							undergo many
							small researches,
							about various
							topics they are
							interested to take
							for final project. It
							helps them in
							discovering their
							own field of
							interest and skill. It
							also helps them in
							writing a short
							report about their
							research and
							establishes its
							importance.
FI-	Major Project	practical	125	125	250	10	It is the final
VIII/06							performance of
							student. It displays
							their skill in
							developing his final
							project stepwise. A
							final project is the
							reflection of her/
							his understanding
T 10							about designing.
Total Cre	edits				575	24	