

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI.



Scheme of Teaching and Examinations and Syllabus
M. ARCH. INTERIOR ARCHITECTURE
(Effective from Academic year 2024-25)

INTERIOR DESIGN STUDIO – I [With ToA and CAD]

Course Code:	MAID101	CIE Marks	50
Teaching Hours/Week (L:P: SDA)	1:5:1	SEE VIVA Marks	50
Credits	06	TOTAL	100

Course Objectives

To Understand

1. And introduce the students to Interior Design and their Elements and Principles
2. The evolving method of studies, analysis & design process.
3. To understand in depth, the factors influencing interior Design, space usage and spatial quality of smaller scale designs.
4. Apply varied presentation skills for formulating Interior Design Proposals.
5. Use of 3D modeling software and rendering techniques.

Pedagogy (Method and Practice of Teaching, Self-Study)

1. The studio will be divided into the practical and the theory part. The theory will consist of the faculty introducing and sharing various standards and other material required for the studio work.
2. Practical aspect will involve the site visit and other case study visits by the students for better understanding.
3. The students will also be given reference book list and other online repository portals that they can learn and refer to for the studio.

Module I

Ergonomics & Anthropometry in Interior Spaces

Studies and Introduction to human Dimensions and functions, Space Activity relationships

Module II

Understanding Application of Elements & Principles of Interiors Design (Theory of Aesthetics)

Discussion and Critique of Assigned Projects shall enable students to develop an understanding of 2D-3D design elements and principles that unify them in clear visual and conceptual organization.

Module III

Graphic Representation

Introduction to drawing for Interior Design, projections, perspectives, sketching Interior Environments, digital modeling and digital rendering, quick illustrations, manual sketching and digital Artwork. Presenting materials and Finishes, creating design templates, digital mood boards, digital design library, Digital Illustrations and rendering using Software's.

Module IV

Design Exercise - I

Design of multi-functional small space like studio apartment, loft apartments through the application of afore mentioned principles. Students are expected to follow the design process, programming, space planning, selection of finishes, furniture textures and preparation of professional presentations.

Module V

Design Exercise - II

Design of large spaces like Exhibitions, AV/ Performance spaces, through the application of afore-mentioned principles. Students are expected to follow the design process, programming, space planning, and selection of finishes, furniture textures and preparation of professional presentations.

Course outcomes:

At the end of the course the student will be able to:

1. Apply Elements and Principles of interior design in practice.
2. Resolve complex issues in interior spaces through design language
3. Do detailed studies and analysis of design processes
4. Develop design skills for Institutional spaces & exhibition displays
5. Have the ability to showcase their design through the use of 3d modeling and Rendering software

Assessment Details (both CIE and SEE)

Continuous Internal Evaluation

The CIE will be progressive marking:

Each week discussion will be marked and considered for 50 + Internal Reviews for 50 + External Reviews for 50 + final Portfolio for 50.

Total 200 will be then reduced to 50

Semester End Examination

Will be a VIVA for 50 marks.

The VIVA VOCE examination will be conducted by one external examiner (from academics/profession) and one internal examiner for I, II and III Semesters..

The VIVA VOCE duration will be 20 minutes each per student for I, II and III Semesters

Textbook/ Textbooks

Sl No	Title of the Book	Name of the Author/s	Name of the Publisher	Edition and Year
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- | | | | | |
|-----|---------------------------------------------------------------------------|--------------|-----------------------------|------|
| (1) | Rethinking Design and Interiors:
Human Beings in the Built Environment | Shashi Caan. | Laurence King
Publishing | 2011 |
| (2) | Interior Design | John Pile | Pearson/Prentice Hall | 2003 |

Reference Books

Sl No	Title of the Book	Name of the Author/s	Name of the Publisher	Edition and Year
(1)	Interior design Illustrated	Francis.D.K.Ching Corky Binggeli	Wiley	2018
(2)	Time Saver standards for Interior Design & Space Planning	Joseph de Chiara, Julius Panero and Martin Zelnik	McGraw Hill Professional	2003

INTERIOR DESIGN MATERIALS & CONSTRUCTION – I

Course Code	MAID102	CIE Marks	50
Teaching Hours/Week (L:P:SDA)	2:2:0	SEE VIVA Marks	50
Credits	04	TOTAL	100

Course Objectives

To facilitate the understanding of the properties of materials used in interiors

1. To enable a better understanding of the joineries of wood and
2. To enable a better understanding of the fixtures and fittings of Engineered wood
3. To enable a better understanding of the joineries of Stone
4. To enable a better understanding of Paints and finishes
5. To be able to prepare a specification and estimation for the working drawings of the furniture designed

Pedagogy (Method and Practice of Teaching, Self-Study)

1. The studio will be divided into the practical and the theory part. The theory will consist of the faculty introducing the topic and its application as well as the various techniques employed in the construction process.
2. Practical aspect will involve the site visits and other case study visits by the students for better understanding of the material and its practical application.
3. The students will also be given reference book lists and other online repository portals that they can learn and refer to for the studio.

Module-1

Wood: Physical properties – growth rings, knots, heart wood and sap wood. Colour, water content, Structure. Hard wood and soft wood. Engineered Wood and partition walls

Joinery details dovetail, scissor joint etc., Uses & defects of wood.

Carpentry finishes, Engraving and carving of wood, polishing and painting of wood

Bamboo and cane: properties and joineries.

Module-2

Engineered wood

Engineered Wood and partition walls and Panelling

Joinery fittings and fixtures

Module-3

Stone: Natural & engineered stones.

Granite –types of granite – based on composition, finishes. Uses of granite.

Marble – composition & physical characteristics, finishes. Uses & applications of marble.

Engineered stones – composition, properties. Uses & applications.

Module-4

Miscellaneous materials such as linoleum, asphalt, cork, rubber, Leather, paper, rexine, paints & varnishes, laminates & veneers.

Paints, Wall finishes and Ceiling finishes, Floor finishes - epoxy and micro topping

False Ceilings - fixing and detailing

Module-5

Estimation and costing and preparation of BOQ for the interiors [for the materials covered this semester]

NOTE: Working drawing of furniture and or object designed to be completed for the topics covered where relevant

Course outcomes:

At the end of the course the student will be able to understand and

1. Fundamentals of materials used for interior Architecture and techniques of construction.
2. Design and detail the fixtures and fittings of Engineered wood
3. Design and detail the joineries of Stone
4. The application of Paints and finishes
5. Be able to prepare a specification and estimation for the working drawings of the furniture designed

Assessment Details (both CIE and SEE)

Continuous Internal Evaluation

The CIE will be progressive marking:

Each Plate will be marked for 10 [80 total] + Viva (for every CIA) 50 + Case Study Presentation 20 + final Portfolio for 50.

Total 200 will be then reduced to **50 marks**

Semester End Examination

Will be a VIVA for **50 marks**.

The VIVA VOCE examination will be conducted by one external examiner (from academics/profession) and one internal examiner for I, II and III Semesters.

The VIVA VOCE duration will be 15 minutes each per student for I, II and III Semesters

Textbook/ Textbooks

Sl No	Title of the Book	Name of the Author/s	Name of the Publisher	Edition and Year
(1)	Construction materials for interior design	William Rupp, Arnold Friedmann, Philip F. Farrell	Whitney Library of Design	1989, Digitized 2007

Reference Books

Sl No	Title of the Book	Name of the Author/s	Name of the Publisher	Edition and Year
(1)	Modern projects in wood, metal, & plastics	Patrick E. Spielman	Bruce Publishing Company	1964. Digitized 2010

THEORY AND HISTORY OF AESTHETICS & INTERIOR DESIGN

Course Code	MAID103	CIE Marks	50
Teaching Hours/Week (L:P:SDA)	3:0:1	SEE Marks	50
Credits	04	Exam Hours	03

Course Objectives

1. To facilitate the understanding of evolution of aesthetics through history
2. To enable a better understanding of use of critical judgement in design
3. To introduce colour and the principles of design and their application
4. To facilitate the understanding of evolution of various styles of interior design and design movements
5. To adapt historical built forms to modern interiors

Pedagogy (Method and Practice of Teaching, Self-Study)

1. The pedagogy will focus on aesthetics as a common thread that will combine ornamentation, colour, cognition and the principles of design together
2. Both Indian and Western examples will be used to explain these concepts
3. Use of visuals, video and audio will be used to augment the teaching process
Seminars and talks from the leading experts in the field will be planned for relevant topics

Module-1

Introduction To Aesthetics

History of aesthetics – Greek, Indian, African, Arab & Western medieval aesthetics.

Modern aesthetics – AG Baumgarten, Fredrick Wilhelm, Joseph, Schelling, Adolf Loos

Aesthetic realism. Aesthetics & science. Introduction to the western aesthetics & Indian Aesthetics relating to the spaces, surfaces and interior designing with aesthetics. Study of relation between the traditions of architecture & aesthetics.

Module-2

Introduction to the western aesthetics & Indian Aesthetics relating to the spaces, surfaces and interior designing with aesthetics. Study of relation between the traditions of architecture & aesthetics.

Critical Judgement & Cognitive Learning

Understanding the concept of critical judgment.

Design related cognitive learning

Module-3

Advanced Study on Colour

Physics of colour, spectral colours, colour of objects. Perception.

Theories of colour – Trichromatic theory. Additive & Subtractive colours. Traditional colour theories, colour wheel, RYB colour model, Warm & cool colours, tint and shades, colour harmony.

Psychology of colour, Colour & mood, Principles of colour psychology, brand meaning.

Module-4

Universal Design Movements

Landmark events in the history of international design movement historical development of artifact

overview of major styles like Regency, Victorian, Colonial, Arts and Crafts,, Art Nouveau, Eclecticism,

Modernism, Art Deco, Late 20th century and Post Modernism, Deconstructivism and Latemodernism

Module-5

Modern Design Movements in India

Industrialization changes in technology and production systems impact on lifestyle & interiors

Modern movement & its impact in India Shift from historical to modern methods of building spaces, change in the interior

Indian Elements of space making – Concepts of Traditional symbols and spatial organization.

The **adaptive re-use** of Architectural Built forms for the modern Interiors.

Course outcomes:

At the end of the course the student will be able to:

1. Understand different theories of aesthetics & concepts of Design.
2. Use of colour and the sustainable ways of using colour for better design outcome
3. Apply the concept of critical judgment to design
4. Learn about historical development of Interior design and different movements
5. Apply and adapt historical built forms to modern interiors

Assessment Details (both CIE and SEE)

CIE: The CIE will be based on Internal Tests and Assignments.

Internal tests:

- One test of 50 marks will be conducted for Every CIA cycle. Total 3 tests per semester.
- One Assignment for 20 marks or two assignments for 10 marks each will be considered for each CIA cycle.
- Assignments will consist of Sketches for 10 marks and written answers for 10 marks. It can also be 10 marks for Quiz and 10 marks for seminar presentation.
- Any combination of the above will be considered for the 20 marks component.
- The total of 50+20 =70 will be reduced to 50

SEE: Will be a written exam for 100 marks reduced to 50.

Question paper pattern:

The SEE question paper will be set for 100 marks and the marks scored will be proportionately reduced to 50.

- The question paper will have ten full questions carrying equal marks.
- Each full question is for 20 marks.
- There will be two full questions (with a maximum of four sub questions) from each module.

The students will have to answer five full questions, selecting one full question from each module.

Textbook/ Textbooks

Sl No	Title of the Book	Name of the Author/s	Name of the Publisher	Edition and Year
(1)	Interior Color by Design A Design Tool for Architects, Interior Designers, and Homeowners	Jonathan Poore, Sandra L. Ragan	Rockport Publishers	1994
(2)	Lighting Spaces No 2	Roger Yee	Visual Reference Publications, Inc	2008

Reference Books

Sl No	Title of the Book	Name of the Author/s	Name of the Publisher	Edition and Year
(1)	The Fundamentals of Interior Architecture	John Coles, Naomi House	Bloomsbury Academic	2007
(2)	Essay:White Walls, Designer Dresses: The Fashioning of Modern Architecture	Mark Wigley	MIT Press	2001
(3)	Colour Harmony	Bride M Whelan	Rockport Publishers	1994
(4)	Essay: Spoken into void: The principles of cladding	Adolf Loos	Collected Essays	1897 – 1900
(5)	Essay: A Wall of Books: The Gender of Natural Colours in Modern Architecture	William W. Braham.		2003
(6)	Essay: Sexuality and space: The split wall: Domestic Voyeurism	Beatriz Colomina	Princeton Architectural Press	1992

BUILDING SERVICES FOR INTERIORS - I

Course Code	MAID104	CIE Marks	50
Teaching Hours/Week (L:P:SDA)	2:0:1	SEE Marks [THEORY]	50
Credits	03	Exam Hours	03

Course Objectives

1. To facilitate the understanding of thermal comfort in building interiors
2. To enable a better understanding of lighting and types of fixtures and forms of lighting
3. To introduce fundamentals of acoustics and the various acoustical materials

Pedagogy (Method and Practice of Teaching, Self-Study)

1. The pedagogy will focus on both theory and practical aspects of the subject
 2. Use of instruments and software along with site visits to understand the concepts
 3. Use of visuals, video and audio will be used to augment the teaching process
- Seminars and talks from the leading experts in the field will be planned for relevant topics

Module-1**Water Supply & Sanitation**

Comprehensibility of all the building services - water supply, plumbing - implications on interior Layout

Module-2**Lighting**

History of lighting, Light fixtures – types and characteristics.

Types of lighting – task, accent & general lighting and its methods.

Forms of lighting – indoor & outdoor. Lamps – ballast, fluorescent, halogen, neon, LED & CFL

Photometric studies. On stage & set lighting. Photometry – Illuminance, Luminance, Lux. Colour properties – colour temperature, colour rendering index.

Light art, Light sculptures. Examples of light art works by Chul Hyun Ahn, Dan Flavin, Olafur Eliasson, James Turrel, WAttraut Cooper, Bruce Munro, Dan Roosegaarde+

Module-3

Illumination Specification of illumination requirements for each given use area-Analysis of lighting quality - Designing illumination for complex project types, including analysis of lighting criteria, development of design concepts and complete documentation requirements.

Module-4**Fire Fighting Systems**

Introduction: Classification of fire, causes & hazards; Grading of structural elements for its fire resistance as per NBC. Classification of building types as per NBC and brief description of characteristics of combustible and non-combustible materials.

Concepts in passive fire protection in buildings: Escape routes, fire driveways, fire refuge area, fire assembly areas, pressurization, travel distance, fire tower and compartmentation, fire signages etc.

Module-5**Regulations Of Safety & Services**

Regulations of NBC for all the services mentioned,

Course outcomes:

At the end of the course the student will be able to:

1. Understand implications of water supply and Sanitation on interior design
2. Design the interiors based on safety regulations
3. Design interiors with respect to Fire Safety
4. How to inculcate acoustical treatment into interiors
5. Apply all services into an interior design layout

Assessment Details (both CIE and SEE)

CIE: The CIE will be based on Internal Tests and Assignments.

Internal tests:

- One test of 50 marks will be conducted for Every CIA cycle. Total 3 tests per semester.
- One Assignment for 20 marks or two assignments for 10 marks each will be considered for each CIA cycle.
- Assignments can consist of Sketches for 10 marks and written answers for 10 marks. It can also be 10 marks for Quiz and 10 marks for seminar presentation.
- Any combination of the above will be considered for the 20 marks component.
- The total of 50+20 =70 will be reduced to 50

SEE: Will be a written exam for 100 marks reduced to 50.

Question paper pattern:

The SEE question paper will be set for 100 marks and the marks scored will be proportionately reduced to 50.

- The question paper will have ten full questions carrying equal marks.
- Each full question is for 20 marks.
- There will be two full questions (with a maximum of four sub questions) from each module.

The students will have to answer five full questions, selecting one full question from each module.

Textbook/ Textbooks

Sl No	Title of the Book	Name of the Author/s	Name of the Publisher	Edition and Year
(1)	Building Systems: Design Technology and Society	Kiel Moe, Ryan.E.Smith	Routledge	2012
(2)	Fundamentals of Lighting	Susan M. Winchip	Bloomsbury Academic	2nd Edition

Reference Books

Sl No	Title of the Book	Name of the Author/s	Name of the Publisher	Edition and Year
(1)	Managing Water Supply and Sanitation in Emergencies (Oxfam	John Adams	Oxfam	1999

ERGONOMICS AND FURNITURE DESIGN & DETAILING

Course Code:	MAID106	CIE Marks:	50
Teaching Hours/Week (L:P:SDA):	2:0:2	SEE VIVA Marks:	50
Credits : 03		TOTAL	100

Course Objectives

- To introduce ergonomics and human factor design
- To enable a better understanding of use of critical judgement in furniture design and detailing
- To introduce different materials and their applications for various types of furniture
- To enable a better understanding of fabrication and manufacturing processes
- To introduce digital modelling software and fabrication methods

Pedagogy (Method and Practice of Teaching, Self-Study)

1. The pedagogy will focus on both the theoretical and practical aspects of furniture design
 2. Factory visits to understand the process of manufacturing furniture
 3. Seminars and talks from the leading experts in the field will be planned for relevant topics
- Visit to leading brand showrooms/studios to understand the anthropometry and current market trends

Module-1

Ergonomics

Introduction to ergonomics & human factor design. Domains of specialization in the discipline of ergonomics. Methods of analysis.

Module-2

Theory of Furniture Design & Design Parameters

Descriptive & normative theories, intensive studies of furniture, theory of manufacturing and usability, beauty and aesthetics of furniture, semiotics of furniture, aesthetics of furniture.

Module-3

Materials In Furniture Design

Bentwood, tubular steel, plywood, chipboard, plastics, paper. Its properties, applications and designers who patronized them.

Concepts of Furniture Design Study of various styles, systems & products available in the market.

Module-4

Trends In Furniture Design

Marcel Bruer, Harry Bertoia, Mario Bellini, Achille Castiglioni, Antonio Citterio, John Cobb, Joe Colombo, Ray & Charles Eames, Tom Dixon, Gio Ponti, Arne Jacobsen
 Florence Knoll, Ross Lovegrove, Mackintosh, Enzo Mari, Verner Pantone, Jean Provue, Patricia Urquiola, Philippe Starck, Karim Rashid.

Module-5

Fabrication

Manufacturing & fabrication. Prefabrication & its advantages. Composite fabrication, metal fabrication, micro fabrication & optics fabrication. Rapid proto typing, solid free form fabrication

Digital Modelling& Fabrication

Machines for fabrication- CNC router, laser cutter, 3D printers. Software for modelling- Blender

Course outcomes:

At the end of the course the student will be able to:

1. Greater understanding of ergonomics
2. Apply critical judgment of furniture design & detailing.
3. Judge different materials and their applications for various types of furniture
4. To fabricate furniture and provide details for manufacturing of furniture
5. Use digital modeling for furniture fabrication

Assessment Details (both CIE and SEE)

Continuous Internal Evaluation

The CIE will be progressive marking:

Each week discussion will be marked and considered for 50 + Internal Reviews for 50 + External Reviews

for 50 + final Portfolio for 50.

Total 200 will be then reduced to 50

Semester End Examination

Will be a VIVA for 50 marks.

The VIVA VOCE examination will be conducted by one external examiner (from academics/profession) and one internal examiner

The VIVA VOCE duration will be 20 minutes each per student

Textbook/ Textbooks

Sl No	Title of the Book	Name of the Author/s	Name of the Publisher	Edition and Year
(1)	Furnish – Furniture & Interior Design for the 21st Century	Birga Meyer, Robert Klanten, Sophie Lovell	Prestel Publications	2007, Digitized 2011
(2)	Product design	Tucker Veimeistu	PBC intl	1994

ADVANCED SOFTWARE FOR INTERIORS [ELECTIVE]

Course Code	MAID115A	CIE Marks	100
Teaching Hours/Week (L:P:SDA)	0:0:2	SEE Marks	-
Credits	03	TOTAL	100

Course Objectives

1. To facilitate the understanding the concepts of Computer Aided Design
2. To enable learning of software skills
3. To introduce the latest software

Pedagogy (Method and Practice of Teaching, Self-Study)

1. The pedagogy will focus on rigorous practice of software skills through exercises and applications of the software learnt in other subjects like the design studio and the furniture design studio.
2. Workshops from the leading experts in the field will be planned for relevant topics

Module-1**3D Modelling**

3D Modelling using Revit, Auto CAD. Wire frame, surface & solid modelling.

Module-2**Rendering**

Rendering using 3DSMax & Presentation Techniques

Module-3**Walkthrough**

Presentation through still images & walkthrough

Module-4**Graphics**

Adobe Photoshop & Illustrator for graphic design & corrections

Aldus Photo style, Adobe premiere sound forge, Director & razor pro for A-V Editing

Alternative software – Accurender, Artisan, Spotlight ray tracer.

Module-5**Simulation Software**

Lightscape; CATIA Eco Software.

Course outcomes:

At the end of the course the student will be able to:

1. Apply the concepts of Computer Aided Design
2. Acquire and use advanced software in their design
3. Apply and use the latest software in their design

Assessment Details (CIE only)

Continuous Internal Evaluation: The CIE will be based on Internal Tests and Assignments.

Internal tests:

- One test/submission of 50 marks will be conducted for Every CIA cycle. Total 3 per semester.
- One Assignment for 20 marks or two assignments for 10 marks each will be considered for each CIA cycle.
- Assignments will consist of 10 marks for Quiz and 10 marks for seminar presentation or 10 marks for each submission of the exercises given.
- Any combination of the above will be considered for the 20 marks component.

The total of 50+20 =70 will be converted to 100

Textbook/ Textbooks

SI No	Title of the Book	Name of the Author/s	Name of the Publisher	Edition and Year
(1)	Mastering Autodesk Revit Architecture 2013	Phil Read, James Vandezande, Eddy	Wiley Publishing	2012
(2)	Interior Design Visual Presentation: A Guide to Graphics, Models and Presentation	Maureen Mitton	Wiley Publishing	2018

CRAFT IN INTERIOR DESIGN [ELECTIVE]				
Course Code	MAID115B	CIE Marks	100	
Number of contact Hours/Week	2:0:1	SEE Marks	-	
Credits	03	TOTAL	100	
Course objectives:				
<ol style="list-style-type: none"> 1. Awareness of rich traditions of Architectural craft 2. Ways of imagining the potential of existing systems 3. Broaden the mind beyond available construction systems 4. Explore possibilities in Crafting of Architecture 				
COURSE CONTENT:				
<ul style="list-style-type: none"> • Introduction • Case Studies • Field Trip , Research to identify potential area of interest for participants to focus further on • Interaction with Craftsmen to understand the function, material and technique • Design Exercises focusing on crafting certain elements / parts of a Building or the overall 				
COURSE METHODOLOGY:				
<ul style="list-style-type: none"> • Lecture Sessions, • Case Studies, • Discussions, • Research, • Field Trips, • Short Design Exercises. 				
COURSE OUTCOME:				
<ul style="list-style-type: none"> • Appreciate finer nuances of making of Architecture into a reality. • Overview towards the wealth of traditional / existing practices. • Insight to potential direction of evolution of making of Architecture. • Attempts to take forward existing systems. • Introduction of systems form across the border of the discipline. • Develop ability to craft making of Architecture. 				
Assessment Details (CIE only)				
Continuous Internal Evaluation: The CIE will be based on Internal Tests and Assignments.				
Internal tests:				
<ul style="list-style-type: none"> • One test/presentation of 50 marks will be conducted for Every CIA cycle. • One Assignment for 20 marks or two assignments for 10 marks each will be considered for each CIA cycle. • Assignments will consist of 10 marks for Quiz and 10 marks for seminar presentation or 10 marks for each submission of the exercises given. • Any combination of the above will be considered for the 20 marks component. 				
The total of 50+20 =70 will be converted to 100				
REFERENCES:				
Sl	Title of the Book	Name of the	Name of the	Edition and
1	Arts & Crafts Architecture	Peter Davey	Phaidon Press	1997, London.
2	Arts & Crafts Architecture	Maureen Meister	University Press of New England	2014
3	Studio Craft & Technique for Architects	Miriam Delaney	Laurence King Publishing	2015
4	Local Architecture: Building Place, Craft and Community	Brian Mackay-Lyons	Princeton Architectural Press, New York	2014