

Bachelor of Design (Interior Design) 4 Yr Course

Semester 1

S. No	Course No	Course Title	Periods/Week			Credits	Internal		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 101	Interior Design Studio-I	2	---	6	8	25	15	30	30	100
2	IN 102	Interior & Construction Technology - I	2	---	4	6	25	15	30	30	100
3	IN 103	Interior Graphics I	---	1	2	3	---	40	60	---	100
4	IN 104	History of Interior Design I	2	1	---	3	25	15	---	60	100
5	IN 105	Theory of Design I	1	1	---	2	25	15	---	60	100
6	IN 106	Communication Skills & Personality Development	1	1	---	2	---	40	60	---	100
7	IN 107	Freehand & Measured Drawing	---	1	1	2	---	40	60	---	100
8	IN 108	Model Workshop	---	1	1	2	---	40	60	---	100
9	EN 111	Open Elective-I	2	---	---	2	25	15	---	60	100
	----	General Proficiency									
		Total	10	6	14	30					900

Semester 2

S. No	Course No	Course Title	Periods/Week			Credits	Internal		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 201	Interior Design Studio -II	2	---	6	8	25	15	30	30	100
2	IN 202	Interior & Construction Technology - II	2	---	4	6	25	15	30	30	100
3	IN 203	Interior Graphics - II	---	1	2	3	---	40	60	---	100
4	IN 204	History of Interior Design II	2	1	---	3	25	15	---	60	100
5	IN 205	Theory of Design II	1	1	---	2	25	15	---	60	100
6	IN 206	Form and Design I	2	1	---	3	---	40	60	---	100
7	BS 101	Human Values and Buddhist Ethics	1	1	---	2	25	15	60	---	100
	----	General Proficiency									
		Total	10	5	12	27					800

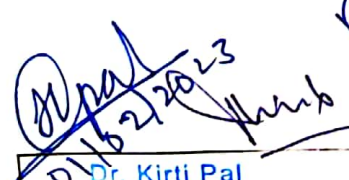


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Semester 3											
S. No	Course No	Course Title	Periods/Week			Credits	Internal		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 301	Interior Design Studio -III	2	---	6	8	25	15	30	30	100
2	IN 302	Interior and Construction Technology - III	2	---	4	6	25	15	30	30	100
3	IN 303	COMPUTER GRAPHICS I	---	1	2	3	---	40	60	---	100
4	IN 304	HISTORY OF Interior DESIGN III	2	1	---	3	25	15	---	60	100
5	IN 305	SERVICES I	2	1	---	3	25	15	---	60	100
6	IN 306	FURNITURE DESIGN II	2	1	---	3	---	40	60	---	100
7	IN 307	CREATIVE THINKING	1	1	---	2	25	15	---	60	100
	----	General Proficiency									700
		Total	11	5	12	28					

Semester 4											
S. No	Course No	Course Title	Periods/Week			Credits	Internal		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 401	Interior Design Studio -IV	2	---	6	8	25	15	30	30	100
2	IN 402	Interior and Construction Technology - IV	2	---	4	6	25	15	30	30	100
3	IN 403	Computers Graphics II	---	1	2	3	---	40	60	---	100
4	IN 404	Working Drawing & Presentation	2	2	---	4	---	40	60	---	100
5	IN 405	Services II	2	1	---	3	25	15	---	60	100
6	IN 406	Product Design - Futuristic & Craft based	1	1	---	2	--	40	60	--	100
7	IN 407	Environmental studies - II	2	1	---	3	25	15	---	60	100
	----	General Proficiency									700
		Total	11	6	12	29					

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Semester 5

Semester 5											
S. No	Course No	Course Title	Periods/Week			Credits	Internal		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 501	Interior Design Studio -V	2	---	6	8	25	15	30	30	100
2	IN 502	Interior and Construction Technology - V	2	---	4	6	25	15	30	30	100
3	IN 503	Computers Graphics II	---	1	2	3	---	40	60	---	100
4	IN 504	Furniture Design and Detailing (Commercial)	2	2		4	---	40	60	---	100
5	IN 505	Services III	2	1	---	3	25	15	---	60	100
6	IN 506	Estimation & Costing	2	1	---	3	25	15	---	60	100
7	IN 507	Interior Design for Special Needs	1	1	---	2	25	15	---	60	100
	----	General Proficiency									800
		Total	11	6	12	29					

Semester 6											
S. No	Course No	Course Title	Periods/Week			Credits	Internal		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 601	Interior Design Studio -VI	2	---	6	8	25	15	30	30	100
2	IN 602	Interior Construction VI	2	---	4	6	25	15	30	30	100
3	IN 603	Interior Landscape	---	1	2	3	---	40	60	---	100
4	IN 604	Restoration & Renovation of Interior	1	2		3	---	40	60	---	100
5	IN 605	Elective I	1	1	---	2	25	15	---	60	100
6	IN 606	UI/UFX	2	1		3	25	15	---	60	100
7	IN 607	Entrepreneurship Development	1	1		2	25	15	---	60	100
	----	General Proficiency									
		Total	9	6	12	27					700

Elective I -

A) Sustainable Design

B) Interior Photography

C) Revitalization of Art Craft




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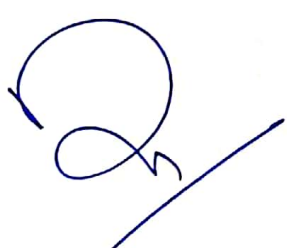
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Semester 7											
S. No	Course No	Course Title	Periods/Week			Credits	Internal		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 701	Thesis	2	---	16	18	---	400	200	---	600
2	IN 702	Professional Practice	2	1	---	3	25	15	---	60	100
3	IN 703	Summer Internship viva	---	---	---	6	---	40	60	---	100
	----	General Proficiency									
		Total	4	1	16	27					800


Semester 8											
S. No	Course No	Course Title	Periods/Week			Credits	Internal		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 801	Internship	--	---	---	18	---	100	100	---	200
	----	General Proficiency									
		Total		18		18					200

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 01/02/2022

Department of Architecture and Planning
School of Engineering
Programme Objectives

Programme: B.Des (Interior Design) (4 Year programme)

The broad objective of the programme is to impart theoretical and practical knowledge to students to prepare them for a professional career in the field of Interior Design. The course at a broad level aspires to widen the horizon of students with exposure of related scenarios in the field of Interior Design to determine the directions of their further development. Interior Design brings meaning to the built environment. It addresses the enactment of life in space. It recognizes the orders - both tangible and intangible, through which human beings occupy space and particularize it to the acts of living and inhabitation. Interior Design encompasses a syncretic outlook built on the understanding of various aspects of life.

Core Courses

Core Courses represent the central learning of interior designing. The program is structured to allow students to understand human habitation by exposure to different contexts through various means like in-class lifelike experiences, field trips, living with craftsmen and case studies encountered at various phases in the student life. These engagements enable the students to be both reflective and responsive designers. The curriculum is designed to facilitate the holistic development of the students with an emphasis on the development of skills, knowledge as well as the critical faculties and rational thinking. Thus, the learning involves simultaneous inputs from theory and workshop subjects that eventually find a synthesis in design exercises undertaken as design studio.

Programme Objectives (PO)

- Student shall be able to acquire knowledge and skill to design interior environment based on human comfort.
- Students shall have an understanding of the relationship between people and buildings, and distinguish between buildings and the environment, thus being able to analyse the methods of investigation and illustrate the preparation of the brief for a design project.
- To prepare graduates to pursue careers as interior design educators, directors of interior design research, and/or practitioners of interior design.
- To contribute to and advance the body of knowledge pertaining to interior design and the built environment

General objectives for Interior Design Studios

- Interior design is about creating the most efficient layout to make the most of a room's potential in terms of use and aesthetics while taking into account the characteristics of the space and the style desired.
- The objective is to arrange the space to optimize the zones with a precise style which corresponds to the needs, the personality and the specific tastes of the owner. The

interior designer must have good taste and creativity to select the right combination of colours, materials, furniture and decoration that will not only produce a beautiful layout, but will manage constraints and ensure that it is functional.

- Interior design will aim to translate the client's ideas and the professional holistic vision in a renovated space combining aesthetics, comfort and practicality.

Programme Outcomes

PO1: Develop critical and analytical understand of real time situation in an interior project and creating ideas of enhancing human relationship with built environment

PO2: Develop a comprehensive design concept based on creative problem-solving research including viable space planning using industry standards

PO3: Create a full set of design documents for an interior design project

PO4: Using critical thinking strategies generate an appropriate furniture, fixture and materials selection considering applicable codes and sustainability (social responsibility)

PO5: Produce a presentation of a fully integrated design project that utilizes visualization software comparable to professional industry standards

PO6: Compose written justification of project designs and verbally communicate design solutions in presentations in an effective and professional manner

PO7: Demonstrate soft skills including: (1) collaboration, creating a positive impact on the classroom (2) positive attitude and work ethic (3) accepting/applying feedback to project outcome and (4) self-direction and follow-through

Program Specific Outcomes

PSO1: Demonstrate critical thinking through a self-reflective process of conceptualization and design thinking that is open to consideration of alternative perspectives by analysing, evaluating, and synthesizing ideas and information gathered through applied research grounded in information literacy.

PSO2: Develop an understanding of client requirements and different aspects of design development from 2d to 3d and aesthetics in a design while keeping command on the design principals.

PSO3: The knowledge and ability to apply a design decision-making process through appropriate technical documentation in a manner that is client-cantered, sustainable, aesthetic, cost effective, and socially responsible.

PSO4: Incorporate technical skills required for interior design project of various scale

Course Educational Objectives and Course Outcomes

Department of Architecture and Regional Planning

B.Des (Interior Design) (4 year programme)

First Semester

Course Educational Objectives

CEO 1: ID101 – Communication Skills with Computers & Personality Development

- To equip the students with the necessary Attitudinal and Communication and presentation skills with or without Power Point Presentation
- Public Speaking
- To train them in developing interpersonal skills

CEO 2: ID103- History of Interior Design (Indian Persian, European)

- To expose the students to the historical facts about the subject.
- To familiarize the students with art factor behind interior space in the past

CEO 3: ID105- Design Fundamentals

- Understand elements and principles of art and design.
- Learn to appreciate art.
- Develop an understanding to the application of art principles in design composition of traditional and contemporary art, architecture and textiles in interior design.
- Develop skill in creating designs and making art objects.

CEO 4: ID111- Interior Design Studio-I

- Orientation of students to the profession of Interior Design.
- Introduction to basic design and the basic understanding of space in Interior Environments.
- Field trips to relevant sites shall be compulsory for all assignments.

CEO 5: ID113- Interior & Construction Technology – I

- To Practically understand the function of important building materials
- Their quality perception and their various application and use at work sites
- To become aware of the existing and new trends and availability of construction materials.
- To learn to make wise selection of suitable building materials for various surfaces.
- To learn to compare the cost of different building materials and make worthy selection

CEO 6: ID115- Graphics & Basic Drawing-I

- To learn the technical skills to present drawing to impress the clients.
- To know the concept of designing 2d & 3d views of the furniture & rooms

CEO 7: ID117- Freehand & Measured Drawing

- To get acquainted with drawing freehand
- To learn the importance of correct measurements in architectural drawings

CEO 8: ID121 – Educational Tour/ Field Visits

- To expose students with the historical and contemporary examples of Interior design projects of famous buildings

Course Outcomes

CO 1: ID101 – Communication Skills with Computers & Personality Development

- To Introduce students and initiate into theory and practice of Computer Applications in Interior Design.
- To familiarize students with computers so as to understand complete management outlook of an architects' office besides Interior drawings.
- To teach graphic applications specially 2Dimensional for fast and attractive presentation of theme and ideas.
- To teach utilization of knowledge of 3D modelling and its application in design.

CO 2: ID103- History of Interior Design (Indian Persian, European)

- Acquire knowledge of principles involved in planning of architectural spaces.
- Develop understanding about building standards and features of construction regarding architectural spaces

CO 3: ID105- Design Fundamentals

- To familiarize students with the process of design in the field of Interior
- To equip students with the fundamentals of Design used in visual and fine art.

CO 4: ID111- Interior Design Studio-I

- Know about the fundamentals of design and development of design vocabulary and to apply the same thought process in development of design.
- Implement the design through conceptualization and organization.
- Enhance the creative skills through creative exercises.
- Understand their surroundings and promoting it as a basic creative instinct

CO 5: ID113 -Interior & Construction Technology – I

- Understanding of Binding materials, their classification, Manufacturing, properties and application process.
- Knowledge of basic construction materials, their characteristics, occurrences or production, classification, properties and uses viz. stone, bricks and other clay products.
- Demonstrate fundamental knowledge of the systems and processes used to construct the building, including an understanding of industry terminology.
- Market surveying and case studies so a student acquainted with the latest construction technology & materials.
- Analyse, troubleshoot, and implement solutions in the field based on knowledge and experience.

CO 6: ID115- Graphics & Basic Drawing -I

- Develop the requisite level of proficiency in drawing with primary communication tool in the practice of Interior designing just like language.
- Familiarize with a range of techniques of expression beginning with manual drawing.
- Familiarize with drafting tools and accessories along with learning drafting, lettering and rendering techniques.
- Know about the comprehension and visualization of geometrical forms and space.

CO 7: IS117- Freehand & Measured Drawing

- Demonstrate an understanding of basic art form & develop perception, the ability to think graphically and utilize drawing as a language of communication.
- Learn the architectural rendering techniques for building exteriors and interiors by using pen & ink, color, values, tones, etc
- To develop a design idea into a coherent proposal and to communicate ideas and concepts through graphical representation.
- Articulate an understanding of visual impact of colors, lines, shapes and textures used in design & construct conceptual and presentation models as a design presentation tool for aesthetic exploration.

CO 8: ID121 – Educational Tour/ Field Visits

- Familiarize with design processes used to achieve comfortable spaces for people in a interior environment
- Students will be exposed to the social, economic background behind a project and the design process used by the designer as a case study.

Second Semester

Course Educational Objectives

CEO 1: ID102 - Principle of Architecture (History, Theories & Terminology)

- To inform about the development of Indian architecture and its contextual and traditional aspects.
- To understand architecture as evolving within specific cultural contexts including aspects of politics, society, religion and climate
- To gain knowledge of the development of architectural form with reference to technology, style and character in various aspects of Hindu architecture.
- To comprehend and analyse spatial character, scale, and structure through historical and traditional built heritage.
- To comprehend and relate to the theoretical basis of historical and traditional Hindu architecture.

CEO 2: ID104- Product Design – Futuristic & Craft based

- Definitions of material, process and product.
- History and examples of product design. Fundamentals of product development cycle.
- Concept of end user. Defining user groups.
- Concept of market. Defining the market gap.

CEO 3: ID110 - Interior Design Studio-II

- To introduce the basics of designing for interiors spaces and to develop skills required for the same.
- Anthropometrics and use of human space requirement in the design of Interior spaces

CEO 4: ID112 - Interior & Construction Technology – II

- The course provides information on the properties, management, specifications, use, application and costs of the materials used in the interiors.
- Physical and behavioural properties, tools and technology of its application in the construction of floors, walls, ceilings, walls, 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 and workmanship, specification etc

CEO 5: ID114 - Interior Graphics- II

- Introduction to art and appreciation of art and its philosophies.
- Familiarization with principles and theories and graphic and architectural composition
- Development of art and graphic skills

CEO 6: ID116 - Furniture Design & Furnishing

- To provide the students' knowledge on History of Furniture Design and various aspects involved in the design of furniture for various spaces.

CEO 7: ID120 – Educational Tour/ Field Visits

- To expose students with the historical and contemporary examples of Interior design projects of famous buildings

Course Outcomes

CO 1: ID102 – Principle of Architecture (History, Theories & Terminology)

- To understand the importance of historical, geographical, religious, social, building materials and construction techniques, climatic conditions in moulding architecture spaces and structures.
- To understand the morphological development of Architecture in India from post Vedic period and confined till Hindu Architecture

CO 2: ID104- Product Design – Futuristic & Craft based

- TO familiarize students about complex nature of simple products,
- Single function products, their material property as function
- Form used as function.

CO 3: ID110 – Interior Design Studio-II

- To explore the interrelationship between human behaviour and space in a small unit environment, including, volume of space, shape, form, function and materials.
- Optimum space planning in the buildings
- Focus on studying patterns with circulation and layout in design of a building.

CO 4: ID112 - Interior & Construction Technology – II

- To equip the students with the knowledge of various materials and techniques used for opening in a building and also about the temporary structures that aid the construction process.
- To grasp the relation between construction materials and their applicability to different types of structures (based on function, form and use).
- Develop a fundamental understanding of material in construction systems and techniques, dimensions and intrinsic qualities that influence the design process.
- Sound Graphical representation of construction techniques through drawing and different rendering medium; develop details and specifications for the design projects.

CO 5: ID114 - Interior Graphics – II

- To work with carpentry tools and equipment's to be able to cut, plane, join, and finish wooden members. Making simple joints used in buildings and furniture and its significance on site.
- Simple exercises to convert metal into desired shapes and forms.
- To understand the process of making building models with various materials such as cardboard, wood, plastics, plaster of Paris and metals, ability to make simple joints in timber, pipes and other materials, basic electrical circuits.
- To familiarize with making of actual scale model from card board, wood, sun pack and general metal etc.
- Ability to prepare course file for workshop activities

CO 6: ID116 - Furniture Design & Furnishing

- To help the students understand about the various anthropometric aspects, human factors & other design criteria involved in the design of furniture's.
- To make the students understand about the various materials & technology involved in the making of furniture's.

CO 8: ID120 – Educational Tour/ Field Visits

- Familiarize with design processes used to achieve comfortable spaces for people in a interior environment
- Students will be exposed to the social, economic background behind a project and the design process used by the designer as a case study.

Third Semester

Course Educational Objectives

CEO 1: ID201 - Design Based on User's Lifestyle Requirement

- To enable the students to take clients' brief to understand their lifestyle and create appropriate design keeping in mind that their design should meet the clients' functional and aesthetic need
- To enable the budding interior designer to see things from client's/user's perspective
- To bring an ecosystem of peer grading and appraisal
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CEO 2: ID203- Colour & Lighting role in Interiors

- To understand the theory of colour
- To understand the application of colour in interiors
- To know the effect of light and colour together on interiors
- To gain insight into the factors to be considered while planning home lighting
- To learn to evaluate the illumination available at task in relation to different activities and plan appropriate lighting
- To know the effect of light and colour together on interiors

CEO 3: ID205- Residential Space Planning

- Acquire knowledge of principles of Interior Design for residential spaces.
- Learn to provide adequate facilities for work, relaxation, comfort, privacy, aesthetics, and maintenance through design and proper choice of materials, services, fittings and fixtures in interiors of residences.
- Gain understanding of furniture design through anthropometric measurements.

CEO 4: ID211- Interior Design Studio -III

- Introduction to human activity and spaces required for activities.
- Introduction to basic building components and their dimensions.
- To appreciate the elements in architectural design of single unit built-up structures.
- Field trips to relevant sites shall be compulsory for all assignments.

CEO 5: ID213 - Interior and Construction Technology – III

- To acquaint the students to building elements like lift, escalator, HVAC, IT and networking in a interior space.
- To familiarize the students with construction techniques and space uses for use of the above elements in building works.
- To familiarize the student with the basic building construction practices on site/yard.

CEO 6: ID215 - Line Sketch with AUTOCAD

- To design and develop a plan with all the detailing through the use of this software
- To help in formulating and customizing designs with proper presentations.

CEO 7: ID217 - Working Drawing & Presentation Technique

- Understand the proper language of the drawing, which is internationally recognized.
- Proper dimensioning & writing style.
- Each & every detail of the organization as per requirements.
- Specifications required as per requirements

CEO 8: ID221 – Educational Tour/ Field Visits

- To expose students with the historical and contemporary examples of Interior design projects of famous buildings

Course Outcomes

CO 1: ID201 – Design Based on User’s Lifestyle Requirement

- Importance of user and their perspective in interior environment
- User and their lifestyle relationship while designing interior spaces
- Learning to giving importance to user requirements in the design.
- Integrating designer ideas with clients social and economic background while designing interior spaces for future.

CO 2: ID203- Colour & Lighting role in Interiors

- Students should acquire knowledge of the various types of lightings to effectively communicate their designs and understand the effect of various lights on colours and textures.
- To help the student understand day lighting and technology of artificial lighting.
- To equip the student to understand and successfully apply lighting techniques with colour effects.

CO 3: ID205- Residential Space Planning

- Understanding the concept of residential space and ability to differentiate between built and natural space.
- Understanding human behaviour in the designing residential spaces.

CO 4: ID211- Interior Design Studio -III

- To apply the learning of the previous semesters.
- To teach students to map gathered information of visited physical setting
- To transform the human behavioural needs into architectural program requirements.
- To compose the architectural spaces in a design project

- To develop sensitivity towards informal settings and elements of built space.

CO 5: ID213 - Interior and Construction Technology – III

- To equip the students with the knowledge of various materials and techniques used for opening in a building and also about the temporary structures that aid the construction process.
- To grasp the relation between construction materials and their applicability to different types of structures (based on function, form and use).
- Develop a fundamental understanding of material in construction systems and techniques, dimensions and intrinsic qualities that influence the design process.
- Sound Graphical representation of construction techniques through drawing and different rendering medium; develop details and specifications for the design projects

CO 6: ID215 - Line Sketch with AUTOCAD

- To develop an understanding of the design-based software like AutoCad,
- Using Auto cad to deliver Interior design scheme drawings for construction on site
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CO 7: ID217 - Working Drawing & Presentation Technique

- To equip students the skills and techniques of making drawing to execute design idea on site
- To equip students with the knowledge of real challenges of handling site and to use that knowledge to overcome those challenges in design stage.

CO 8: ID221 – Educational Tour/ Field Visits

- Familiarize with design processes used to achieve comfortable spaces for people in a interior environment
- Students will be exposed to the social, economic background behind a project and the design process used by the designer as a case study.

Fourth Semester

Course Educational Objectives

CEO 1: ID202 - Behaviour Science, Environment & Ecology

- Need for public awareness about environment and ecological processes.
- Human activities and their relation with ecological process

CEO 2: ID204- Estimation & Costing

- To initiate the students into theory and practice of estimation and quantity surveying.
- To develop the understanding of specification writing.

CEO 3: ID206- Commercial Space Design Theory

- Commercial interior design pertains to the interior design of different commercial spaces, such as retail spaces, offices, lobbies, restaurants, and other places for public use. Ideas for designing commercial spaces commence with the planning process.
- To develop the understanding of design requirements of a commercial spaces

CEO 4: ID210- Interior Design Studio –IV (Residential Project)

- Introduction to human activity and spaces required for activities.
- Introduction to basic building components and their dimensions.
- To appreciate the elements in architectural design of single unit built-up structures.
- Field trips to relevant sites shall be compulsory for all assignments.

CEO 5: ID212 - Interior and Construction Technology – IV

- To acquaint the students to building materials such as Timber products, Surface finishing, Adhesives, Painting and Polishing.
- To familiarize the students with construction techniques for use of the above materials in building works.
- To familiarize the student with the basic building construction practices on site/yard.

CEO 6: ID214 - Computers (Corel Draw Photoshop & In Design)

- Use of Corel draw and photoshop in the creation and post production of renderings of interior spaces
- Use of InDesign in making reports and documents related to interior projects.

CEO 7: ID216 - Furniture Design and Detailing

- To create understanding of functional requirement of space and use of furniture for activities
- To familiarize students with the process of designing furniture.

CEO 8: ID220 – Educational Tour/ Field Visits

- To expose students with the historical and contemporary examples of Interior design projects of famous buildings

Course Outcomes

CO 1: ID202 – Behaviour Science, Environment & Ecology

- Natural resources, their role in ecology and its impact on shelter for human.

CO 2: ID204- Estimation & Costing

- Aim and object, Scope and importance of subject, types of estimates etc.
- Principles of analysis of rates, rates of labour and materials, exercises in rate analysis of different building works.
- Correct form of specification writing – avoiding ambiguity and conflicting statements. Form and sequence of clauses, study and use of standard specification.
- Detailed specification writing of various building materials, e.g., bricks, sand, lime, glass, paints, metals, timber and its products.
- Superstructure and sub structure works.

CO 3: ID206- Commercial Space Design Theory

- Commercial space in cities occupy largest space in built environment after residential component
- Students will learn about the factors impacting the designs of commercial spaces

CO 4: ID210- Interior Design Studio –IV (Residential Project)

- Learn the art of collecting data and to carry out analysis for the process of evolving design and individuality of approach.
- Understanding site planning: organization, scale, hierarchy, orientation and climate.
- Understand complex services in multi-storied buildings; understanding the architectural content of services in buildings.
- Implicate knowledge of design fundamentals and knowledge gained in other subjects to develop better design solutions.
- Develop appropriate graphic skills and presentation techniques (models, rendering) to explain the contents of a design.

CO 5: ID212 - Interior and Construction Technology – IV

- To equip the students with the knowledge of various materials and techniques used temporary construction work.
- To grasp the relation between construction materials and their applicability to different types of structures.
- Develop a fundamental understanding of materiality in construction systems and techniques, dimensions and intrinsic qualities that influence the design process.
- Sound Graphical representation of concepts and ideas using drawing techniques and rendering medium and format; develop details and specifications for their design studio projects.

CO 6: ID214 - Computers (Corel Draw Photoshop & In Design)

- To familiarize students with latest computer application available to use in interior design drawings and renderings.

CO 7: ID216 - Furniture Design and Detailing

- To familiarize students with modern materials and techniques useful for furniture and interior design.
- To appreciate early interventions in design of furniture.

CO 8: ID220 – Educational Tour/ Field Visits

- Familiarize with design processes used to achieve comfortable spaces for people in a interior environment
- Students will be exposed to the social, economic background behind a project and the design process used by the designer as a case study.

Fifth Semester

Course Educational Objectives

CEO 1: ID301 - Green & Energy Efficient Buildings

- Students will learn about the passive and active means of creating comfortable interior spaces
- Use of energy in a sensible manner in building projects
- Energy efficiency aspects in an interior project

CEO 2: ID303- Interior Design for Special Needs

- Students will learn about the theoretical aspects of special type of projects.
- Non conventional projects required special skills and techniques
- Design for differently abled people.

CEO 3: ID305- Handling Services in Interiors (Electrical, Water supply, Fire safety & Acoustic)

- To understand the basic principles of physics of electricity and light in interior spaces.
- To make them enable to draw the electrical layout with appropriate cross section of wires and illuminance
- calculations for residences.
- To know the characteristics and applications of the different types of modern lamps and luminaires.
- To familiarize the student with electrical bye laws as per NEC/BIS

CEO 4: ID311- Interior Design Studio –V

- Understanding design as a function of specific agenda such as site conditions, orientation, climate, circulation and essential services with design limited to design of Low-rise buildings.
- Design for the requirements of Individuals, Groups or Community with limited land size and other parameters.

CEO 5: ID313 - Interior and Construction Technology – V

- To introduce and familiarize the students with constituents, manufacturing process/ availability, properties/ characteristics, defects, classification, treatments, preservation and uses of traditional building materials used in construction.
- To understand the use of the above said building materials in simple building works.

CEO 6: ID315 - Retail Design & Furniture Detailing

- To familiarize students with the retail unit design.
- Students will be taught about the psychological and functional requirement of designing a retail space

CEO 7: ID317 - Computers 3d Max

- 3D modelling and rendering techniques using 3D Max software
- Post production of interior graphics produced in 3D Max

CEO 8: ID321 – Educational Tour/ Field Visits

- To expose students with the historical and contemporary examples of Interior design projects of famous buildings

Course Outcomes

CO 1: ID301 - Green & Energy Efficient Buildings

- Buildings are the consumer of 30% of total energy produced.
- Interior projects and energy consumption in the lifecycle of a building
- Climate change and the urgent need of alternative design techniques to help mitigate climate change risk on the human habitation and specifically interior spaces design

CO 2: ID303- Interior Design for Special Needs

- Changing nature of society and economy is changing human settlements and interior space design concepts are changing. Students will be equipped with critical thinking to understand changing aspects of society.
- Technology is rapidly changing and hence changing the space requirement for residential and commercial spaces. Students will learn about upcoming technological changes and space requirements in interior spaces.

CO 3: ID305- Handling Services in Interiors (Electrical, Water supply, Fire safety & Acoustic)

- Learn elementary building services of electrical services.
- Familiarize with a range of electrical accessories and its design consideration
- Learn illumination schemes.
- Familiarize with wiring systems and design consideration of lighting schemes.
- Implicate electrical services in Design.

CO 4: ID311- Interior Design Studio –V

- Learn the art of collecting data and to carry out analysis for the process of evolving design and individuality of approach.
- Understanding site planning: organization, scale, hierarchy, orientation and climate.
- Understand complex services in multi-storied buildings; understanding the interior content of services in buildings.
- Implicate knowledge of design fundamentals and knowledge gained in other subjects to develop better design solutions.
- Develop appropriate graphic skills and presentation techniques (models, rendering) to explain the contents of a design.

CO 5: ID313- Interior and Construction Technology – V

- To equip the students with the knowledge of various materials and techniques used temporary construction work.
- To grasp the relation between construction materials and their applicability to different types of structures.
- Develop a fundamental understanding of materiality in construction systems and techniques, dimensions and intrinsic qualities that influence the design process.
- Sound Graphical representation of concepts and ideas using drawing techniques and rendering medium and format; develop details and specifications for their design studio projects

CO 6: ID315- Retail Design & Furniture Detailing

- Functional space and Anthropometrical requirement of furniture used in a retail space
- Detailing required to construct furniture to support retail space.

CO 7: ID317- Computers 3d Max

- To familiarize students with the techniques required to sell their design ideas with the help of software used in 3D modelling and rendering.

CO 8: ID321 – Educational Tour/ Field Visits

- Familiarize with design processes used to achieve comfortable spaces for people in a interior environment
- Students will be exposed to the social, economic background behind a project and the design process used by the designer as a case study.

Sixth Semester

Course Educational Objectives

CEO 1: ID302 – Entrepreneurship Development

- To understand the need and supply in the market and to nurture their own ideas
- Understanding costumers and aspects influence society – economic aspects, buyer’s behaviours, the environment, public opinion etc
- To equip students with the positive attitude to become job creator in the field of Interior design.

CEO 2: ID304- Low cost Interior Design & Furniture

- Building economics is important concept which enable students to understand life cycle cost of Interior projects
- Furniture represents functional aspects of interior project. Students will be relating their ideas and cost effectiveness of a interior project.

CEO 3: ID306- Restoration & Renovation of Interiors

- To teach students about construction industry and its relation with changing technologies.
- Changing nature of typologies
- Ideas of limited space vs growing demand of housing and economic demand in cities.
- To enable students to have necessary skills and knowledge to take projects require restoration and renovation with changing user demand and technologies

CEO 4: ID310- Interior Design Studio –VI

- To enable students with the advance skills and knowledge for the design of an interior scheme for Hospitality industry- exposure to design standards in five-star hotels.
- To impart knowledge about interior design possibilities in large scale building projects.

CEO 5: ID312 - Using Discarded Material for Interior & Furniture

- To expose the students to the basics of adaptive reuse and recycling.
- Concepts of sustainability in interior projects

CEO 6: ID314 - Interior Design for Special Needs

- Students will learn about the practical aspects of special type of interior projects.
- Students will learn non conventional projects required special skills and techniques.
- Design for differently abled people.

CEO 7: ID316 - End Sem Group Project (Team based actual work)

- Students will undertake an academic exercise of interior projects.
- Students will learn to learn to develop ideas with team.

CEO 8: ID320 – Educational Tour/ Field Visits

- To expose students with the historical and contemporary examples of Interior design projects of famous buildings.

Course Outcomes

CO 1: ID302 - Entrepreneurship Development

- To expose the student to the principles of Orbital condition of an office
- To enable student to start their own office with unique ideas and with the knowledge to compete with other professional

CO 2: ID304- Low cost Interior Design & Furniture

- Buildings are largest consumer of energy and resources. Low cost interior concept enable students to reduce life cycle cost of a interior project.
- To enable students for the future issues of climate change and cost effectiveness in the interior projects.

CO 3: ID306- Restoration & Renovation of Interiors

- To equip students with the critical, understand of construction industry and changing requirements of clients with the change of taste of aesthetics of users.

CO 4: ID310- Interior Design Studio –VI

- To study and develop innovative schemes for hotel, commercial and large-scale interiors.
- Knowledge of working drawings is also intended.

CO 5: ID312- Using Discarded Material for Interior & Furniture

- To enable the student to understand the need for adaptive reuse of old heritage buildings and applications of using recycled materials.
- Life cycle of a building and its impact on resources

CO 6: ID314- Interior Design for Special Needs

- Students will be able to design interior for special projects.

CO 7: ID316 – End Sem Group Project (Team based actual work)

- Interior projects required professionals from many allied fields like architecture, building services, Construction industry, fitting and fixture etc.
- Students will be able to work on an interior project in a team of many professional while leading them.

CO 8: ID320 – Educational Tour/ Field Visits

- Familiarize with design processes used to achieve comfortable spaces for people in a interior environment
- Students will be exposed to the social, economic background behind a project and the design process used by the designer as a case study.

Seventh Semester**Course Educational Objectives****CEO 1: ID401 – Professional Practice**

- To acquaint the students with the role of an Interior Designer in society; scale of charges; a Designer's conduct in Practice.
- To familiarize a student with requirements of Architectural and interior Competitions and appointment of a contractor through tenders.
- To familiarize the students with Easement rights.

CEO 2: ID411- Theme Interior Project

- Students will undergo to an academic exercise of designing interior of theme-based spaces.

CEO 3: ID413- Summer Internship viva

- To do training at an Interior Designer or Architects office in order to get practical exposure.

CEO 4: ID421 – Educational Tour/ Field Visits

- To expose students with the historical and contemporary examples of Interior design projects of famous buildings.

Course Outcomes

CO 1: ID401 - Professional Practice

- Understand his role, responsibilities and code of conduct as an Interior Designer.
- Develop an understanding of the role of professional and statutory bodies.
- Learns how to setup and run office.

CO 2: ID411- Theme Interior Project

- Many buildings required interior based on theme decided by client. Students will learn to develop a theme-based idea into a full Interior scheme of a large-scale project like Mall, Commercial building, Hotel, Amusement Park etc

CO 3: ID413- Summer Internship viva

- The student gets a real-time exposure of how Interior projects are carried out.
- Office management and team-work to enhance the employability of the student.
- To acquaint students with their roles and responsibilities of dealing with various related agencies and the freedom/ limitations as a professional as well as their real status in the society

CO 4: ID421 – Educational Tour/ Field Visits

- Familiarize with design processes used to achieve comfortable spaces for people in a interior environment
- Students will be exposed to the social, economic background behind a project and the design process used by the designer as a case study.

Eighth Semester

Course Educational Objectives

CEO 1: ID410 – Internship

- Introduced to fundamental processes of designing of real buildings on real sites.
- Develops confidence in interacting with various key players in building design and construction processes.
- Develop an understanding of contemporary issues and techniques of building construction.

Course Outcomes

CO 1: ID410 – Internship

- The student gets a real-time exposure of how interior projects are carried out. Office management and team-work to enhance the employability of the student.

Bachelor in Interior Design Syllabus

First Semester

S. No.	Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 101	Interior Design Studio-I	2	---	6	8	25	50	25	50	150
2	IN 102	Interior & Construction Technology - I	2	---	4	6	25	50	25	50	150
3	IN 103	Interior Graphics I	---	1	2	3	---	50	50	---	100
4	IN 104	History of Interior Design I	2	1	---	3	25	15	---	60	100
5	IN 105	Theory of Design I	1	1	---	2	25	15	---	60	100
6	IN 106	Communication Skills & Personality Development	1	1	----	2		50	50	---	100
7	IN 107	Freehand & Measured Drawing	---	1	1	2	---	50	50	---	100
8	IN 108	Model Workshop	---	1	1	2		50	50	---	100
9	EN 111	Open Elective-I	2	----	----	2	25	15		60	100
	-----	General Proficiency									
		Total	10	6	14	30					1000

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 101	Interior Design Studio-I	2	---	6	8	25	50	25	50	150

Objectives

To enable the students:

- To learn by doing things
- To familiarize students with various softwares used in construction and interior design profession for design estimation and project management.

CONTENTS

Understanding Space: Understanding Design To Create For A Purpose and need. Exercise in terms of simple drawing and sketches of objects available. Forms created with the use of dots, lines, and planes.

Form & transformation: Additive, dimensional, subtractive exercises primarily through 3d models of geometry. Visual perception, ideas of abstraction.

Scale in Interior Design: simple measurement exercises, design of basic shelter, human scale.

Understanding environment: Geometrical, structural, dimensional, material, spatial orders - through observation of surroundings of form and space.

References

- Kevin Lynch. The Image of the city. The MIT Press, 1960.
- Christopher Alexander. A Pattern language: towns, buildings, construction. Oxford University Press, 1978.
- Kenneth Frampton. Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture. The MIT Press, 1995.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 102	Interior & Construction Technology - I	2	---	4	6	25	50	25	50	150

Objectives

To enable the students:

- To practically understand the function of important building materials
- Their quality perception and their various application and use at work sites
- To become aware of the existing and new trends and availability of construction materials.
- To learn to make wise selection of suitable building materials for various surfaces.
- To learn to compare the cost of different building materials and make worthy selection

CONTENTS

UNIT 1- Construction Materials (Theory)

- Cementitious materials: types, qualities, properties desired, place of availability merits demerits, uses, prevention & care of stone, bricks, cement, lime, sand, mortar, concrete and plaster
- Wood, metal & other materials: wood (natural & artificial): metals (aluminum based, copper based, lead based, nickel based, iron based, steel based), plastics, rubber, glass, tiles, asbestos.
- Paints & varnishes
- Fire Resistance Properties of Materials
- Prefabricated & Eco-friendly Building Materials

UNIT II- STONES

- Stones : Igneous, metamorphic & sedimentary – classifications, types, properties, availability, applications. Elementary Stone Masonry, Types of joints. Random, Square and Ashlars Stonework.
- Brick: Brick Terminology, Simple Bonds in Brick work. Details at junctions and Quoins.
- Foundation : Need, Design criteria. Foundation concrete. Details of simple Spread Foundations for load bearing walls of various thicknesses.
- DPC: Introduction to Horizontal D.P.C.

UNIT III- RUBBER

- Rubber – Natural rubber, latex, coagulation, vulcanizing and synthetic rubber- properties and application

UNIT IV- PLASTIC

- Plastics – Types, thermosetting and thermo plastics, resins, common types of moldings, fabrication of plastics, polymerization and condensation. Plastic coatings reinforced plastic, plastic laminates – properties, uses and applications.

References

1. Arora S P & Bindra S P, Building Construction, Dhanpat Rai & Sons, New Delhi, 1990.
2. Deshpande R S, Build Your Own Home, Poona Book Corporation, Pune.1985
3. Deshpande R S, Engineering Materials for Diploma Students, Poona Book Corporation, Poona, 1985
4. Deshpande R. S, Modern Ideal Homes for India, Poona Book Corporation, Poona, 1976
5. Mehra. P, Interior Decoration, Hind Pocket Books Ltd., Delhi, 1981
6. YouTube videos on construction operation using various building materials
7. Latest construction technologies such as precast modular building and home construction

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 103	Interior Graphics I	---	1	2	3	---	50	50	---	100

Objectives

To enable the students to:

- To learn the technical skills to present drawing to impress the clients.
- To know the concept of designing 2d & 3d views of the furniture & rooms

CONTENTS

UNIT I- GEOMETRICAL CONSTRUCTIONS

- SCALES: Construction of plain scale and diagonal scale
- CONIC SECTIONS: Construction of conic sections given the distance of focus from the directrix and eccentricity. Construction of ellipse – concentric circle method, rectangular method and intersecting arc method. Construction of parabola by rectangular method and by tangent method. Construction of hyperbola– given the asymptotes and a point on the curve
- SPIRALS: Construction of Archimedean spiral and Logarithmic spiral
- HELIX: Construction of cylindrical helix ,conical helix and square helical spring

UNIT II- PROJECTIONS

- First angle projection Points and Lines: Orthographic projection of lines for any given condition, determination of true length ,traces and inclinations to the planes of projection of any given line
- Planes : Traces of planes , plane figure inclined to one or both the reference planes

UNIT III- SOLIDS

- Solids: Simple solids in simple position, prisms, regular pyramids, tetrahedron, octahedron, cone, spheres and their combinations placed in different positions. Auxiliary projections of simple solids and their combinations. Change of position and auxiliary plane method.

UNIT IV- SECTIONS & DEVELOPMENTS OF SOLIDS

- Intersection of surfaces : Line of intersection of two prisms , two cylinders and cone
- Section of solids : Section of simple solids by planes inclined. True shape of sections.
- Development of surfaces: Development of surfaces of simple solids, prisms, cylinders, pyramids, cones , spheres and truncated solids.

UNIT V- MATERIAL PROJECTIONS

- Isometric Projection: Isometric scale, isometric view of planes , simple solids, truncated solids , combination of objects
- Perspective projection: Perspective projection of simple solids and their combinations by visual ray method and vanishing point method.

SUGGESTED BOOKS

1. N.D.Bhatt, ‘Elementary Engineering Drawing’, 53rd edition, Charotar, 2014
2. Cari LaraSvensan and William Ezara Street, ‘Engineering Graphics’,
3. K. Venugopal, ‘Engineering Drawing and Graphics’, New Age Publishers, 2004.
4. S. Rajaraman, ‘Practical Solid Geometry

References

1. French Thomas E, *Engineering Drawing & Graphic Technology*, McGraw Hill, New York.
2. Millar Max, *KnowHow to Draw*, B T Batsford Ltd., London
3. Shah, Kale & Patki, *Building Drawing*, Tata McGraw Publishing Co., New Delhi

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 104	History of Interior Design I	2	1	---	3	25	15	---	60	100

UNIT –I

PURPOSE AND RELEVANCE OF ART DEVELOPMENT

A survey of history of art forms: pre historic times to present times: changing nature of art through time
interms of content: form and material.

UNIT – II

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 the earliest time.

UNIT – III

STUDY OF ORNAMENTS & ACCESSORIES

Ornaments & Accessories in Interior Design. Different types of Ornamentation & Accessories in the
interiors.Study and evaluation of artefacts, historic examples and their applicability.

UNIT – IV

INTRODUCTION TO HERITAGE INTERIORS

Heritage Interiors Buddhist, Islamic and Hindu: Evolution of Interiors in different regions of India
with examples. Heritage and identity at different spatial scales.

UNIT – V

NEW DIRECTIONS IN ART

Context for new directions in art in the late 19th and early 20thcentury - Impressionism - post
Impressionism – Fauvism- Expressionism- Cubism –Dadaism – Surrealism - abstract art – Futurism -
Constructivism – Suprematism – De-Stijl -Abstract Expressionism - Pop art - Op art- new forms and media
ofart. Study of famous and influential Artists, Craftsmen and people who pioneered innovations in their own
fields and their influence on design and other fields.

Works of Van Gogh, Dali, William Morris,Piccaso,Da Vinci

SUGGESTED BOOKS

- Alan Barnard & Jonathan Spencer, Encyclopaedia of social and cultural anthropology, Routledge; 1edition, 2002
- Niggel Rapport, Social and Cultural Anthropology: The Key Concepts, Routledge, 2000
- Elizabeth. D. Hutchinson, Sage publications, Dimensions of Human Behavior, person andEnvironment, 2007.
- Kumar Raj (Ed) Essays on Indian Art and Architecture. Discovery pub., New Delhi, 2003
- Ghosh. A (Ed). Jain Art and Architecture Vol 1-3. Bharatiya Jnanpith.New Delhi.
- Christine M. Piotrowski, Becoming an Interior Designer, John Wiley and Sons, 2003.
- Henry Wilson, India: Decoration, Interiors, Design, Watson Guptill, First American edition, 2001
- Michael Freeman, India Modern, Periplus editions, 2005
- Sunil Sethi, Angelika Taschen, Indian Interiors, TASCHEN America Ltd; 25th ed. edition, 2009

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 105	Theory of Design I	1	1	---	2	25	15	---	60	100

UNIT –I

INTRODUCTION TO DESIGN

Definitions and meaning of design, importance of design, examples of design from nature. Fundamental elements of design in 2-D and their definitions; point, line, shape, form, space, texture, value, colour and material. Introduction to the principles of design in 2-D and 3D - unity, balance, symmetry, proportion, scale, hierarchy, rhythm, contrast, harmony, focus, etc. ; use of grids, creating repetitive patterns.

UNIT – II

CONCEPTS OF GEOMETRY

Introduction to different 3-D forms and primitive forms, shapes and understanding the behavior when combined. Transformation of 2-D to 3-D.

UNIT – III

PRINCIPLES OF COMPOSITION

Principles of composition using grids, symmetrical/ asymmetrical, Rule Of Thirds, Center Of Interest, Gestalts Theory of Visual Composition.

UNIT- IV

THEORY OF COLOURS

Introduction –visible spectrum, coloured light, colour temperature, colour interaction, colour blindness. Color wheel – primary, secondary, tertiary colors, color wheel, color schemes color value, intensity, and modification of color hues – tints, shades, neutralization. Color charts – types, making and using. Color harmony, use of color harmony.

UNIT – V

USE OF COLOURS

Psychological impact of color – warm, cool and neutral colors, impact of specific hues, meanings of color, color and form, color and light, color and surface qualities, color and distances and scales.

Problems with color. Use of colors in various functional contexts – e.g. Residential interiors, Non Residential interiors. Use of color in special situations – out door/indoor spaces, accessories, art works etc.

SUGGESTED BOOKS

- Linda Holtzschue, *Understanding color, an introduction for designers*, Van Nostrand Reinhold, Newyork,1995.
- Hanks, A.David. *Decorative Designs of Frank Lloyd Wright*, Dover Publications, Inc. New York, 2003.
- Ching, Francis D.K. *Architecture Form, space, and Order*, 3rd ed. Van Nostrand Reinhold, New York, 2007.
- Hanks, A.David. *Decorative Designs of Frank Lloyd Wright*, Dover Publications, Inc. New York, 2003.

E BOOKS

- <http://www.edb.utexas.edu/minliu/multimedia/PDFfolder/DESIGN~1.PDF>
- <http://v5.books.elsevier.com/bookscat/samples/9780750660754/9780750660754.PDF>

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 106	Communication Skills & Personality Development	1	1	----	2		50	50	---	100

OBJECTIVES

- Enhance the communicative competence with focus on syntax and fluency
- Excel oral and written medium and prepare them for employability
- To prepare students to acquire understanding and fluency in English for professional work.

CONTENTS

UNIT I

IMPORTANCE OF COMMUNICATION

Communication: Importance of Communication; Elements of good individual communication; organizing oneself; different types of communication; Barriers in the path of Communication

UNIT II

LISTENING SKILLS

Listening skills: Listening to conversation and speeches (Formal and Informal) Reading: Techniques of reading, skimming, Scanning, SQ3R technique

UNIT III

CREATIVE WRITING SKILLS

Creative Writing: Scope of creative writing; Report writing, Paragraph, Letter Writing (Formal and Informal), Memo, Circular, Preparation of Agenda, Minute of the meeting, Notice, Description of Projects and Features

Oral Report; Periodical Report; Progress Report; Field Report Preparation of minutes; Video conference; Tele conference / Virtual meeting

UNIT

IV

SPEAKING SKILLS

Speaking: How to converse with people, How to communicate effectively; Language and grammar skills; Pronunciation drills, Phonetics, vowels, Diphthongs, consonants, Stress, Rhythm and intonation, Conversational skills Features of effective speech- practice in speaking fluently –role play – telephone skills– etiquette. Short Extempore speeches – facing audience – paper presentation – getting over nervousness –Interview techniques – preparing for interviews – Mock Interview – Body Language

UNIT V

DIGITAL COMMUNICATION

Impact of internet on communication; communication through computers; voice mail; broadcast messages; e- mail auto response; etc. Video Conference; Tele conference.

METHODOLOGY

- Suggested Reads: Daily Newspaper, E newspapers

SUGGESTED BOOKS

- *Professional speaking Skills* by Arun Koneru, Oxford University Press, 2017.
- Krishna Mohan & Meera Banerji: *Developing Communication Skills Macmillan India*, 2nd edition, 2009
- K. Ashwathappa: *Organizational Behavior, Himalaya Publishing House*
- Daniel Colman: *Emotional Intelligence, Bloomsburry publication India, 2010*

E BOOKS

- English Language – TN College Text Book - <http://www.textbooksonline.tn.nic.in/books/dted/dted1-english.pdf>

MOOC

<https://www.mooc-list.com/course/business-english-basics-coursera>

	Course Title	Periods/Week	Credits	Internals	End	
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Course No		L	T	P/S		Mid-term	Sessional	Viva	Theory	Total Marks
IN 107	Freehand & Measured Drawing	---	1	1	2	---	50	50	---	100

Objectives

To enable the students to:

- To get acquainted with drawing freehand
- To learn the importance of correct measurements in architectural drawings

CONTENTS

UNIT I

INTRODUCTION TO PENCIL EXERCISES

Knowledge about usage of different points of pencils, handling of pencils, practicing lines and tone building exercises.

UNIT II

EXERCISES OF OBJECT DRAWINGS, FUNDAMENTALS OF DRAWING

Natural geometric forms with emphasis on depth and dimension, detail & texture, sunlight & shadow.

Introduction – Fundamentals of drawing and its practice, introduction to drawing equipment, familiarization, use and handling of various media

UNIT III

GEOMETRICAL DRAWING

Drawing– Drawing sheet sizes, composition, fixing. Simple exercises in drafting, point and line, line types, line weights, straight and curvilinear lines, dimensioning, lettering, borders, title panels, tracing in pencil, ink, use of tracing cloth. Portfolio preparation.

UNIT IV

MEASURED DRAWING

Measuring and drawing to scale – scales, simple object, reduction and enlargement of drawings 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 V

SKETCHING INDOOR OBJECTS

Still Life – Furniture, Equipment – Understanding Depth, light, shade, Shadow Etc. Outdoor Sketching: Natural Forms/Built Forms. Understanding variety in Forms. Sketching Human Form: Anatomy and Expressions – Graphical Representations

SUGGESTED BOOKS

- *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, W.W. Norton & Co., 2005

- Francis D. Ching, *Design Drawing*, Wiley publishers
- Moris, I.H. *Geometrical Drawing for Art Students*.
- Thoms, E. French. *Graphics Science and Design*, New York: MC Graw Hill.
- 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.
- Bies, D. John. *Architectural Drafting: Structure and Environment*
Bobbs – Merril Educational Pub., Indianapolis

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 108	Model Workshop	---	1	1	2		50	50	---	100

OBJECTIVES

- Understanding the properties of soft materials
- Ability to manipulate soft and pliable material to create new forms

CONTENTS

UNIT I

INTRODUCTION TO MODEL MAKING

Need; role of scale models in design: general practices: Essentials of model making: understanding of various tools and machines employed, best practices involved in operating the tools and the techniques.

Introduction to the Mount Board/Paper/Boards for model making – types, properties etc. Hand building techniques on different planes - making rigid forms like, cubic, spherical, pyramidal shaped forms, depiction of steps, free forms, sculptures, etc.

UNIT -II

MATERIALS AND TECHNIQUES (CLAY)

Ceramics – clay/ plaster of Paris : Introduction to model making, Need; role of scale models in design: general practices - The potter's wheel – kneading the clay, function of hands in throwing. Learning basic techniques in making different objects like bowl, plate, cylinder, vase, etc. Essentials of model making: understanding of various tools and machines employed, best practices involved in operating the tools and the techniques. Introduction to the Ceramic materials used for model making – clay, types and mixtures, properties etc. Hand building techniques- coiling, hand building with clay strips- making a small sculpture in Relief work – addition - making a mural, scooping – tile work. .

UNIT - III

MATERIALS AND TECHNIQUES (WOOD)

Wood : Working with wood and wood derivatives to understand material parameters. Wooden joinery and its strength, Wood polishes and other finishes – colour and surface quality. Making of elements of various scales in the built form, such as, interior space

making elements, furniture forms, various products, Art & Artifacts by using wood. Understanding the material and tools by making objects which allow students to explore the forms, surfaces, textures and patterns. Explore different joinery, support conditions, and woven surfaces.

UNIT - IV

MATERIALS AND TECHNIQUES (METAL)

Metal : Types of metals, properties of metals, definitions of terms with reference to properties and uses of metals, various methods of working with metals, fixing and joinery in metals, finishing and treatment of metals., finishes on metals. Standard specifications. Metals in built form activity – horizontal, vertical and inclined surfaces – in interior environment elements- products and furniture forms - doors, windows, grilles, railing, stair etc. Metals and other materials – form and joinery.

UNIT -V

MATERIALS AND TECHNIQUES (TEXTILES)

Textiles – Weaving & printing : Introduction to fibers and yarns, table loom and floor loom, preparing warp, setting up loom for weaving. Basic weaves and their variations. Variation weaves and design quality, weaves as light controlling device, weaves and its quality for upholstery, curtains and floor coverings, Rugs and durries – motifs design, patterns and color variations. Development of textile design in different cultures from primitive art to contemporary designs. Criteria of design of the elements and principles of textile design. Analysis of a motif, developing repeat as a basic unit of design in textile printing. Printing – developing block, understanding the material used, colors, types and their mixing process, various color printing. Screen printing – design evolution for wall hangings, preparing screen and understanding the technique, printing on paper and printing on fabric

SUGGESTED BOOKS

- Carol Stangler, *The crafts and art of Bamboo*, Rev. updated edition, Lark books, 2009.
- Dr Angelika Taschen, *Bamboo style: Exteriors, Interiors, Details*, illustrated edition, 2006.
- Lonnie Bird, Jeff Jewitt, Thomas lie- Nielsen, *Taunton's Complete Illustrated Guide to Woodworking*, Taunton, 2005.
- Peter Korn, *Wood working Basics :Mastering the essentials of craftsmanship*, Taunton , 2003
- Liz Gibson, *Weaving Made Easy: 17 Projects Using a Simple Loom (Paperback)*, Interweave press, 2008
- Deborah Chandler, *Learning to weave, Revised edition*, Interweave press, 2009.
- *textiles*, Crowood press, 2005
- *Fabrics: A guide for architects and Interior Designers*, Marypaul Yates, Norton publishers, 2002.

Materials for Interior Environments, Corky Bingelli, John wiley and sons, 2007

Course No	Course Title	Periods/Week	Credits	Internals	End	
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		L	T	P/S		Mid-term	Sessional	Viva	Theory	Total Marks
EN 111	Open Elective-I	2	----	----	2	25	15		60	100

Second Semester

S. No.	Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 201	Interior Design Studio -II	2	---	6	8	25	50	25	50	150
2	IN 202	Interior & Construction Technology – II	2	---	4	6	25	50	25	50	150
3	IN 203	Interior Graphics - II	---	1	2	3	---	50	50	---	100
4	IN 204	History of Interior Design II	2	1	---	3	25	15	---	60	100
5	IN 205	Theory of Design II	1	1	---	2	25	15	---	60	100
6	IN 206	Furniture Design I	2	1		3	---	50	50	---	100
7	BS 101	Human Values and Buddhist Ethics	1	1		2	25	15	60	---	100
	-----	General Proficiency									
		Total	10	5	12	27					800

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 201	Interior Design Studio -II	2	---	6	8	25	50	25	50	150

OBJECTIVES

Space Planning provides a specific design methodology for understanding the nature of spaces, scales and space within a space along with elements and organization.

CONTENTS

UNIT I

BASIC ANTHROPOMETRICS

Average measurements of human body in different postures – its proportion and graphic representation, application in the design of simple household and furniture. Role of mannequins in defining spatial parameter of design. Basic human functions and their implications for spatial planning. Minimum and optimum areas for various functions.

UNIT II

INTRODUCTION TO DESIGN METHODOLOGY

Detailed study of residential spaces: such as, living, dining, bedrooms, kitchen, toilet etc. including the furniture layout, circulation, clearances, etc. Case study of existing residential spaces and the analysis of the spaces therein, to be taken up. Preparing user profile, bubble and circulation diagrams.

UNIT III

VISUAL ANALYSIS DESIGNED SPACES

Visual analysis designed spaces of noted for comfort and spatial quality; analysis of solid and void relations, positive and negative spaces. Integration of spaces and function in the design of kiosk for - traffic police, ATM center, etc; stalls inside a shopping mall, - jewellery stall, flower stall, ice cream stall, etc; booths - bus ticketing booth, smokers' booths, etc.

SUGGESTED BOOKS

- Karlen Mark, Space planning Basics, Van Nostrand Reinhold, New York, 3rd edition 2009.
- Joseph D Chiara, Julius Panero, & Martin Zelnick, Time Saver standards for Interior Design & spaceplanning, 2nd edition, Mc-Graw Hill professional, 2001.
- Francis.D. Ching & Corky Bingelli, Interior Design Illustrated, 2nd edition, Wiley publishers, 2004
- Karlen Mark, Kate Ruggeri & Peter Hahn, Space Planning Basics, Wiley publishers, 2003.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 202	Interior & Construction Technology – II	2	---	4	6	25	50	25	50	150

Objectives

To enable the students to:

- Understand various factors to be kept in mind to ensure sustainability, safety and longevity while designing a building and/or any super structure.

CONTENTS

1. MATERIALS:

Timber: Classification, Characteristics, Defects, Preservation.

Reinforced Cement Concrete Types, Mixing, Curing, Water Cement Ratio, Qualities and Workability.

and Reinforced Brick Concrete:

2. Construction:

- Brick Work: Arches, Brick, Stone, elementary principles, definition and centering., Corbelling. Coping, String Courses, Decorative Brick work, Brick Jalis. Special Bonds-Rat Trap Bond, Garden Bond etc.
- Timber: Elementary Carpentry, Common Joints, Details of Ledge Braced and Batten Door, paneled door, flush door , jamb casing, skirting, timber paneling
- **D.P.C.:** Vertical Damp proofing

References

1. **Agnew, J.C.** ‘A House of Fiction: Domestic Interiors and the Commodity Aestheti c’, in Bronner, S. (ed.) Consuming Visions: Accumulation and Display of Goods in America 1880- 1920. New York: Norton, 1989.
2. **Ayres, James.** Domestic Interiors: The British Tradition, 1500-1850. New Haven and London: Yale University Press, 2003.
3. **Baker, Malcolm.** „Public Images for Private Spaces? The Place of Sculpture in the Georgian Domestic Interior“, Journal of Design History, 20:4 (2007), 309-23.
4. **Beard, Geoffrey.** Craftsmen and Interior Decoration in England, 1660-1820. London: Bloomsbury Books, 1986.
5. **Bryant, Julius.** „Curating the Georgian Interior: From Period Rooms to Marketplace?“, Journal of Design History, 20:4 (2007), 345-50.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 203	Interior Graphics - II	---	1	2	3	---	50	50	---	100

Objectives

To enable the students to:

- To learn by doing things

PURPOSE

Students should acquire knowledge of the various drawings, which effectively communicate their designs.

INSTRUCTIONAL OBJECTIVES

To train the students in the field of interior perspective drawing and sciography. Presentation skills, Techniques for Construction as a tool towards effective visualization and presentation.

UNIT - I MEASURED DRAWING

Measured Drawing of Simple objects like Cupboards etc. and building components like Columns, Cornices, Doors, Windows etc.

UNIT – II ISOMETRIC

Isometric View: like Tables, Chairs, Cylindrical & Spherical elements etc. Axonometric View: like Interior views for living room, Toilet, Dining Room etc.

UNIT – III PERSPECTIVE

Perspective View: Principles and Visual Effect of three dimensional objects, Study of Picture plane, Station Point, Vanishing Point, Eye level etc. One point perspective for interiors Two point perspective for interiors.

UNIT – IV SCIOGRAPHY

Sciography : Principles of Shade and Shadow- Shade and Shadows of Architectural Elements in Interiors. Shadows of Circular/Cylindrical/Spherical elements.

TEXTBOOK

1. Perspective & Sciography BY Shankar Mulik, Allied Publishers

REFERENCE BOOKS

1. Perspective Principles, M.G. Shah & K.M. Kale, Asia Publications, Mumbai
2. Geometrical drawing for Art students, I.H. Morris, Orient Longman, Chennai
3. Engineering Drawing, M.S. Kumar, D.D. Publications, Chennai

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 204	History of Interior Design II	2	1	---	3	25	15	---	60	100

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 205	Theory of Design II	1	1	---	2	25	15	---	60	100

OBJECTIVES

- Understanding the use of Principles and Forms in Product Designing
- Understanding on Typography and Basic Geometric Shapes

CONTENTS**UNIT – I***INTRODUCTION*

Primary elements of design –Point, Line, Plane, Volume. Primary forms, properties of form, transformation of forms -dimensional transformation, subtractive, additive forms,

organization of additive forms - Articulation of forms. Space defining elements-horizontal, vertical, openings in space defining elements, Spatial relationship, Spatial organization.

UNIT- II

PRINCIPLES OF DESIGN

Exploration of the basic principles of composition such as Proportion, Scale, Balance, Rhythm, Unity, Contrast, Character with garment examples. Ordering Principles such as Axis, Symmetry, Hierarchy, Datum, Rhythm & Repetition..

UNIT- III

ORGANISATION OF FORMS

Spatial Relationships: i) Space within space, ii) Interlocking spaces, iii) Adjacent spaces, iv) Space linked by a common space b) Spatial Organization: influencing factors and their types i) Centralized, ii) Linear, iii) Radial, iv) Clustered, v) Grid c) Articulation of forms and spaces types: i) Edges and corners, ii) Surface. A Project on Creation of forms & spaces using the principles learnt.

UNIT – IV

PRINCIPLES OF COMPOSITION; TYPOGRAPHY & GEOMETRY

Unity, harmony and specific qualities of design to include dominance, punctuating effect, dramatic effect, fluidity, climax, accentuation and contrast with garment examples.

Basics of Calligraphy and typography, Understanding structure and proportion of types of (Roman Serif and San Serif). Basic solid Geometry

UNIT – V

CIRCULATION

Function of building circulation components of building circulation - The building approach, The building entrance, configuration of the path, path space relationship, form of circulation space with examples.

Simple circulation diagram for buildings

SUGGESTED BOOKS

- Francis D. K. Ching, ‘Architecture - Form, Space and Order’, Van Nostrand Reinhold Company, 2007
- V.S.Pramar, ‘Design Fundamentals in Architecture’, Somaiya Publications, New Delhi, 2007
- Leland M.Roth, ‘Understanding Architecture’, Routledge; 3 edition, 2013

E BOOKS

- <http://www.edb.utexas.edu/minliu/multimedia/PDFfolder/DESIGN~1.PDF>
- <http://v5.books.elsevier.com/bookscat/samples/9780750660754/9780750660754.PDF>

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 206	Furniture Design I	2	1		3	---	50	50	---	100

Objectives

To enable the students to:

- To acquire knowledge about the various materials used in furniture.
- To know the multiple use of furniture keeping the constraints of available space. To learn to care & maintain the furniture with various finishes.
- To appreciate the contribution of furnishings in satisfying family living.
- To recognize the importance of wise decision making in selection, use and care of home furnishings.
- To learn principles that will help one to judge the design of furnishing relative to their function and beauty.

CONTENTS

UNIT I

FUNCTIONAL AND FORMAL ISSUES IN DESIGN

Study and evaluation of popular dictums such as “Form follows function”, “Form and function are one”, “God is inDetails”, “Less is more” or “Less is bore” etc.

Evaluation of visual design: study of Gestalt theory of design – law of closure, law of proximity, law of continuity etc. Typology of furniture with respect to the different states in India.

UNIT II

ERGONOMICS AND HUMAN FACTORS

Human factors, engineering and ergonomic considerations: Principles of Universal Design and their application in furniture design,

UNIT III

EVOLUTION OF FURNITURES

Evolution of furniture from Ancient to present: Various stylistic transformations. Furniture designers and movements for various types of furniture.

UNIT IV

ROLE OF FURNITURE

Furniture categories – role of furniture in interior design, exploration of the idea of furniture as elements of living units, education institutes, health facilities, street elements office, educational institutes, banks, stores, street furniture, etc.

UNIT V

SEATING

Seating Design: Different types of seating with Functionality, Aesthetics , Style, Human factors and ergonomics

ASSIGNMENT

- Design with wood, metal and combination of materials. Drawings, details. Market survey of available products and economics of products.
- Design of furniture for upper middle, middle and lower middle income groups - elements of living units, educational institutes, health facilities, street elements etc.
- Exploration of wood, metal, glass, plastics, FRP, etc as materials for furniture design – traditional and modular. Cost criteria of furniture design.

SUGGESTED BOOKS

- Bradley Quinn, Mid-Century Modern: Interiors, Furniture, Design Details, Conran Octopus Interiors, 2006.
- Jim Postell, Furniture Design, Wiley publishers, 2007.

- Robbie. G. Blakemore, History of Interior Design and Furniture: From Ancient Egypt to
- Nineteenth-Century Europe, Wiley publishers, 2005.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
BS 101	Human Values and Buddhist Ethics	1	1		2	25	15	60	---	100

Third Semester

S. No.	Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 301	Interior Design Studio -III	2	---	6	8	25	50	25	50	150
2	IN 302	Interior and Construction Technology - III	2	---	4	6	25	50	25	50	150
3	IN 303	COMPUTER GRAPHICS I	---	1	2	3	---	50	50	---	100
4	IN 304	HISTORY OF Interior DESIGN III	2	1	---	3	25	15	---	60	100
5	IN 305	SERVICES I	2	1	---	3	25	15	---	60	100
6	IN 306	FURNITURE DESIGN II	2	1		3	---	50	50	---	100
7	IN 307	CREATIVE THINKING	1	1	---	2	25	15	---	60	100
	-----	General Proficiency									
		Total	11	5	12	28					800

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 301	Interior Design Studio - III	2	---	6	8	25	50	25	50	150

Objectives:

To enable the students to:

- Learn by doing things (part of hands-on learning)

Course Content

UNIT I

Case Study Approach – Speciality – Hospitality, Health Care

UNIT II

Detail Documentation, Drawing, Observation and Notes

UNIT III

Quantification, Reporting, Presentation

UNIT IV

Design of Work Space for a Given Site

References

1. Visit to various sites (field visits) and to submit study report
2. Design briefs from clients according to their requirements and converting design brief to project design and its presentation

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 302	Interior and Construction Technology - III	2	---	4	6	25	50	25	50	150

Objectives

To enable the students to:

To appraise students about various electro-mechanical services and equipments used in various buildings

COURSE CONTENT:

UNIT I

FINISHES:

- SURFACE WALL FINISHES: Types and application of Plasters, Jointing and Pointing, Cladding
- FLOOR & FLOOR FINISHES: Brick, Cement Concrete, Stone, Terrazzo, Chequered Tile, Ceramic Tile, Vitrified Tiles, Wooden

UNIT II

GLASS:

- Glass - Translucent, Transparent and Special glasses, Glass bricks, Glass Fibre

UNIT III

Painting & Polishing:

- Preparation of variety of surfaces, Application of various coats.
- Finishes – Lime / Colour wash, Dry distemper, Oil bound distemper, Cement paints, Acrylic emulsions, Synthetic enamels, Wall textures etc.
- Polishes and Varnishes

UNIT III

Woodwork

- Paneled Doors, Flush door and Windows and details of glazed window and ventilator shutters and frames., Mosquito Proof Shutters

UNIT IV

Flooring

- Complete process of laying of floor and skirting - Brick, Cement Concrete, Mosaic and Terrazzo floors

UNIT V

Temporary Timbering

- Timbering of shallow trenches, Raking, Flying and Needle Shoring

UNIT VI

Tiles

- **Roofing tiles:** terracotta, sheets and fiber boards – properties and application.
- **Flooring tiles:** Various natural as well as artificial flooring materials like, ceramic tiles, full body vitrified tiles, terracottatiles, glass mosaic tiles, stone tiles, Mosaic, Rubber, Linoleum, PVC and PVA flooring, their Properties, other uses and applications in the interiors.

REFERENCE BOOKS

1. McKay, W.B., “Building Construction Volume I, II, III and IV”, Longmans, 1955.
2. Ching, Francis D. K. and Adams, Cassandra, “Building Construction Illustrated”, Wiley and Sons, 2000.
3. The Construction of Buildings – Barry Volume I, II, III and IV
4. Chudley, Roy, “Construction Technology”, Longman, 2005.
5. Rangwala, S. C., “Building Construction”, Charotar Publishing House, 2007
6. Building Materials by SC Rangwala: Charotar Pub. House, Anand

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 303	COMPUTER GRAPHICS I	---	1	2	3	---	50	50	---	100

OBJECTIVES

- To orient the student to create two and three-dimensional objects in space with special emphasis on presentation and visualization of interiors using rendering techniques using CAD. Objectives of the course: To explore computer modelling techniques using CAD.

CONTENTS

UNIT I

MS OFFICE

Computer Orientation, Microsoft word, Microsoft excel, Microsoft presentation software, scanning and MS Paint

UNIT II

AUTO CAD

BASIC OUTLINE , AXIS POINTS

Introduction to the menu, starting drawings from scratch. Creating and using templates-starting drawings with setup wizards. Saving and closing a file.

Introduction to the menu, starting drawings from scratch. Creating and using templates-starting drawings with setup wizards. Saving and closing a file.

UNIT III

UNITS, LIMITS AND LAYERS

Setting up the drawing environment – setting the paper size, setting units, grid limits, drawing limits, snap controls. Use of paper space and model space. Basic commands dealing with drawing properties: Layer control, change properties, line weight control, etc.

UNIT IV

DIMENSIONS, CALCULATIONS AND GROUPING

Inquiry methods: Using data base information for objects, calculating distance, angle, areas etc. 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- one exercise to be done as lab assignment.

UNIT V

BASICS OF ADOBE PHOTOSHOP

Tool box (Moving , marquee tool), Magic wand selection, Crop tool, Paint Brush, Opacity, Text Styles, Blue tool, Sharpening Tool, Colour correction, Layers, moving Tool, Masking Tool.

SUGGESTED BOOKS

- Auto Desk, Revit 2017 for Architecture, Sybex, 2016 .
- Auto Desk, 3DS MAX comprehensive tutorial resources Wiley 2014.
- Sketch up for interior Design . 3D visualising designing & space planning by Lidya Sloan, WileyPublisher – 2014.
- Computer Design & Digital Fab
- Auto Desk Auto cad 2017 for Architecture, Sybex , 2016

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 304	HISTORY OF Interior DESIGN III	2	1	---	3	25	15	---	60	100

OBJECTIVES

- The course emphasizes on developments of interior elements in response to social, religious, aesthetic and environmental factors.

CONTENTS

UNIT I

INDUSTRIAL REVOLUTION

Reviewing Industrialisation :- Industrial revolution and its influence on social, economic conditions of that period, Scientific and technological progress, invention of new materials. –Joseph Paxton – Gustav Eiffel etc
An overview of Art and Crafts movement in Europe and America.

UNIT II

ANCIENT HISTORY

Indian Colonial Architecture-Portuguese, French and British : The styles and trends of architecture and design brought to India and their evolution – Their impact on architecture and design in India – The characteristics of Colonial Architecture with examples from Goa-Bom Jesus Cathedral Complex-Old Goa- Fountainahs , Puducherry, Mahe and Edwin Lutyen etc.,

UNIT III

MODERNISM

Impressionism –Expressionism – Cubism – Neoclassicism – Neoplasticism
Suprematicism – Art Nouveau Constructivism
– Futurism – Post modernism- Post- Post Modernism– Deconstructivism Antonio Gaudi, Victor Horta, Charles ReneeMackintosh, Le Corbusier.

UNIT IV

AFTER MODERNISM

Critical regionalism, Bauhaus, International style, Post Modernism.-Walter Gropius.

UNIT V

WORKS OF ARCHITECTS

Works of Foreign Architects /Artisans in India and their influence – Edwin Lutyens, Le Corbusier, Louis Khan, Philip Johnson. Works of Indian Architects – Laurie Baker, Charles Correa, B.V. Doshi, A.P. Kanvinde, Raj Rewal, , Joseph Allen Stein

SUGGESTED BOOKS

- John F. Pile, A history of interior design, 2nd edition, Laurence King Publishing, 2005. JeannieIreland, History of Interior Design, air child publications, illustrated ed., 2009.
- Elaine, Michael Dywer, Christopher Mackinnon, Norman A. J. Berisford Denby , A History ofInterior Design, Rhodoc International, 2000.
- Giedion Sigfried, Space, Time and Architecture: The growth of a new tradition, 5th ed. HarvardUniversity Press, Cambridge, 2008

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 305	SERVICES I	2	1	---	3	25	15	---	60	100

Purpose:

To expose the students to the basic principles of water supply and sanitation.

INSTRUCTIONAL OBJECTIVES

To understand the need and applications of water supply and sanitation in buildings with exposure to

various fixtures and fittings, water supply and sanitary installations at work sites.

UNIT I WATER SUPPLY IN BUILDINGS

Standard of portable water and methods of removal of impurities, Consumption or demand of water

for domestic purposes, Service connection from mains, House-service design, tube well, pumping of

water, types of pumps, cisterns for storage

UNIT II BUILDING DRAINAGE

Layout, Principles of drainage, Trap type, materials and functions, Inspection chambers, Design of

Septic tanks and soak pits, Ventilation of house drains Anti-syphonage or vent pipes, One and two

pipe systems Sinks, bath tub, water closets, flushing cisterns, urinals, wash basins, bidet, shower panel

etc.

UNIT III PLUMBING

Common hand tools used for plumbing and their description and uses, Joints for various types of

pipes, Sanitary fitting standards for public conveniences Different types of pipes and accessories for

water supply, controlling fixtures like valves, taps, etc. Fittings and Choice of materials for piping:

cast iron, steel, wrought iron, galvanized lead, copper, cement concrete and asbestos pipes, PVC pipes

Sizes of pipes and taps for house drainage, Testing drainage pipes for leakage - smoke test, water test

etc, CI pipes for soil disposal and rain water drainage, Wrought iron, steel and brass pipes. Rain water

disposal drainage pipes spouts, sizes of rainwater pipes.

UNIT IV SOLID WASTE DISPOSAL

Solid wastes collection and removal from buildings. On-site processing and disposal methods.

Aerobic and Anaerobic decomposition

UNIT V SERVICES STUDIO

Preparation of plumbing layout of a single storey building & working drawings of various fittings and

fixtures of water supply and sanitary installations.

TEXTBOOK

1. S.C. Rangwala, Water supply and sanitary engineering, Charotar publishing house

REFERENCE BOOKS

2. Charangith shah, Water supply and sanitary engineering , Galgotia Publishers

3. A Kamala & DL Kanth Rao, Environmental Engineering, Tata McGraw – Hill publishing

Company Limited

4. Technical teachers Training Institute (Madras), Environmental Engineering, Tata McGraw –Hill publishing Company Limited

5. Marrimuthu, Murugesan, Padmini, Balasubramanian, Environmental Engineering, Pratheeba publishers

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 306	FURNITURE DESIGN II	2	1		3	---	50	50	---	100

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 307	CREATIVE THINKING	1	1	---	2	25	15	---	60	100

OBJECTIVES

- Developing Problem solving skill
- Understand the various techniques of out of box thinking and selecting appropriate one based on the circumstance and situation

CONTENTS

UNIT I

CREATIVITY

Explanation on creativity, Icebreaker: Thinking Outside the Box, Combining Ideas: How to combine ideas for creative thinking breakthroughs, Combining ideas is one of the fundamental exercises in creative thinking.

UNIT II

CREATIVE THINKING TOOLS

Thinking tool no. 1: Kick Cards, 2: The Inverse, 3: Double Six Good Bad Interesting: Get creative thinking with the G.B.II. exercise – Dr Edward de Bono. Brainstorming,

UNIT III

PRINCIPLES OF CREATIVITY

Creative Problems: Defining creative problems and solutions. Diffusion: Spreading ideas through social networks. Divergence and convergence: Staying open and staying focused. Exploration: Going where no one has gone before. Forced association: Banging things together to create new things. Ground Rules: Shared rules that enable safe creativity. Jumping: Jumping to new idea domains. Practice: Build your 'creative muscle' with regular practice. Questioning: Asking things to get the mind going.

UNIT IV

TOOLS FOR DEFINING THE PROBLEM

CATWOE, Challenge, Chunking, Context Map, A Day in the Life of., Is – Is not, how to: The Kipling method (5W1H), Positives, Negatives, Problem Statement: achieve. Purposing: Reversal: Storyboarding: Visioning: Assumption Busting: Brainstorming: Brain mapping. Essence: Forced Conflict: Lotus Blossom: PSI: Problem + Stimulus = Idea, Random Words: Modeling: Morphological Analysis, Post-Up: Provocation: Role-play: Reverse Brainstorming: , SCAMPER: , Storyboarding: , Visioning: , Wishing

UNIT V

TOOLS FOR SELECTING IDEAS

Concept Screening: , The Hundred Dollar Test: , Negative Selection: , NUF Test: Check idea is New, Useful and Feasible., PINC Filter: , Swap sort:

SUGGESTED BOOKS

- Rod Judkins, The Art of creative thinking, Sceptre Pub, 2015

Fourth Semester

S. No.	Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 401	Interior Design Studio –IV	2	---	6	8	25	50	25	50	150
2	IN 402	Interior and Construction Technology – IV	2	---	4	6	25	50	25	50	150
3	IN 403	Computers Graphics II	---	1	2	3	---	50	50	---	100
4	IN 404	Working Drawing & Presentation	2	2		4	---	50	50	---	100
5	IN 405	Services II	2	1	---	3	25	15	---	60	100
6	IN 406	Product Design – Futuristic & Craft based	1	1		2	--	50	50	--	100
7	ES 101	Environmental studies	2	1		3	25	15	---	60	100
	-----	General Proficiency									
		Total	11	6	12	29					800

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 401	Interior Design Studio – IV	2	---	6	8	25	50	25	50	150

Objectives

- To enable the students to:
- Learning from Doing Things (hands-on learning)

Course Content:

OBJECTIVES

This course is intended to provide skills for designing medium scale interior spaces or products etc.

Objectives of the course: To develop creative conceptual visualization, hand skill building, and the process of design and emphasis shall be on graphic layout and elevations as a design process.

Expected skills/ knowledge Transferred: Use of standards, functions of spaces and application of knowledge gained from other subjects, in design.

The primary focus should be on –

- i. Documenting space (sketch and photo documentation)
- ii. Space planning process (block diagram, concept statement)
- iii. Concept sketching
- iv. Application of design principles
- v. Creativity /originality of elements
- v. Design process/ methodology
- vii. Structural integration
- viii. Style
- ix. Color Rendering
- x. Anthropometry and ergonomics
- xi. Furniture Design
- xii. Material selection
- xii. Graphic design (page layout and composition)
- xiii. Portfolio development

Design portfolio to include designs in response to today's situation of urban society, i.e., contemporary spaces required in modern society – needs, realities, value system etc.. The spaces to be considered shall be

: home, office, bank, school, college, public level spaces - restaurant, lounge

(hotel),etc. The list of suggested topics to be covered as design problems:

- Thematic space making with Art and craft forms of our own culture in India – East, West, North, Central and so on.
- Design of built units of various geographical locations and culture by involving historical periods, styles and use of craft in its inherent quality and form - integrating craft and living environment.

Note: At least two major exercises and three minor time problems should be given. Internal markings shall be done in stages and project wise:

- Schematic layouts
- Final layout
- Sectional elevations
- Designs & details

SUGGESTED BOOKS

- Joseph D Chiara, Julius Panero, & Martin Zelnick, Time Saver standards for Interior Design & space planning, 2nd edition, Mc-Graw Hill professional, 2001.
- Francis.D. Ching & Corky Bingelli, Interior Design Illustrated, 2nd edition, Wiley publishers, 2004.
- Maureen Mitton, Interior Design Visual Presentation: A Guide to Graphics, Models, and Presentation Techniques. John Wiley and Sons, 2003
- Robert Rengel, Shaping Interior Space, Fairchild Books & Visuals ,2002
- Neufert Ernest, Architect's Data, Granada pub. Ltd. London, 2000.
- John F. Pile, A history of interior design, Laurence King Publishing, 2005.
- Robin D. Jones, Interiors of Empire: Objects, Space and Identity within the Indian Subcontinent, Manchester University Press; illustrated edition, 2008

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 402	Interior and Construction Technology – IV	2	---	4	6	25	50	25	50	150

OBJECTIVES

- To acquaint the students to building materials such as Timber products, Surface finishing, Adhesives, Painting and Polishing.
- To familiarize the students with construction techniques for use of the above materials in building works.
- To familiarize the student with the basic building construction practices on site/yard.

CONTENTS:

Module-1 Timber Products

Decorative and Commercial Plywood, Ply-board, Block board, Particle board, Wood wool cement board, Fiber board, Compressed straw board, Cement fiber board, Mineral fiber board, Veneers, Laminates ,innovative use of Wood and Glass,etc.

Module-2	Roof Coverings (Conventional)	Clay Tiles (Country, Allahabad, Mangalore tiles etc.), Concrete Tiles, Asbestos Cement Sheets, Aluminium Sheets, Galvanized Iron Sheets, Stone Slating, Shingles, Thatch.
Module-3	Adhesives	Introduction. Natural Adhesives – Animal, Casein, Bituminous. Thermoplastic Adhesives – Polyvinyl Acetate. Thermosetting Adhesives & Plastics - Urea Formaldehyde, Phenol Formaldehyde, Melamine Formaldehyde, Resorcinol Formaldehyde, Epoxide Resins. Rubber Adhesive.
Module 4	Roofs & Trusses (Timber)	Terminology, Single Roof, Double or Purlin Roof, Trussed Rafter Roof, Triple or Framed Roof
Module 5	Partition, Cladding and Panelling	Terminology, Timber and Timber products, Clay and Terracotta Brick and Block, Pre-cast Concrete Block, Wood wool cement, Compressed Straw Board, Glass and Glass Brick
Module 6	Doors and Windows (Timber)	Sliding Door, Sliding-Folding Door & Revolving doors.

APPROACH

- The students would be familiarized with vernacular terminology as prevalent in this part of the country.
- The emphasis will be construction details as applicable to Indian conditions.
- Site visits and market surveys will be an integral part of sessional work.

REFERENCE BOOKS

1. McKay, W.B., "Building Construction Volume I, II, III and IV", Longmans, 1955.
2. Ching, Francis D. K. and Adams, Cassandra, "Building Construction Illustrated", Wiley and Sons, 2000.
3. The Construction of Buildings – Barry Volume I, II, III and IV
4. Chudley, Roy, "Construction Technology", Longman, 2005.
5. Rangwala, S. C., "Building Construction", Charotar Publishing House, 2007
6. Building Materials by SC Rangwala: Charotar Pub. House, Anand

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 403	Computers Graphics II	---	1	2	3	---	50	50	---	100

OBJECTIVES

To orient the student to create two and three-dimensional objects in space with special emphasis on presentation and visualization of interiors using rendering techniques

CONTENTS

UNIT I

SKETCH UP

Orientation towards 3D: 2D to 3D conversion, perspective view, walk through the layout

UNIT II ADOBE ILLUSTRATOR

Section 1

- **Straight Lines:** Using the Pen Tool, Adjusting the Workspace, Arranging Objects, Color Fills
- **Curves:** Drawing Curves (Pen Tool), Anchor Points and Direction Points, Default Fill and Stroke
- **Corners and Curves:** Drawing Corners and Curves (Pen Tool,) Adjusting Anchor Points

Section 2

- **No Smoking Sign:** Fill and Stroke, Basic Shape Tools, Grouping Objects, Layers Panel, Working with Templates, Saving Illustrator Files: Options
- **Super Hero:** Live Trace and Live Paint, Tracing Hand-Drawn Images, Coloring Live Paint Objects, and Brushes Flare Tool

SUGGESTED BOOKS

- Auto Desk, Revit 2017 for Architecture, Sybex, 2016.
- Auto Desk, 3D MAX comprehensive tutorial resources Wiley 2014.
- Sketch up for interior Design. 3D visualizing designing & space planning by Lidya Sloan, WileyPublisher – 2014

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 404	Working Drawing & Presentation	2	2		4	---	50	50	---	100

Objectives

To enable the students to:

- Understand the proper language of the drawing, which is internationally recognized.
- Proper dimensioning & writing style.
- Each & every detail of the organization as per requirements.
- Specifications required as per requirements

Course Content

UNIT I

Design of Residences

- Design and drawing of residences (both apartment and detached house) for various built-up areas and consideration of planning principles
- Judging and analyzing afore mentioned plans
- Calculation of planning efficiency

UNIT II

Working Drawings

- Concept of working drawings & its need & importance
- Drawing & drafting of plan
 - Beam layout & column layout
- Development of elevation
- Horizontal & transversal sections
- Details of staircase
 - Detailing of all drawings, lettering, dimensioning
- Submission details

UNIT II

Presentation Techniques

- Rendering & presentation techniques
- Pen & pencil rendering
- Sciography
- Colour rendering

References

1. Frener, Weirick & Foster, Engineering Drawing & Graphic Technology, Tata McGraw Hills, New Delhi
2. Gill Robert, Rendering with Pen & Ink, Thames & Hudson
3. Muller A.J, Reading Architectural working drawings, Prentice Hall Inc.
4. Shah C S, Architects Handbook, Galgotia Publishing, New Delhi

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 405	Services II	2	1	---	3	25	15	---	60	100

UNIT – Vi

ELECTRICITY

Electrical Installations : Building wiring system. Service wires, metering distribution boards, circuits, MCB cutouts. Conductors, wiring methods, switch boards, electrical devices in the buildings, light and power circuits. Indian electricity rules, relevant provisions of NBC. Preparation of electrical layout scheme for a interior using standard electrical symbols

UNIT III

FIRE SAFETY

Fire – causes and spread of fire. Design considerations for fire safety, Devices for firefighting – portable, built in wetriser system, sprinkler system, fire hydrant. Class of fire and occupancy, study of fire regulations as per NBC

UNIT IV

SAFETY & SECURITY

Security and safety systems – introduction, designing a security system – burglar alarm, CCTV, central alarm systems, intrusion sensors and space sensors. Other services – cable TV, PABX, computer labs – access flooring, server rooms.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 406	Product Design – Futuristic & Craft based	1	1		2	--	50	50	--	100

Objective & Pre-requisite:

- Students must learn the techniques of design the product first and production of the same in any medium they select with different types of materials like metal, wood, clay, plastic, etc.

Module- 1 Section of material, understand the properties of material o Material to work on I unit is PAPER o Products which can be made are:- Pen stand, tissue paper box, gift box, wedding card box, sweets or chocolate box. The drawing with complete size and details must be made.

Module- 2 Material: - Mount board, choksi board Products: - Photo frame, table calendar, wall clock, wall hanging, etc. With proper design and drawing on sheet with details.

Module- 3 Material: - Thermocol Products: - accessories/ props for Birthday Party for theme oriented, etc. All these accessories must be drawn on paper with complete details and color schemes Prepare: Masks for different occasions, Candels, Diyas, Flowers, etc. to orient he theme

Module- 4 Material: - Cloth, wire, ribbon, wool, sutli, etc. Products: - wind chimes, decorative balance, flowers with cloth, ribbon and wool, etc.

Module- 5 Design and make any one product in metal sheet foil or out of waste cans or bottles(glass, plastic, tin) which can be easily cut with scissors or cutters.

Module- 6 Material- clay/ terracotta/ tiles Design, draw and create masks, door handles, knobs of clay hand work. Terracotta- tiles and work on them with ethnic motives create wall murals, table tops, planters, etc.

Module-7 Design on sheets different types of furniture items like different types of tables, chairs, beds and some small items like racks, shelves, bench, planters, etc.

Module- 8 One furniture (with joinery details) to be constructed in workshop, polish, painting, for the purpose of learning the finishes on furniture.

All designs to be made on drawing sheets

TOOLS/ EQUIPMENTS REQUIRED FOR HOLDING PRODUCT DESIGN WORKSHOP: S

issors, paper cutters, pliers, small hammers These are required for cutting the edges of material smoother and turning and twisting of wire, or other materials for better and firm joints.

REFERENCE BOOKS

1. Wood bonding handbook by Stevens & Turner
2. Indian decorative design by Aryan
3. Furniture in color by Synge
4. Furniture making by Collisehon
5. Furniture face lifts by Wagstaff & Thurgood

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
ES 101	Environmental studies	2	1		3	25	15	---	60	100

Fifth Semester

S. No.	Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 501	Interior Design Studio –V	2	---	6	8	25	50	25	50	150
2	IN 502	Interior and Construction Technology – V	2	---	4	6	25	50	25	50	150
3	IN 503	Computers Graphics II	---	1	2	3	---	50	50	---	100
4	IN 504	Furniture Design and Detailing (Commercial)	2	2		4	---	50	50	---	100
5	IN 505	Services III	2	1	---	3	25	15	---	60	100
6	IN 506	Estimation & Costing	2	1	---	3	25	15	---	60	100
7	IN 507	Interior Design for Special Needs	1	1	---	2	25	15	---	60	100
	-----	General Proficiency									
		Total	11	6	12	29					800

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 501	Interior Design Studio –V	2	---	6	8	25	50	25	50	150

OBJECTIVES

- To introduce the basics of designing for retail spaces including showrooms and restaurant interiors and to develop skills required for the same.
- The course concentrates on three stages of commercial spaces with an emphasis on planning show rooms , hospitality spaces
- The main aim is to develop visually literate students who are proficient at analytical thinking, conceptualization and the problem-inquiry, solution cycle. The course also examines the connection between abstract design principles and the physical and visual environments.

CONTENTS

UNIT I

HEALTH CARE INTERIORS

The design of Health care spaces, such as hospitals, consulting, treatment rooms, Diagnostic facilities – study of specialacoustics and functional materials and furniture detailing.

UNIT II

RESTAURANT INTERIORS

Interior designing for multi functional Restaurants and Banquet halls, multi level planning, design and detailing of various work spaces, interactions zones. Design of hospitality spaces such as theme based restaurants, corporate banquet venues etc

SUGGESTED BOOKS

- Designs for 20th century Interiors – Fiona Leolie, VH Publications, London.
- Interior Design; The New Freedom, Barbaralec Diamonstein, Rizzoli International Publications, NewYork, 1982.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 502	Interior and Construction Technology – V	2	---	4	6	25	50	25	50	150

OBJECTIVES

- To introduce and familiarize the students with constituents, manufacturing process/ availability, properties/ characteristics, defects, classification, treatments, preservation, and uses of traditional building materials used in construction.
- To understand the use of the above said building materials in simple building works.

SECTION – A, BUILDING MATERIALS AND SCIENCES

Module-1 Gypsum Products Introduction - Gypsum Board, Suspended Ceiling (Board & Tiles) Gypsum Plaster, Components and Accessories. Joining and finishing.

Module-2 Metals Ferrous – Iron (Pig, Cast & Wrought), Steel, Structural, Sheet and Alloys.

Module-3 Non-Ferrous Aluminum

Module-4 Materials with special reference to Interiors Floor Coverings, Wall Finishes, Ceiling Finishes, Window Dressings, Fabrics/ Upholstery, Hardware

SECTION – B, BUILDING CONSTRUCTION TECHNOLOGY

Module-5 Structural Steel Works Typical metal joinery [mechanical: (riveted & bolted), soldering, brazing welding]. Detailing of Structural Steel Work: Beam to Column joint, Beam to Beam joint, Column Splice, Column Base, Roof Truss to Column joints.

Module-6 Doors, Windows & Partitions (Metals) L and Z section Mild Steel, Pressed Steel section, Aluminum section.

Module-7 Partitions & False Ceiling (Gypsum Board) Construction details of Metal Stud Partition (single layer), Suspended Ceilings.

REFERENCE BOOKS

1. McKay, W.B., "Building Construction Volume I, II, III and IV", Longmans, 1955.
2. Ching, Francis D. K. and Adams, Cassandra, "Building Construction Illustrated", Wiley and Sons, 2000.
3. The Construction of Buildings – Barry Volume I, II, III and IV
4. Chudley, Roy, "Construction Technology", Longman, 2005.
5. Rangwala, S. C., "Building Construction", Charotar Publishing House, 2007
6. Punmia B. C., Jain A. J., and Jain A.J., Building Construction, Laxmi Publications, 2005.
7. Building Materials by SC Rangwala: Charotar Pub. House, Anand

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 503	Computers Graphics II	---	1	2	3	---	50	50	---	100

OBJECTIVES

To orient the student to create two and three-dimensional objects in space with special emphasis on presentation and visualization of interiors using rendering techniques

CONTENTS

UNIT I

SKETCH UP

Orientation towards 3D: 2D to 3D conversion, perspective view, walk through the layout

UNIT II ADOBE ILLUSTRATOR

Section 1

- **Straight Lines:** Using the Pen Tool, Adjusting the Workspace, Arranging Objects, Color Fills
- **Curves:** Drawing Curves (Pen Tool), Anchor Points and Direction Points, Default Fill and Stroke
- **Corners and Curves:** Drawing Corners and Curves (Pen Tool,) Adjusting Anchor Points

Section 2

- **No Smoking Sign:** Fill and Stroke, Basic Shape Tools, Grouping Objects, Layers Panel, Working with Templates, Saving Illustrator Files: Options
- **Super Hero:** Live Trace and Live Paint, Tracing Hand-Drawn Images, Coloring Live Paint Objects, and Brushes Flare Tool

SUGGESTED BOOKS

- Auto Desk, Revit 2017 for Architecture, Sybex, 2016.
- Auto Desk, 3D MAX comprehensive tutorial resources Wiley 2014.

Sketch up for interior Design. 3D visualizing designing & space planning by Lidya Sloan, WileyPublisher – 2014

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 504	Furniture Design and Detailing (Commercial)	2	2		4	---	50	50	---	100

Objective:

To provide the students' knowledge of the Display of Commercial Interiors & its implementation.

Objective of his course is to make the student learn the scope of Display and Sales Promotion with the help of Different types of Displays used in Commercial areas.

Module- 1

Introduction: Display of various products/commodities, display and their scopes for sale, promotion

at shop, City, State, National and International levels.

Classification: Window, Wall, Island, Counter, Atrium, Mobile, Kiosk, Store & Exhibition Display.

Conceptualization: Thematic Message, Seasonal Festival, State & Country oriented Display.

Module- 2

Display Props and Display Media:

Use of Props, Publicity Media, Newspaper Ads, T.V., Hoardings, Posters, Banners, Billboards, Flyer,

Panels, Logo, Trademarks.

- Window Display for sales promotion of different types of products/ commodities
- Use of different devices like blocks, stands, panels.
- Use of different types of lights and colours.
- For shops like Gift Gallery, Leather Goods like Bags, Shoes, Pottery and Kitchenware,

Apparel for kids, ladies and gents (Branded Stores)

Module- 3

Importance of Devices: Lettering, Colour, Lights and different types of Lights to be used for

Display, Mechanical Devices used.

Devises used for Display: Panels, Stands, Blocks.

Use of lettering and designing of logo and trade mark as an exercise on paper.

Module- 4

Planning designing and 3D views in colour using props for expressing 'Theme' or 'Message' in display

COUNTER DISPLAYS

- Types and use of counters in store display
- Importance of Counter Display
- Planning and designing the counter display for Jewellery, spectacles/ shades,
- cosmetic goods and precious goods like Ivory items, precious stones, and sandal

- wood items using theme for display.
- All of the above to be carried out in lecture studio class
- Visits to various stores, malls and exhibitions

Note: Lectures, Demonstrations & visits to various shopping Area, Departmental Stores, Malls, Exhibitions etc.

Presentation: Sketch Files, Drawings with Colours to give clear concept of Theme of Different types of Display.

Practical: Sketching/ drawings of existing display and making sheets on various topics.

REFERENCE BOOKS

1. Designs for 20th century Interiors – Fiona Leolie, VH Publications, London.
2. Worldwide Interiors – International Federation of Interior Architects & Designers, RikuyoSha, Japan, 1987
3. Interior Design: the new Freedom, Barvaralec Diamonstein, Rizzoli International Publications, New York, 1982
4. Interior Colour by Design, Jonathan Poore, Rockport Publishers, 1992.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 505	Services III	2	1	---	3	25	15	---	60	100

OBJECTIVES

- To expose the students to the basic principles of air conditioning, acoustics, electrification and mechanical services.
- To understand the need and applications of air conditioning, acoustics, electrification and mechanical services in buildings with exposure to various systems, methods and fixtures.

CONTENTS

UNIT I

HVAC

Heating Ventilation & Air Conditioning (HVAC) systems : Air conditioning, Mechanical ventilation – mechanical inlet and extraction systems. Functions of air conditioning, Principles of AC, capacity of AC, Types of AC systems – window AC, split, ductable, central AC and their details. Air distribution systems – ducts, air inlets.

UNIT II

FIRE SAFETY

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 NBC

UNIT III

VERTICAL TRANSPORT

Services for multi storied buildings - Vertical transportation systems – Introduction – lifts, escalators vertical & horizontal, definition, location, arrangement, structure, drives, traffic analysis, supervisory control, remote monitoring.

UNIT IV

SAFETY & SECURITY

Security and safety systems – introduction, designing a security system – burglar alarm, CCTV, central alarm systems, intrusion sensors and space sensors. Other services – cable TV, PABX, computer labs – access flooring, server rooms.

UNIT V

BUILDING AUTOMATION AND ENERGY MANAGEMENT

Building automation and energy management – Introduction, History of development of BAS, typical BAS, criteria for choosing the right BAS, open system architecture. Information technology, communications & artificial intelligence in intelligent buildings. Design in computer age, engineering intelligence through nature.

SUGGESTED BOOKS

- Rangwala, S.C. water supply and Sanitary Engineering : Environmental Engineering, 19th ed, Charotar pubhouse, Anand, 2004.
- Electrical wiring and contracting (vol. 1 to vol.4), London. The New era Publishing Company.
- Dr Frith Abnws and others, Electrical Engineering hand book.
- William . J. Guinness, Mechanical and Electrical Systems for Buildings, New York : Mc Graw Hill.
- Derek Clements-Croome, Derek J. Croome, Intelligent buildings: Design, Management and Operation, Thomas Telford Books, London, 2004.
- Albert Ting-pat So, Wai Lok Chan, Intelligent Building Systems, Kluwer Academic Publishers, 2009.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 506	Estimation & Costing	2	1	---	3	25	15	---	60	100

OBJECTIVES

- To equip the students to prepare the Estimate in order to foresee the cost of the work or to implement an interior design project & also to monitor / control project cost.

CONTENTS

UNIT – I INTRODUCTION TO ESTIMATION

Estimation – definition, purpose, types of estimate, and procedure for Estimating the cost of work in order to implement an interior design project or to make products related to interior design like furniture, artifacts etc.

UNIT – II RATE ANALYSIS & ESTIMATION FORMAT

Rate Analysis – definition, method of preparation, quantity & labour estimate for woodwork, steelwork, Aluminum work, glass & its rate for different, thickness & sections, finishing (enamel paint, duco paints, melamine, DU coats, Handpolishing, veneering and laminating) for walls & ceilings. Electrical & plumbing products, wiring, ducting etc., and laying of tiles & wall paneling in the estimate format of the project.

UNIT – III DETAILED ESTIMATE

Detailed Estimate – data required, factors to be considered, methodology of preparation, abstract of Estimate, contingencies, labour charges, bill of quantities, different methods of estimate for interior design works, methods of measurement of works.

UNIT – IV COSTING OF FIXTURES & FITTINGS

Cost of the following items: electrical fitting like, luminaries, fan, cables, switches etc., tiles in skirting & dado, cement plaster, joinery in wood, steel & aluminum, painting to walls – cement paint, oil paints, distemper acrylic emulsion, enamel paint painting to joinery, varnishing, French polishing plumbing equipments like piping, shower panels, cubicles, tubs, Jacuzzis, taps, motors, fountains, false ceiling of 25 aluminum panels, steel & wooden frame work, thermocol etc. wall paneling of ceramic tiles & other tiles of materials suitable for the same, partitions made of materials like aluminum wood, steel etc

UNIT – V INTRODUCTION TO SPECIFICATION

Specification – Definition, purpose, procedure for writing specification for the purpose of calling tenders, types of specification. Specification for different item related to interior design project – woodwork for furniture window frames & pelmets, partitions etc also of materials like steel aluminum glass of various kind. Wall paneling & false ceiling of materials like aluminum, steel, wood, electrical, plumbing, airconditioning & fire fighting equipments.

SUGGESTED BOOKS

- M. Chakraborti, .Estimation, Costing, Specification and Valuation in Civil engineering.
- Dutta, Estimating and Costing, S. Dutta and Co., Lucknow 1983
- S. C. Rangwala, Elements of Estimating and costing, Charoter publishing House, Anand, India, 1984.
- The interior designers guide: to pricing, estimating budgeting. By Theo Susan

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 507	Interior Design for Special Needs	1	1	---	2	25	15	---	60	100

Objectives

To enable the students to:

- Understand the various and diverse needs of people with special needs with regard to interior design and architecture.
- To provide an understanding of the concepts of Barrier Free design, Accessible Design, Universal Design and Design for all.
- Promote Awareness of Adaptable, Accessible, Barrier Free Environments and Universal Design.
- Enforce a conscious application of these design concept and principles in designing interiors.

- To train students to become interior designers as resource persons concerning a non-handicapping environment, universal design and a barrier-free society.

Course Content

UNIT I

Housing Environments for Physically Handicapped, Old age People, Destitute, Orphan, Deaf & Dumb, Mentally Retarded

- Study of existing problems - some reflections of the problems
- Scope and objectives & ways to overcome through designing
- Different research institutions & their functions

UNIT II

Ergonomic Factors &. Anthropometrics Data, Circulation, Work Surfaces for Different Functions, Arrangement &. Clearances, Door Width, Kitchen Counter Height, Counter Width, Furniture Suggested for them & their Details

- For Reading
- Studying
- Dining
- Storing- clothes, books & other daily needs.
- Recreational activity
- Toilet facilities
- Commercial offices
- Health care

UNIT III

Housing Environment for Special Purposes – Needs, Types and Definitions

- Introduction
- Creating interior environment for special needs, special consideration
- Need of people with special need
- Type of Disabilities

UNIT IV

Housing Environment for Special Purposes – Classification and Problems Faced

- Introduction
- Problems faced by people with special needs
- Classification of disabilities: non ambulatory, Semi ambulatory, Sight disabilities, Hearing disabilities, Learning difficulties

UNIT V

Facilities Provided in Recreational Areas, Public Areas Etc.

- Public health centers
- Cinema halls,
- Ramp, slope,
- Parking areas,
- Circulation areas,
- Lifts

References

1. ***CPWD Guidelines for Space Standards for Barrier Free Built Environment for Disabled & Elderly Persons***, CPWD, New Delhi.
2. Joseph De Chiara *et.al.*, ***Time Saver Standards for Building Types***, McGraw Hill International, Singapore, 3rded., Singapore, 1995.
3. Joseph De Chiara *et.al.*, ***Time Saver Standards for Housing & Residential Development***, McGraw Hill International Singapore, 3rded. 1995

Sixth Semester

S. No.	Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 601	Interior Design Studio -VI	2	---	6	8	25	50	25	50	150
2	IN 602	Interior Construction VI	2	---	4	6	25	50	25	50	150
3	IN 603	Interior Landscape	---	1	2	3	---	50	50	---	100
4	IN 604	Restoration & Renovation of Interior	1	2		3	---	50	50	---	100
5	IN 605	Elective I	1	1	---	2	25	15	---	60	100
6	IN 606	UI/UX	2	1		3	25	15	---	60	100
7	IN 607	Entrepreneurship Development	1	1		2	25	15	---	60	100
	-----	General Proficiency									
		Total	9	6	12	27					800

Elective I - A) Sustainable Design B) Interior Photography C) Revitalization of Art & Craft

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 601	Interior Design Studio -VI	2	---	6	8	25	50	25	50	150

OBJECTIVES

- To study and develop innovative schemes for hotel and auditorium interiors. Knowledge of working drawings is also intended.

CONTENTS

UNIT I AUDITORIUM

Spatial and environmental standards for various auditorium – performing arts, cinema, convention centre. Detail schematics of wall paneling, false ceiling and carpeting to satisfy acoustic requirements. Lighting study to develop ideas for foyer, auditorium and stage requirements.

UNIT II FIVE STAR HOTELS

Spatial and service standards for five star hotels – integration of interior design schemes for rooms, restaurants, bars, health clubs, shopping arcade and other guest areas with the general theme of the hotel. Special ideas for suites and banquet halls – contemporary interior schemes to integrate new concepts in lighting and materials.

SUGGESTED BOOKS

- Designs for 20th century Interiors – Fiona Leolie, VH Publications, London.
- Interior Design; The New Freedom, Barbaralec Diamonstein, Rizzoli International Publications, New York, 1982.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 602	Interior Construction VI	2	---	4	6	25	50	25	50	150

OBJECTIVES

- To introduce and familiarize the students with constituents, manufacturing process / availability, properties/ characteristics, defects, classification, treatments, preservation and uses of traditional building materials used in construction.
- To understand the use of these traditional building materials in simple building works.

SECTION – A, BUILDING MATERIALS

- Module-1 Patent Material of Construction** Available under different trade names with their properties specification & use. Vineertex, Mrblex, Fixopan, Anchor Boards, Novapan etc.
- Module-2 Ceramics** Terracotta, faience, Fireclay, Stoneware, Earthen ware, Vitreous China, Porcelain. Jointing and Finishing.

SECTION – B, BUILDING CONSTRUCTION TECHNOLOGY

- Module-3 Prefabrication** Systems – open prefab system, large panel prefab system, joints, pre-casting methods, materials, on-site and off-site prefabrication, components.
- Module-4 Pre-stressed Concrete** Introduction, methods of pre-stressing and their application to large-space structures.

Module-5	Speedy Construction	Methods, Types of floor construction: Beam & Slab, Waffle Grid Slab, Drop Beam & Slab, Flush Slab, Lift Slab Construction; Cast-in-site Service & Stair Cores, Cross Wall & Box Frame Construction.
Module-6	Industrial Construction	Structural Steel Works: Portal Frame Construction, North-Light Truss and Lattice Girder Roof with various roof coverings.

REFERENCE BOOKS

1. McKay, W.B., "Building Construction Volume I, II, III and IV", Longmans, 1955.
2. Ching, Francis D. K. and Adams, Cassandra, "Building Construction Illustrated", Wiley and Sons, 2000.
3. The Construction of Buildings – Barry Volume I, II, III and IV
4. Chudley, Roy, "Construction Technology", Longman, 2005.
5. Rangwala, S. C., "Building Construction", Charotar Publishing House, 2007
6. Punmia B. C., Jain A. J., and Jain A.J., Building Construction, Laxmi Publications, 2005.
7. Building Materials by SC Rangwala: Charotar Pub. House, Anand .
8. Engineering Material-Roy Chowdary.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 603	Interior Landscape	---	1	2	3	---	50	50	---	100

Objective:

Use of Interior and Exterior Spaces awareness of Different types of plants – Indoor & Outdoor Plants. Designing of different Interior spaces.

Module- 1

Design small apartment like 2 BHK/ 3 BHK with complete furniture Layout, Drawing - Plan, Elevation 3D View/Perspective View, Furniture detailing, using Colour schemes, Accessories, and Electrical layout Plan etc.

Module- 2

Design commercial space like small store or Petrol Pumps convince store complete furniture Layout, Drawing - Plan, Elevation 3D view/Perspective View, Furniture detailing, using Colour schemes, Accessories and Electrical layout.

Module- 3

For landscape

- Relation between Outdoor and Indoor Spaces.
- How to relate interior & Exterior Spaces.
- Type of land escape – Hard and soft landscape & its use in Interiors. o Use of materials – Constriction, Ground modeling, Ground cover, laying of grass, stone path ways.

Module- 4

- Potted plants, hanging baskets, shrubs, creepers, Hedges Fences, Tree Guards, Trills, water bodies, Fountain, Sculpture, Artificial pools and different types of lights used in Exteriors and their uses.
- Project on land escape Balcony area/Private gardens with layout, and a Colored perspective.

NOTE: Design to be made by students under the guidance of faculty

REFERENCE BOOKS

1. Indoor Plants by Xania Field
2. World Architecture (With Introduction to landscape Architecture) by G.K. Hiraskar
3. World of house plants by Johans
4. Indoor Garden by Hunter
5. Indoor gardening by Reader Digest Association (London)
6. Japanese homes and gardens by Marcus G. Sims
7. Interior Decoration by Satish Chandra Agarwal

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 604	Restoration & Renovation of Interior	1	2		3	---	50	50	---	100

Objectives

- To understand the reusability of space
- To explore multiple activities and flexible space adaptation
- To understand recycle and reuse of materials
- To understand techniques in alteration and renovation in interiors
- To explore public behavior and spaces for renovation

Course Content:

UNIT I

- Renovation of interiors for class rooms, seminar halls and AV halls – schemes for library, smart class rooms and discussion areas

UNIT II

- Renovation and alteration of interior requirements for gymnasium, indoor stadium and aquatic complex – schemes for interiors of stadium with focus on lighting requirements and visibility.

UNIT III

- Alterations of interiors in saloons, pubs, discotheque and banks, etc. - schemes for the same

UNIT IV

- Renovation and alteration of interiors for airports, MRTS, railway stations and bus terminals – schemes for the same

UNIT V

- Renovation and alteration of interiors for entertainment buildings such as clubs, multiplex and amusement parks – schemes for video games parlour, food court areas and exclusive indoor game areas of clubs

REFERENCE BOOKS

1. Edward D Mills- planning Buildings for administration, entertainment and recreation – Krieger publishers, New York, 2006
2. Carlson Broto- architecture on sports facilities – pg 1 publishing, Spain, 2005
3. Designs for 20th century Interiors – Fiona Leolie, VH Publications, London.
De Chiara and Callender – Time Saver Standards for interior design, 1982

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	

IN 605	Elective I	1	1	---	2	25	15	---	60	100
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I) SUSTAINABLE DESIGN

OBJECTIVE

- To expose the students to the basics of adaptive reuse and recycling.
- To enable the student to understand the need for adaptive reuse of old heritage buildings and applications of using recycled materials.

CONTENTS

UNIT I

NEED FOR ADAPTIVE REUSE

Cultural inheritance – heritage buildings and old structures – ascertaining the structural stability – estimation of the prolonged life of the building – strategies of adaptive reuse – investigation into material finishes etc.

UNIT II

NEED FOR RECYCLING OF MATERIALS

The logic behind recycling – recycling of steel, wood, glass etc - estimation of the quality of recycled timber – criteria for recycling of steel, glass etc.

UNIT III

CONCEPT OF SUSTAINABILITY

Earth summit declaration – definition of sustainability – economic, social and environmental issues – green rating of buildings – criteria for LEED rating.

UNIT IV

RECYCLING OF WASTE WATER

Sullage and sewage – techniques of water purification for sullage – treatment plant for sewage – techniques of biological and chemical purification.

UNIT V

NEED FOR CONSERVATION

Architectural conservation – conservation of heritage and important buildings – levels of intervention – structural, construction related, finishes etc. Revival of old building techniques and finishes.

SUGGESTED BOOKS

- Harimohan Pillai – Heritage conservation and cultural continuity – Saraswatham publishers, 2002.
- Sustainable building design manual – TERI publication, 2004.
- Waste management and recycling – Compiled by C.T. Lakshmanan, SRM University.
- Sandra F Mendler - The HOK Guide book for sustainable design – John Wiley and Sons, Canada, 2002. 5. Conservation guidelines for Pondichery – DTCP, Pondichery – INTACH 2000.

II) INTERIOR PHOTOGRAPHY

OBJECTIVES

- To help the student understand the principles and technology of photography.
- To enable the student to understand the applications of photographs in interior

CONTENTS

UNIT – I PRINCIPLES OF COMPOSITION

Rule of thirds, perspective-worm's eye view, normal eye view, bird's eye view, one-point perspective, two-point perspective, three-point perspective, exercises in composition

UNIT – II PRINCIPLES OF PHOTOGRAPHY

Technical definitions, understanding a camera, anatomy of a SLR camera, technical setting in a SLR camera, different types of lenses

UNIT – III PRINCIPLES OF INTERIOR LIGHTING

Technical definitions, lighting sources, types of lighting fixtures, types of lamps, calculating lighting levels, flash photography, types of flashes, controlling lighting levels with flash photography Exercise in interior lighting photography with artificial light and black and white photos

UNIT – IV PRINCIPLES OF COLOUR

Color rendering in photographic medium, color rendering in photographs under different lighting condition, lighting colors and its effect on a photograph, color filters in a camera Exercise on color photography of interiors

UNIT – IV INTEGRATION

Project work/exercise in integrating all prior units

SUGGESTED BOOKS

1. Point view- The art of architectural photography , E.Manny A Ballan, VNR
2. Professional photography – photographing buildings, David Wilson, Rotovision

iii) REVITALIZATION OF ART & CRAFT

GOAL:

The course provides an understanding of the role of revitalization of Art/craft form in interior spaces.

OBJECTIVES OF THE COURSE:

- Understanding of Art/craft forms as design elements and its relevant application in the modern society.
- Modernization of old craft technology for better forms for interior use.

EXPECTED SKILLS / KNOWLEDGE TRANSFERRED:

- Dexterity; knowledge of materials, process, technology and products of craft forms- production of craft forms and technology.
- Identification of private and public craft activity around the nation – various crafts and its perception in the society - design issues in transforming old craft forms into modern context by keeping its original spirits. Assignment: Select one of the art/ craft form with the consultation of the faculty. 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. Design and produce a product related to interiors in contemporary design.

- Note: The work will be periodically reviewed. The study has to be presented in the form of a report with illustrations and photographs, as a seminar for final assessment, along with the final product to the jury.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 606	UI/UX	2	1		3	25	15	---	60	100

About-

The UI/UX Design Specialization brings a design-centric approach to user interface and user experience design, and offers practical, skill-based instruction centered around a visual communications perspective, rather than on one focused on marketing or programming alone.

Course contents-

Unit 1- Visual Elements of User Interface Design- hat an interface is and what role a designer plays in creating a user interface. Learning how to design and articulate meaning using color, type, and imagery is essential to making interfaces function clearly and seamlessly.

Unit 2- UX Design Fundamentals- Ideation and site mapping, to the creation of paper and digital prototypes. Building on the design skills learned in Visual Elements of User Interface Design. Apply this methodology to produce a digital prototype for a multi-screen app.

Unit 3- Web Design: Strategy and Information Architecture- Challenges of research, planning, setting goals, understanding the user, structuring content, and developing interactive sequences. Different job descriptions in the web design industry and where UX and UI skills fall within this spectrum - The difference between native apps and websites - The difference of agile vs. waterfall approaches - User personas and site personas - User testing

Unit 4- Web Design: Wireframes to prototypes- application of the early UX research to actual user interfaces: the creation of wireframes, high-fidelity mock-ups, and clickable prototypes. Responsive web design and mobile web challenges - Mobile-first approach - Web typography - The relationship between design and programming and whether it is important to know how to code - The different web technologies that make the web work, such as HTML, CSS, JavaScript, server-side coding, and databases.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 607	Entrepreneurship Development	1	1		2	25	15	---	60	100

OBJECTIVES

- To understand and develop the skill of Entrepreneurship in students

CONTENTS

Unit – I: Entrepreneurship – Meaning – Importance, Types – Roles of Entrepreneurs in Economic Development – Qualities of an Entrepreneur – Entrepreneurship as a career.

Unit – II: How to start Business – Product selection – Form of ownership – plant location – Land, Building. Water and Power – Raw Materials – Machinery – Man Power – Other – Infrastructural facilities – Licensing Registration and local byelaws.

Unit – III: Institutional arrangement for Entrepreneurship Development – D.I.C., I.T.C.O.T., S.I.D.C.O., N.S.I.C., M.S.M.E., – Institutional Finance to Entrepreneurs. T.I.I.C., S.I.D.B.I., Commercial Banks – Incentives to small scale Industries.

Unit – IV: Project Report – Meaning and Importance – Project Identification – Contents of Project Report – Formulation of a project report – Project appraisal – Market Feasibility – Technical Feasibility – Financial Feasibility and Economic Feasibility.

Unit – V: Entrepreneurship Development in India – Women Entrepreneurship in India – Sickness in Small scale industries and their remedial measures.

Seventh Semester

S. No.	Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 701	Thesis	2	---	16	18	---	400	200	---	600
2	IN 702	Professional Practice	2	1	---	3	25	15	---	60	100
3	IN 703	Summer Internship viva	---	---	---	6	---	50	50	---	100
	-----	General Proficiency									
		Total	4	1	16	27					800

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 701	Thesis	2	---	16	18	---	400	200	---	600

LEARNING OBJECTIVES:

- Design Thesis, as a dissertation will:
- Be able comprehend the design philosophy, theories, data collection and analysis and application in a chosen area of study.
- Guide students in Report making methodologies and presentation of collected data in a systematic manner for clear understanding.

COURSE OUTLINE:

- Each student is expected to prepare a design thesis based on the topic chosen under an approved guide or mentor.
- Thesis should reflect the knowledge gained from all the courses undertaken by the student in all the previous semesters.
- The particulars of the schedule, content, presentation, format etc. is to be decided by the department from time to time and will be strictly followed.
- At the end of the semester each student is expected to submit all original drawings prepared as per the department specifications. Three copies of the report/dissertation in the specified format should be submitted to the department after the approval of the respective guides.
- The department will schedule the viva voce at its convenience only after the receipt of the thesis by the student. The performance sheet submitted by the guide and thesis committee should be the basis for allowing the student to appear for the final viva voce.
- The end exam is to be conducted by a jury comprising of an external examiner. One internal examiner and head of the department or his nominee.
- Plagiarism check will be undertaken before the internal submissions.

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 702	Professional Practice	2	1	---	3	25	15	---	60	100

OBJECTIVES

- Knowledge about laws and ethics of designers and minimum requirements for establishing own firm.

CONTENTS

UNIT 1: ENTREPRENEURSHIP

Social Entrepreneurship, Business Entrepreneurship, Trading Entrepreneurship, Corporate Entrepreneurship, and Agricultural Entrepreneurship

UNIT 2: BUSINESS FOUNDATION

Timmons Model of Entrepreneurship, Investment Models, Startup Business Models, Business Plans, Pitch presentations, Small Business models

UNIT 3: Legal aspects of business Contracts and Agreements, Conflict Resolution, Arbitration

UNIT 4: Running a Design Business Set up of an independent design business, Hiring processes, Project Scheduling and work delegation, Cost Estimation; Billing, salaries and taxation

UNIT 5: PROFESSIONAL ETHICS Ethics in Profession, Code of conduct

SUGGESTED BOOKS

- Riadh Habash, Green Engineering: Innovation, Entrepreneurship and Design, 2017
- Ted Crawford, AIGA Professional Practices in Graphic Design, Allworth Press, 2008
- Douglas Davis, Creative Strategy and the Business of Design, 2016
- Shan Preddy, How to Run a Successful Design Business:
- The New Professional Practice, Gower Publishing, Ltd., 2011
- Min Basadur, Michael Goldsby, Design-Centered Entrepreneurship, 2016

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 703	Summer Internship viva	---	---	---	6	---	50	50	---	100

OBJECTIVES

Training Rules: Practical Training:

- The Head of Department of Architecture will approve the office of the ‘Practical-Training’ for the student.
- The marks for ‘Practical Training’ will be awarded to each student in accordance with the Regulations and Guidelines issued separately by the University.

Aims of Practical Training:

- The aim of the ‘Practical Training’ is to enable the students to gain the kind and range of practical experience which will prepare them for their likely responsibilities, immediately after qualifying B. Des Course.
- The ‘Practical Training’ should be regarded as an important academic activity. However good the arrangement of training may be, the trainee student, still, has the responsibility to use his own initiative in making the best use of the opportunities which he/she gets during training period and prepare himself/herself for the profession.
- The student should try to seek a variety of experiences in his/her ‘Training office’ to acquaint himself/herself with various works, procedures etc.

GUIDELINES FOR A STUDENT TRAINEE:

HONORARIUM/STIPEND

- Offices usually pay some amount as honorarium/stipend to meet out of pocket expenditure to the trainee. The University shall have no objection if the trainees accept/receive such honorarium/stipend.
- The mode and amount of the honorarium shall depend upon the office and be based upon a mutual agreement between the employing Firm and the trainee. However, it shall neither be a claim of the trainee nor binding on the firm but for proper professionalism and to maintain the dignity of profession, the training office pay a respectable amount as stipend/honorarium.
- The University/Training and Placement cell of the Institute shall not in any way be responsible for the payment against any sorts of damages, whatsoever.

CODE OF CONDUCT FOR THE TRAINEE

- He/she shall abide by the rules, regulations and general instructions of the office/firm.

- He/she shall remain punctual and regular in attendance.
- He/she shall make all efforts to learn the work involved in the profession, and if so required for work, shall attend the office beyond the scheduled time in the office.
- He/she shall respect and obey the senior members of the office/firm.
- He/she shall take up the job with full responsibility and show utmost interest in the work allotted.
- He/she shall inform the institute/training and placement cell about joining in the training office, its address and contact numbers. He/she shall also inform the address of the accommodation acquired during the training period.
- He/she shall remain in regular touch with the University/ 'Training and Placement Cell' and shall keep the Training and Placement Cell fully informed about his/her progress in the training office.
- In case of any complaint or misconduct, the University/Training and Placement Cell may take suitable and strict action against the student.

Eighth Semester

S. No.	Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
			L	T	P/S		Mid-term	Sessional	Viva	Theory	
1	IN 801	Internship	--	---	---	18	---	100	100	---	200
	-----	General Proficiency									
		Total		18		18					200

Course No	Course Title	Periods/Week			Credits	Internals		End		Total Marks
		L	T	P/S		Mid-term	Sessional	Viva	Theory	
IN 801	Internship	--	---	---	18	---	100	100	---	200

OBJECTIVES

Training Rules: Practical Training:

- The Head of Department of Architecture will approve the office of the 'Practical-Training' for the student.
- The marks for 'Practical Training' will be awarded to each student in accordance with the Regulations and Guidelines issued separately by the University.

Aims of Practical Training:

- The aim of the 'Practical Training' is to enable the students to gain the kind and range of practical experience which will prepare them for their likely responsibilities, immediately after qualifying B. Des Course.
- The 'Practical Training' should be regarded as an important academic activity. Howsoever good the arrangement of training may be, the trainee student, still, has the responsibility to use his own initiative in making the best use of the opportunities which he/she gets during training period and prepare himself/herself for the profession.
- The student should try to seek a variety of experiences in his/her 'Training office' to acquaint himself/herself with various works, procedures etc.

GUIDELINES FOR A STUDENT TRAINEE:

HONORARIUM/STIPEND

- Offices usually pay some amount as honorarium/stipend to meet out of pocket expenditure to the trainee. The University shall have no objection if the trainees accept/receive such honorarium/stipend.
- The mode and amount of the honorarium shall depend upon the office and be based upon a mutual agreement between the employing Firm and the trainee. However, it shall neither be a claim of the trainee nor binding on the firm but for proper professionalism and to maintain the dignity of profession, the training office pay a respectable amount as stipend/honorarium.
- The University/Training and Placement cell of the Institute shall not in any way be responsible for the payment against any sorts of damages, whatsoever.

CODE OF CONDUCT FOR THE TRAINEE

- He/she shall abide by the rules, regulations and general instructions of the office/firm.
- He/she shall remain punctual and regular in attendance.
- He/she shall make all efforts to learn the work involved in the profession, and if so required for work, shall attend the office beyond the scheduled time in the office.

- He/she shall respect and obey the senior members of the office/firm.
- He/she shall take up the job with full responsibility and show utmost interest in the work allotted.
- He/she shall inform the institute/training and placement cell about joining in the training office, its address and contact numbers. He/she shall also inform the address of the accommodation acquired during the training period.
- He/she shall remain in regular touch with the University/ 'Training and Placement Cell' and shall keep the Training and Placement Cell fully informed about his/her progress in the training office.
- In case of any complaint or misconduct, the University/Training and Placement Cell may take suitable and strict action against the student.

. JOINING AND LEAVING THE TRAINING OFFICE

- The trainee is expected to join the training office on the scheduled date, and submit his 'Joining Report' on the letterhead of the office duly signed by Head of the Training to the Institute in the Form prescribed for the purpose and contained in the Log Book.
- The trainee must obtain a 'No Dues Certificate' duly and get relieved from the office at the end of the training period or before changing the 'Training Office'. The trainee must submit this 'No Dues Certificate' along with the Log Book.

. CHANGE OF TRAINING OFFICE

- In case of any emergency, a trainee may be permitted to change the training office/place of training once only during the entire period of training. He/she shall inform the Principal/Director/Head of Department/Officer in-charge of the 'Training and Placement Cell', and seek prior permission for such a change.
- The total duration of the practical training shall be the sum of the period of stay in different offices. It shall be in conformity with the 'Duration of Training' as prescribed in the 'Ordinances, Scheme of Examination & Syllabus' of the University

FINAL SUBMISSIONS

- After completion of practical training, the trainee is required to submit the following in the University.
- 'Certificate' of successful completion of the practical training mentioning the attendance in percentage, from the architect.
- 'Daily Diary' with details of the day to day work record, which will be returned to the student after assessment and viva voce examination. The suggested 'Proforma' of the page of the daily diary is available in the prescribed 'Log-Book'.
- 'Training report' supplemented with the prints and documents of work done during practical training. The prints and documents shall be obtained with the permission of the office and shall be duly signed by the 'Supervisor'.
- Training report shall be submitted in three copies. First copy shall be returned to the student after assessment of Continuous Assessment marks and viva voce examination. The second copy shall be retained by the Training and Placement Cell/library. These shall be presented in A-4 size with ring binding.

FAILURES:

- In case the student/trainee remains unsuccessful or fails in completing his/her practical training or viva-voce examination, the matter shall be dealt with in accordance with the relevant 'Rules and Regulations' of the University.