K.R. MANGALAM UNIVERSITY

THE COMPLETE WORLD OF EDUCATION

# SCHOOL OF ARCHITECTURE AND DESIGN (SOAD)

## Programme Handbook

**(Programme Structure and Evaluation Scheme)**

**Bachelor of Design (Hons. / Hons. with Research)**

**in Interior Design**

**Undergraduate Course 2024–28**

**Programme Code: 223**

**FOUR YEAR UNDERGRADUATE PROGRAMME**

**As per National Education Policy 2020**
**(Multiple Entry and Exit in Academic Programmes)**
**(with effect from 2024-25 session)**

# Contents

# 1. Preface

The outcome-based curriculum strengthens students' experiences and prepares the students for both, academia and employability, sustainability, and life-long learning.

The program reflects the promise to accomplish the learning outcomes by studying the courses. The graduate attributes encompass values related to well-being, emotional stability, critical thinking, social justice, and also skills for entrepreneurship.

The redesigned curriculum focuses on the multi-disciplinary nature of the field of design with an emphasis on core design subjects with skills to represent the process of design graphically. Another important part is the aspect of realizing the concept and graphical representation into a workable design. Students are exposed to research and hands-on project-based education with active studio sessions. Visiting faculty and external examiners are professionals and academicians chosen from the field of design. Students develop their design with inputs from highly driven team of faculty members and working professionals.

The K.R. Mangalam University hopes that the outcome-based curriculum will help students realize their careers as informed, sensitive, and creative architects and designers.

This curriculum enhances students' educational experiences and equips them with the necessary skills for academic success, employability, sustainability, and lifelong learning.

Each program demonstrates its commitment to achieving the desired learning outcomes through the study of its respective courses. The graduate qualities contain ideals pertaining to well-being, emotional resilience, critical analysis, social equity, and abilities for entrepreneurship.

The revamped curriculum prioritizes the interdisciplinary aspect of Interior Design, with a particular emphasis on fundamental design subjects and the ability to visually depict the creative process. An additional crucial step involves translating the concept and graphical representation into feasible thoughts. Students receive a comprehensive education that includes study and practical project-based learning, facilitated by interactive studio sessions. Visiting faculty and external examiners are experts and scholars selected from the Interior Design field. Students collaborate with a motivated team of faculty members and industry experts to enhance their design.

The K.R. Mangalam University anticipates that the outcome-based curriculum will enable students to achieve their career aspirations as knowledgeable, empathetic, and innovative architects and designers.

K.R. Mangalam University meticulously plans all its programmes with a strong focus on the welfare and achievement of its students. The university has adopted an outcome-based curriculum for all of its programs. The objective of this method is to offer a curriculum that prioritizes the needs and interests of the students, with a clear focus on attaining specified desired results. The aim is to organize the educational experiences in a way that focuses more on achieving specific outcomes.

The outcome-based curriculum improves students' educational experiences and provides them with the essential skills needed for success in academia, employability, sustainability, and lifelong learning.

Every programme showcases a dedication to attaining the intended learning objectives by studying its specific courses. The graduate qualities cover a variety of values related to well-being, emotional resilience, analytical thinking, social equity, and abilities for business innovation.

The updated curriculum prioritises the multidisciplinary aspect of the art profession, specifically highlighting fundamental art & design disciplines and the development of skills linked to graphical representation of the creative process. Another vital step entails transforming the abstract concept and visual depiction into a practical and achievable art practice. Students are given chances to actively participate in research and project-based learning through interactive studio sessions. Visiting professors and external examiners are experts chosen for their professional qualifications and academic background in the subject of Interior Design, demonstrating expertise and experience. The fine art creation process entails a cooperative effort between students and a specialised team of academic members and industry experts who offer essential advice and guidance.

The K.R. Mangalam University aims to enhance students' journey towards becoming well-informed, compassionate and inventive professionals in the realm of architecture and design by implementing an outcome-based curriculum.

K.R. Mangalam University was founded in the year 2013 by Mangalam Edu Gate, a company incorporated under Section 25 of the Companies Act, 1956.

**Uniqueness of KRMU**

i. Enduring legacy of providing education to high achievers who demonstrate leadership in diverse fields.
ii. Protective and nurturing environment for teaching, research, creativity, scholarship, social and economic justice.

**Education Objectives**

i. To impart undergraduate, post-graduate and Doctoral education in identified areas of higher education.
ii. To undertake research programmes with industrial interface.
iii. To integrate its growth with the global needs and expectations of the major stake holders through teaching, research, exchange & collaborative programmes with foreign, Indian Universities/Institutions and MNCs.
iv. To act as a nodal center for transfer of technology to the industry.
v. To provide job-oriented professional education to the student community with particular focus on Haryana.

# 2. NEP-2020: Important features integrated in the curriculum

K.R. Mangalam University has adopted the National Education Policy NEP-2020 to establish a holistic and multidisciplinary undergraduate education environment, aiming to equip our

students for the demands of the 21st century. Following the guidelines of NEP-2020 regarding curriculum structure and duration of the undergraduate programme, we now offer a Four-Year Undergraduate Programme with multiple entry and exit points, along with re-entry options, and relevant certifications.

- **UG Certificate** after completing 1 year (2 semesters with the required number of credits) of study, and an additional vocational course/internship of 4 credits during the summer vacation of the first year.
- **UG Diploma** after completing 2 years (4 semesters with the required number of credits) of study, and an additional vocational course/internship of 4 credits during the summer vacation of the second year.
- **Bachelor's Degree** after completing 3-year (6 semesters with the required number of credits) programme of study.
- 4-year **Bachelor's Degree (Honours)** with the required number of credits after eight semesters programme of study.
- Students who secure 75% marks and above in the first six semesters and wish to undertake research at the undergraduate level can choose a research stream in the fourth year. Upon completing a research project in their major area(s) of study in the 4th year, a student will be awarded **Bachelor's Degree (Honours with Research)**.

Advantage of pursuing 4-year Bachelor's degree programme with Honours/Honours with Research is that the Master's degree will be of one year duration. Also, a 4-year degree programme will facilitate admission to foreign universities.

| S. No. | Broad Categories of Courses | Minimum Credit Requirement for Four Year UG Program |
|---|---|---|
| 1 | Major (Core) | 80 |
| 2 | Minor | 32 |
| 3 | Multidisciplinary | 09 |
| 4 | Ability Enhancement Course (AEC) | 08 |
| 5 | Skill Enhancement Course (SEC) | 09 |
| 6 | Value-Added Course (VAC) | 06-08 |
| 7 | Summer Internship | 02-04 |
| 8 | Research Project/Dissertation | 12 |
| 9 | Total | 160 |

## 2.1 Categories of Courses

**Major**: The major would provide the opportunity for a student to pursue in-depth study of a particular subject or discipline.

**Minor**: Students will have the option to choose courses from disciplinary/interdisciplinary minors and skill-based courses. Students who take a sufficient number of courses in a discipline or an

interdisciplinary area of study other than the chosen major will qualify for a minor in that discipline or in the chosen interdisciplinary area of study.

***Students have multiple minor streams to choose from. They can select one minor stream from the available options, which will be pursued for the entire duration of the programme.***

**Multidisciplinary** (Open Elective): These courses are intended to broaden the intellectual experience and form part of liberal arts and science education. These introductory-level courses may be related to any of the broad disciplines given below:

- Natural and Physical Sciences
- Mathematics, Statistics, and Computer Applications
- Library, Information, and Media Sciences
- Commerce and Management
- Humanities and Social Sciences

***A diverse array of Open Elective Courses, distributed across different semesters and aligned with the aforementioned categories, is offered to the students. These courses enable students to expand their perspectives and gain a holistic understanding of various disciplines. Students can choose courses based on their areas of interest.***

**Ability Enhancement Course (AEC):** Students are required to achieve competency in a Modern Indian Language (MIL) and in the English language with special emphasis on language and communication skills. The courses aim at enabling the students to acquire and demonstrate the core linguistic skills, including critical reading and expository and academic writing skills, that help students articulate their arguments and present their thinking clearly and coherently and recognize the importance of language as a mediator of knowledge and identity.

**Skills Enhancement Courses (SEC)**: These courses are aimed at imparting practical skills, hands-on training, soft skills, etc., to enhance the employability of students.

**Value-Added Course (VAC)**: The Value-Added Courses (VAC) are aimed at inculcating Humanistic, Ethical, Constitutional, and Universal human values of truth, righteous conduct, peace, love, non-violence, scientific and technological advancements, global citizenship values and life-skills falling under below-given categories:

- Understanding India
- Environmental Science/Education
- Digital and Technological Solutions
- Health & Wellness, Yoga education, Sports, and Fitness

**Research Project / Dissertation**: Students choosing a 4-Year Bachelor's degree (Honours with Research) are required to take up research projects under the guidance of a faculty member. The students are expected to complete the Research Project in the eighth semester. The research outcomes of their project work may be published in peer-reviewed journals or may be presented in conferences /seminars or may be patented.

# 3. University Vision and Mission

## 3.1 Vision

K.R. Mangalam University aspires to become an internationally recognized institution of higher learning through excellence in interdisciplinary education, research, and innovation, preparing socially responsible life-long learners and contributing to nation-building.

### 3.2 Mission

- Foster employability and entrepreneurship through futuristic curriculum and progressive

pedagogy with cutting-edge technology

- Instill notion of lifelong learning through stimulating research, Outcomes-based education, and innovative thinking
- Integrate global needs and expectations through collaborative programs with premier universities, research centres, industries, and professional bodies.
- Enhance leadership qualities among the youth having understanding of ethical values and environmental realities

# 4. About the School

The **School of Architecture & Design (SOAD)** offers a robust, interdisciplinary education, providing students with hands-on experience through **experiential and project-based learning**. The curriculum is designed to foster innovation and technical proficiency across various design fields.

SOAD offers seven key programs:

1. **Bachelor of Architecture (B.Arch)** – A five-year program that develops visionary architects with a strong foundation in design, construction, and environmental sustainability.
2. **Bachelor of Design (B.Des) in Fashion Design** – A four-year program focused on fostering creativity and technical skills in fashion, preparing students for the dynamic fashion industry.
3. **Bachelor of Design (B.Des) in Interior Design** – Prepares students to design functional and aesthetically pleasing interior spaces through a combination of creativity, technical knowledge, and practical applications.
4. **Bachelor of Design (B.Des) in Textile Design** – Emphasizes innovative textile creation with an emphasis on sustainability and traditional craftsmanship.
5. **Bachelor of Fine Arts (B.F.A)** – Explores various visual arts disciplines such as painting, sculpture, and graphic arts.
6. **Bachelor of Design (B.Des) in Game Design & Animation** – A specialized program focused on designing interactive games and animations, merging creative storytelling with technical skills.

7. **Bachelor of Design (B.Des) in UX UI & Interaction Design** – Concentrates on creating user-centric digital solutions, emphasizing user experience (UX), user interface (UI), and interaction design.

SOAD emphasizes **experiential learning** through **project-based education**, giving students practical exposure to real-world challenges. This is further enhanced through **site visits, study tours, guest lectures**, and **industry integration**, ensuring students gain valuable insights and experience in their respective fields. The school maintains strong industry connections, enabling students to engage with leading professionals and firms in architecture, design, and related industries.

# 5. School Vision and Mission

**Vision:** To be a leading institution that develops innovative and sustainable design thinkers who shape the future of Architecture and Design globally.

**Mission:**

- Provide a comprehensive structured learning experience that develops strong cognitive thinking and skills in the field of architecture and design.
- Foster a collaborative and inclusive learning environment that encourages creativity and critical thinking.
- Promote sustainable and ethical design practices that address global and local challenges.
- Instill a strong foundation of ethical principles, ensuring graduates act with integrity and social responsibility in their professional endeavours.
- Engage with the community and industry to advance the role of architecture and design in society.

# 6. About the Programme

The **Bachelor of Design (Hons. / Hons. with Research) Interior Design** program is a four-year undergraduate degree aimed at providing students with a strong foundation in interior design, combining creative exploration with technical expertise. The program is designed to foster an understanding of spatial design, functionality, aesthetics, and human behaviour, enabling students to create harmonious and efficient interior environments.

The Interior Design specialization focuses on the creative and practical aspects of designing interior spaces for residential, commercial, and institutional settings. Students are trained in space planning, material selection, furniture design, lighting, and sustainability. This specialization emphasizes the integration of design principles with functionality, preparing graduates to meet the evolving demands of the interior design industry.

Throughout the program, students build a professional portfolio showcasing their design projects, from conceptual sketches to detailed technical drawings, models, and 3D visualizations. Graduates of the program are well-equipped to pursue careers in interior design studios,

architectural firms, real estate development, or as independent interior designers, contributing to creating innovative and sustainable interior environments.

This specialization nurtures students' creative vision while equipping them with the technical skills, industry knowledge, and project management capabilities required to succeed in today's fast-paced interior design industry.

## 6.1 Definitions

- **Programme Outcomes (POs)**
  Programme Outcomes are statements that describe what the students are expected to know and would be able to do upon the graduation. These relate to the skills, knowledge, and behaviour that students acquire through the programme.
- **Programme Specific Outcomes (PSOs)**
  Programme Specific Outcomes are statements about the various levels of knowledge specific to the given program which the student would be acquiring during the program.
- **Programme Educational Objectives (PEOs)**
  Programme Educational Objectives of a degree programme are the statements that describe the expected achievements of graduates in their career, and what the graduates are expected to perform and achieve during the first few years after graduation.
- **Credit**
  Credit refers to a unit of contact hours/ tutorial hour per week or 02 hours of Lab/ Practical work per week.
- **Studio Course**
  Studio courses are practical, hands-on classes where students engage in design projects, allowing them to apply theoretical knowledge in real-world scenarios. These courses emphasize creativity, collaboration, and iterative design processes, often culminating in tangible outcomes like models or design presentations.
- **Multi-Entry & Multi-Exit**
  The multi-entry, multi-exit system allows students to enter and exit their academic programs at various points, depending on their personal and professional circumstances. This flexibility enables students to earn qualifications such as certificates or diplomas at different stages of their education while providing options for re-entry to complete their degrees.

## 6.2 Programme Educational Objectives (PEO)

**PEO 1: Human Values and Well-being:** Graduates will design interior spaces that prioritize human well-being, comfort, and inclusivity, fostering environments that enhance quality of life and respect diverse cultural needs.

**PEO 2: Career Progression:** Graduates will build successful careers in interior design by staying updated with emerging trends, technologies, and sustainable practices, while continuously refining their creative and technical skills.

**PEO 3: Professional Expertise:** Graduates will demonstrate strong professional capabilities, working effectively across disciplines to design functional, aesthetic, and sustainable interior spaces that meet client and societal needs.

**PEO 4: Ethical and Sustainable Practices:** Graduates will uphold ethical and sustainable principles, ensuring that their designs contribute to environmental responsibility, social equity, and long-term sustainability in the built environment.

**PEO 5: Entrepreneurship and Innovation:** Graduates will develop entrepreneurial skills, establishing independent interior design practices or businesses that leverage innovative approaches and uphold ethical business standards.

## 6.3 Programme Outcomes (PO)

**PO1- Creative Design Solutions:** Demonstrate the ability to develop innovative, functional, and aesthetically pleasing interior design solutions that meet client needs and enhance the user experience.

**PO2 - Technical Competence:** Apply advanced technical skills in space planning, materials selection, and construction methods to create efficient and sustainable interior environments.

**PO3 - Ethical and Professional Responsibility:** Exhibit a strong commitment to ethical practices, social responsibility, and professional conduct, ensuring respect for cultural, environmental, and societal contexts.

**PO4 - Effective Communication:** Effectively communicate design ideas and solutions through visual, oral, and written means, engaging with clients, stakeholders, and multidisciplinary teams.

**PO5 - Sustainable Design Practices:** Integrate principles of sustainability into interior design projects, promoting environmental stewardship and reducing the ecological impact of built environments.

**PO6 - Leadership and Social Skills:** lead multidisciplinary teams effectively, communicate with diverse stakeholders, and exhibit strong social skills essential for collaborative and inclusive design practices and contributing to the community through socially responsible design initiatives.

## 6.4 Programme Specific Outcomes (PSO)

**On completion of the program the students will be**

**PSO1 – Understanding:** The interior design principles, theories, history, materials, processes and technologies, enabling them to grasp and articulate complex concepts and design contexts.

**PSO2 - Applying:** The knowledge of space planning, color theory, lighting, and furniture design to create functional, aesthetically pleasing, and user-centred interior environments that meet diverse client needs.

**PSO3 – Analysing:** Interior design challenges, deconstructing them to assess spatial dynamics, material performance, human factors, and sustainability considerations, ensuring effective and efficient design solutions in various context.

**PSO4 - Evaluating:** Interior design project, using established criteria and industry standards to ensure quality, safety, sustainability, and ethical consideration and taking appropriate design decision.

**PSO5 - Creating:** Original and innovative interior design through experimentation with new materials and technologies.

**PSO6 – Technical Proficiency:** Master interior design tools and software for accurate drafting, modeling, and visualization, effectively translating design concepts into detailed and functional spatial solutions.

## 6.5 Career Avenues

- **Interior Designer**: Work in architectural or design firms, creating functional and aesthetic interiors for various spaces.
- **Space Planner**: Specialize in optimizing spatial layouts for residential, commercial, and institutional projects.
- **Furniture and Product Designer**: Design custom furniture and interior products.
- **Lighting Consultant**: Provide expertise in lighting design, balancing functional and decorative needs for different environments.
- **Sustainable Design Consultant**: Advise on eco-friendly materials and energy-efficient solutions for sustainable interiors.
- **Retail and Exhibition Designer**: Create engaging retail and exhibition environments that enhance user experience and branding.
- **Project Manager (Interior Design)**: Manage interior design projects, overseeing timelines, budgets, and coordination of teams.
- **Entrepreneur Interior Designer**: Offer personalized design services independently.
- **Set Designer (Theatre, Film, TV)**: Design immersive and visually appealing sets for the entertainment industry.
- **Real Estate Staging Consultant**: Stage homes for sale by enhancing the interiors to appeal to potential buyers.
- **Academic and Research Roles**: Pursue further studies or research in interior design theories, sustainability, or emerging technologies.

## 6.6 Duration

8 semesters, 4 Years (Full-Time)

## 6.7 Criteria for Award of Degree

Credit Completion: Students must earn a total of 196 credits over a minimum period of 8 semesters

# 7. Student's Structured Learning Experience from Entry to Exit in the Programme

- **Education Philosophy and Purpose**:

- **Learn to Earn a Living:**

  At KRMU we believe in equipping students with the skills, knowledge, and qualifications necessary to succeed in the job market and achieve financial stability. All the programmes are tailored to meet industry demands, preparing students to enter specific careers and contributing to economic development and employability focused.

- **Learn to Live:**
  The University believes in learners' holistic development, fostering emotional and social intelligence, and a deeper understanding of the world. Our aim is to nurture well-rounded individuals who can contribute meaningfully to society, lead fulfilling lives, and engage with the complexities of the human experience.

- **University Education Objective: Focus on Employability and Entrepreneurship through Holistic Education using Bloom's Taxonomy**

By targeting all levels of Bloom's Taxonomy—remembering, understanding, applying, analyzing, evaluating, and creating—students are equipped with the knowledge, skills, and attitudes necessary for the workforce and entrepreneurial success. At KRMU we emphasize on learners critical thinking, problem-solving, and innovation, ensuring application of theoretical knowledge in practical settings. This approach nurtures adaptability, creativity, and ethical decision-making, enabling graduates to excel in diverse professional environments and to innovate in entrepreneurial endeavours, contributing to economic growth and societal well-being.

- **Importance of Structured Learning Experiences**

A structured learning experience (SLE) is crucial for effective education as it provides a clear and organized framework for acquiring knowledge and skills. By following a well-defined curriculum, learners can build on prior knowledge systematically, ensuring that foundational concepts are understood before moving on to more complex topics. This approach not only enhances comprehension but also fosters critical thinking by allowing learners to connect ideas and apply them in various contexts Moreover, a structured learning experience helps in setting clear goals and benchmarks, enabling both educators and students to track progress and make necessary adjustments. Ultimately, it creates a conducive environment for sustained intellectual growth, encouraging learners to achieve their full potential. At K.R. Mangalam University SLE is designed as rigorous activities that are integrated into the curriculum and provide students with opportunities for learning in two parts:

- **Inside Classroom:** Structured learning in the classroom focuses on building cognitive outcomes through a student-centric approach. The methods used in this approach include:

- **Cognitive Learning:** Students develop their critical thinking and problem-solving skills by engaging with fundamental concepts in design, materials, and construction. They are taught to analyze spaces, understand user needs, and design functional and aesthetic solutions.
- **Student-Centric Learning:** The focus is on active participation, where students are encouraged to ask questions, collaborate, and engage in peer discussions. This fosters independent learning and critical reflection on design processes.
- **Teaching Methods:** A mix of lectures, design critiques, and seminars ensures that students grasp both the theoretical and practical aspects of interior design. Visual aids, case studies, and multimedia presentations are used to enhance understanding.
- **Tools and Techniques:** Various design software are introduced to equip students with technical skills in creating detailed plans and 3D models. The hands-on experience with these tools helps them translate concepts into tangible design outcomes.
- **Approach:** Design thinking and research-based projects are emphasized. These allow students to identify problems, conduct research, brainstorm ideas, and prototype solutions, enhancing their creativity and technical skills.

➢ **Outside Classroom: The outside classroom experience enhances students'** people skills **and** psychomotor skills **by involving them in industry-related, community, and hands-on activities:**

- **People Skills:** Students work on real-world projects, collaborating with professionals, peers, and communities. This helps them improve communication, teamwork, and client interaction skills. Site visits, intern ships, and participation in design workshops offer practical exposure to industry standards and practices.
- **Psychomotor Skills:** Students engage in hands-on learning through field work, material exploration, and fabrication techniques. In workshops, they handle tools and materials, building furniture models and experimenting with construction methods, which improves their dexterity and understanding of material properties.
- **Industry Interactions:** Regular industry visits, internships, and collaborative projects with design firms allow students to bridge the gap between classroom learning and real-world practice. They get to apply classroom knowledge in a professional setting, gaining insights into market trends and industry requirements.
- **Community Engagement:** Participation in community-based design projects fosters a sense of social responsibility. Students might engage in projects that aim to improve public spaces or address the needs of underserved communities, allowing them to apply design principles in meaningful ways.

## ➢ Educational Planning and Execution WHAT, WHEN & HOW learning will happen

The educational planning and execution framework for Bachelor of Design (Hons. / Hons. with Research) Interior Design program at the School of Architecture & Design (SOAD) is designed to provide a structured and enriching learning experience. This framework aims to facilitate meaningful engagement, foster critical thinking, and encourage creativity among

students. By clearly outlining “WHAT, WHEN, and HOW” learning will take place, the school ensures that all educational activities align with the program's objectives and contribute to the holistic development of our aspiring interior designers.

The programme is designed around the educational philosophy OF "LEARN TO EARN LIVING" and "LEARN TO LIVE," providing a holistic learning experience from entry to exit.

**Entry Phase**
Upon entry, students are introduced to the foundational principles of Design. Orientation sessions emphasize understanding the interior design field and the ethical responsibilities of designers. This initial phase emphasizes the importance of knowledge not just as a means to earn a living, but as a way to engage meaningfully with society.

**Core Learning**
As students’ progress, they delve deeper into both the theoretical and practical aspects of interior design. Courses on design ethics, sustainable practices, and user experience equip students with essential skills for their future careers. Hands-on workshops and industry collaborations emphasize the concept of learning as preparation for professional success while fostering a sense of civic responsibility and personal growth. We have a strong students’ support system in terms of differential learning (slow & fast learning), mentor-mentee system and personal counselling thereby ensuring students move up on the learning curve.

**Skill Development**
The program emphasizes developing versatile skills essential for a successful career in interior design, including research, design thinking, drafting, and project management. Through collaborative design projects, visit to industry, industry connect and networking students learn teamwork and communication, vital not just for professional success but also for fostering meaningful relationships in their personal lives.

**Thesis and Exit Phase**
In the final phase, students undertake Thesis projects that integrate their learning and showcase their creativity and professionalism. This culminates in a portfolio that reflects their readiness to enter the workforce when they go for training in the final semester. Additionally, KRMU Career Development Cell (CDC) assist with job placements, reinforcing the "Learn to Earn" philosophy. The program maintains a strong focus on personal values and lifelong learning, encouraging students to approach their careers as opportunities to contribute positively to society.

**Co-Curricular and Extra-Curricular Activities**
Students actively participate in 13 clubs and societies within the university, ranging from media production to cultural expression. These clubs facilitate peer interaction, teamwork, and leadership opportunities, helping students develop a well-rounded personality. Regular industry visits, guest lectures, and workshops by industry experts ensure that students remain

connected to real-world design practices, bridging the gap between academic learning and professional expectations.

**Community Connect**
Community connects programs enhance students' social awareness and responsibility, allowing them to engage with various societal issues related to design and the built environment. As interior designers, students learn to consider the impact of their work on communities and to advocate for inclusive and sustainable practices. Participation in sports and cultural activities further contributes to a balanced lifestyle, promoting teamwork and resilience.

**Ethics and Values**
The programme places a strong emphasis on ethics, values, and a code of conduct in design practice. Students are encouraged to embody professionalism and integrity in their work, preparing them to be responsible designers and active citizens.

**Career Counselling and Entrepreneurship**
Career counselling services provide guidance on job placements, internships, and skill development, helping students navigate their career paths. Additionally, the university's incubation centre fosters entrepreneurial and leadership qualities, encouraging students to explore innovative ideas and start their ventures.

## ➢ Components of Educational Planning

All planned activities will be executed as scheduled, ensuring a consistent and enriching learning environment that supports the development of practical and theoretical skills in interior design. The school will follow the following for conducting the semester educational, co-curricular and extracurricular activities.

1. **University Calendar:**
   The University Calendar outlines key academic dates, including the start and end of terms, examination periods, and holidays that impact Bachelor of Design (Hons. / Hons. with Research) Interior Design program.
2. **Timetable:**
   The Timetable presents a structured overview of class sessions, lecture timings, studio hours, and project work, offering clarity on the weekly schedule for students.
3. **School Calendar:**
   The School Calendar provides a detailed schedule of important events, workshops, design critiques, and submission deadlines specific to SOAD.
4. **Activity Calendar:**
   The Activity Calendar highlights extracurricular events, guest lectures by industry professionals, and site visits that complement the academic curriculum, enriching students' understanding of interior design practice.
5. **Class Sessions/Lectures:**
   Scheduled activities include theoretical lectures, practical studio sessions for hands-on learning, and collaborative projects that foster teamwork and innovation.

6. **Monitoring:**
   Continuous monitoring will be implemented at various levels to ensure that educational objectives specific to the B. Des in Interior Design are met and that planned activities are effectively carried out.
7. **Correction of Deviations:**
   Any deviations from the planned educational framework will be promptly identified and addressed to maintain the integrity and effectiveness of the learning experience.
   This comprehensive approach ensures that students in the Bachelor of Design (Hons. / Hons. with Research) Interior Design program engage in a holistic educational experience, integrating both academic knowledge and practical skills while fostering personal and professional growth within the field of interior design.

## ➢ Course Registration and Scheduling

## ➢ Major and Minor Selection Process:

In the Bachelor of Design (B. Des) Interior Design program, students have the opportunity to choose from a variety of major and minor courses throughout their studies. There are 35 major courses and 8 minor courses available over the entire duration of the program. The selection process for minor is centralized, allowing students to make informed choices about their specialization. Every student has to register at the beginning of each semester for the courses offered in the given semester. Major courses are registered centrally for the students. However, for other multidisciplinary courses (Minor, VAC, OE) the students have to register by themselves through ERP.

School of Architecture and Design offers the following minors with 32 credits spread through the eight semesters

1. Interior Styling
2. Contemporary Art Practice
3. UI/UX Design
4. Game Development

***Refer to Annexure No.1***

## ➢ Value-Added Courses (VAC) and Open Electives (OE):

Value-Added Courses (VAC) and Open Electives (OE) are offered to enhance students' skills and knowledge beyond the core curriculum. Students can select these courses based on their interests, enabling them to gain practical insights and experience in specific areas related to interior design. The choice of VAC and OE typically occurs at the beginning of each semester, where students can consult with faculty and peers to make informed decisions.

## ➢ Internships, Projects, Dissertations, and Training

### ➢ Internships

Students are required to complete a summer internship after the fourth semester. The internship carries 2 credits and is evaluated in the following odd semester. This hands-on experience is designed to provide students with practical exposure to the industry, allowing them to apply theoretical knowledge in real-world settings.

### ➢ Thesis and Research Project

In the seventh semester, all the students undertake a Thesis in Interior Design project, where they work on real-life, live sites. This hands-on approach enables them to

conduct in-depth research, critically analyze design challenges, and propose innovative solutions, bridging academic learning with real-world practice.

Students pursuing Bachelor of Design (Hons. with Research) in Interior Design engage in research projects that allow them to focus on specific areas within the field, aligning with their career goals. These projects are mapped to practical courses and experiential learning activities, ensuring students gain comprehensive insights into their chosen specializations.

- **Training**

  In the eighth semester, students undertake Industry training, where they collaborate with industry professionals on real-life projects. Those pursuing a research-oriented path will complete a Research Project (Dissertation) instead. This structured approach to projects and dissertations enables students to develop critical thinking, research, and project management skills.

## Co-Curricular Activities Credit Choices

**Participation in Co/ Extracurricular activities is part of outside classroom learning.**

Students must earn 2 credits from co/ extracurricular activities. One credit from participation in co-curricular activities like Club/Society activities and another credit from Community Service (1 credit each) through participation in NSS/ Redcross activities or NGOs that contribute to their personal development, leadership skills, and community engagement.

- Under the category of **Club/Society**, 1 credit can be earned by registration in one of the Club/Societies of university and active participation in the events organized by the club/society **OR**
- 15 hours of active engagement in any of the recreational/sports activities

Under the category of **Community Service,** 1 credit can be earned by

- 15 hours active engagement in community service through NGO/NSS/Redcross or any other society approved/ empanelled by the university

At the end of the semester, students are required to submit a log of hours, a report, and a certificate of participation/ completion summarizing their activities followed by a presentation.

- **Academic Support (Differential learning needs):** Academic Support Systems for B. Des Interior Design students are designed to address diverse learning needs, ensuring each student excels. These systems include:

  - **Personalized Tutoring:** One-on-one sessions with experienced tutors focus on areas such as design software, space planning, furniture design, lighting systems, material selection, and project management, customized to individual skill levels.
  - **Workshops and Seminars:** Regular workshops on topics like sustainable design, digital modeling, construction techniques, and interior design ethics, along with industrial connections, enhance both practical and theoretical knowledge.

- **Peer Mentoring Programs:** Advanced learners' mentor fellow students by leading project teams and offering guidance on assignments and design critiques, fostering a collaborative and supportive environment.
- **Accessible Learning Resources:** Online platforms provide access to tutorials, design templates, articles, and interactive tools, accommodating various learning styles.
- **Production and Outcome-Based Activities:** Students are encouraged to engage in practical, hands-on activities like design builds, mock-ups, and real-world projects. These works are showcased and recognized, boosting confidence and learning outcomes.
- **Diversity and Inclusion Initiatives:** Programs promoting inclusivity ensure that all design ideas are valued, enriching the learning environment.
- **Feedback and Assessment:** Continuous feedback systems allow students to receive constructive reviews of their work, facilitating growth, innovation, and skill development.

## ➢ Student Career & Personal Support:

- **Mentor-Mentee:** The Mentor-Mentee Program is an essential component for fostering successful careers as it acts as a bridge between faculty and students. Mentor-mentee relationships often go beyond academic and professional growth at KRMU.
- **Counselling and Wellness Services:** Counselling and Wellness Services for SOAD students are designed to support their mental health and overall well-being in a demanding academic environment. These services include confidential individual counselling sessions, where trained professionals provide guidance on stress management, time management and personal challenges. Group therapy sessions and workshops focus on topics such as resilience, coping strategies and mindfulness, promoting a sense of community and shared experiences. The school conducts sessions on mental health awareness from time to time. Wellness initiatives may include fitness programs, relaxation activities and access to health resources that promote physical and mental health. By creating a supportive environment, these services help students navigate the pressures of their studies while fostering a balanced and healthy lifestyle.
- **Career Services and Training:** The Career Development Center (CDC) at KRMU provides comprehensive career services and training for SOAD students, focusing on creating ample placement opportunities. In addition to inviting corporate recruiters to campus, the Centre hosts various counselling and training programs aimed at enhancing students' academic and professional skills. These programs equip students with the essential tools needed to secure lucrative careers in their field. Each year, prominent companies visit the KRMU campus, offering attractive job packages to emerging talent. The faculty members and the mentors also ensure that students are well-prepared for the competitive job market.

## ➢ Learning and Development Opportunities

- **Practical Learning (Course Handouts, Session Plans):** Practical learning is supported by detailed handouts, providing structured guidance for students in areas like building material, space planning, furniture design, interior services and construction techniques, etc. Sessions are conducted in specialized environments such as Computer labs, studios, Material Museums, and Construction Yard to enhance practical skills.
- **Experiential Learning (Learning by Doing):**
  - Inside Classroom: Design workshops, lighting system setups, and spatial planning exercises provide students with hands-on experience. Students apply theories through practical activities like model-making and digital design tool sessions.
  - Outside Classroom: Activities such as site visits, industrial visits, material procurement processes, and client interaction give students exposure to real-world challenges, with a focus on developing industry-relevant practical skills.
- **Case-Based Learning/Problem-Based Learning/Project-Based Learning:** Projects and case studies are carefully aligned with learning outcomes. Students are assigned tasks like redesigning existing interiors or working on sustainable design solutions, with detailed learning guidelines provided to map out the entire process from concept to execution.
- **Workshops, Seminars, and Guest Lectures:** Regular workshops on topics like sustainable materials, advanced lighting, and digital modeling, supplemented by guest lectures from industry professionals. A tentative schedule will ensure these activities occur throughout each semester, giving students opportunities for direct interaction with experts and hands-on learning experiences.

## ➢ Assessment and Evaluation

- **Grading Policies and Procedures for theory courses, practical courses, projects, Internships, Dissertation:** As per university examination policy of K R Mangalam University, the Program Outcome assessments is done by aggregating both direct and indirect assessments, typically assigning 80% weightage to direct assessments and 20% to indirect assessments, to compute the final course attainment.

**Evaluation Scheme:**

**Studio Courses**

| **Evaluation Components** | **Weightage (%)** |
|---|---|
| **Internal marks (Internal)**<br>A. Continuous Assessment<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/Presentations/ Participation/ Case Studies/Internal Jury (minimum of five components to be evaluated)<br>B. Viva Voce (Internal) | <br><br><br><br>**50**<br>20<br>30 |
| **External Marks (External)**<br>A. End Term practical Exam<br>B. Viva Voce (External) | **50**<br>20<br>30 |

| | |
|---|---|
| **Total** | **100** |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Practical Exam and Viva Voce separately to secure minimum passing grade)

**Theory Courses**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks (Theory): -<br>**I) Continuous Assessment (30 Marks)**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/ Assignments and Essays/ Presentations/ Participation/ Case Studies/ Reflective Journals (minimum of five components to be evaluated) | 30 Marks |
| **II) Internal Marks (Theory)-Mid-Term Exam** | 20 Marks |
| **External Marks (Theory): -**<br>End Term Examination | 50 Marks |

m

pulsory for a student to secure 40% marks in Internal and End Term Practical Exam and Viva Voce separately to secure minimum passing grade)

**Summer Internship grading at the completion of Vth semester**

Students are required to complete a minimum four-week summer internship with a reputable architecture or interior design firm. During the internship, students must maintain a logbook documenting their daily activities and submit a detailed internship report for evaluation. Additionally, students must provide an appointment letter and a completion certificate from the firm to receive credit for the internship.

**Clubs and community- grading at the completion of IVth and Vth semester**

Students must demonstrate active involvement in the University clubs, societies, and community engagement activities, including participation with the National Service Scheme (NSS) or an approved Non-Governmental Organization (NGO), to qualify for the award of credits. To secure the credits, students are required to submit certificate or letter of appreciation as formal proof of their participation along with a detailed report of the activity.

**MOOC grading at the completion of VIII $^{th}$ semester**

In Semester V, students will be informed about the requirement to complete MOOC courses. The information will be disseminated via notice boards, emails, and during classroom briefings by faculty members.

- **Feedback and Continuous Improvement Mechanisms:** Teaching-learning is driven by outcomes. Assessment strategies and andragogy are aligned to course outcomes. Every CO is assessed using multiple components. The attainment of COs is calculated for every course to know the gaps between the desired and actual outcomes. These gaps are analysed to understand where does the student lags in terms of learning levels. Thereafter each student's

learning levels are ascertained, if found below desirable level, and intervention strategy is effected in the following semester to make necessary corrections. To cater to the diverse learning needs of its student body, K.R. Mangalam University employs a comprehensive assessment framework to identify both slow and advanced learners. Students' learning levels are continually assessed based on their performance at various stages. If a student's performance in internal assessments falls below or equal to 55%, they are categorized as slow learners. Conversely, if a student's performance score in internal assessments is greater than or equal to 80%, they are identified as advanced learners. Such students are encouraged to participate in advanced learning activities. Through periodic evaluations and the utilization of modern management systems, the institution adeptly tracks students' performance across various courses, allowing for targeted interventions and support mechanisms.

- **Academic Integrity and Ethics:** The School of Architecture and Design places a strong emphasis on academic integrity and ethics, fostering a culture of honesty and responsibility among students. Clear guidelines are established to educate students about the importance of plagiarism prevention, proper citation practices, and ethical sourcing in their work. Regular workshops and seminars are conducted to discuss case studies and real-world scenarios, encouraging critical thinking about ethical dilemmas in Interior and Construction field. Faculty members serve as role models, promoting transparency and accountability in their interactions and evaluations. By instilling these values, the school prepares students to uphold high ethical standards in their professional careers, emphasizing the critical role that integrity plays in design.

# 8. Programme Structure

| Semester-I | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **S. No.** | **Category of Course** | **Course Code** | **Course** | **L** | **T** | **P/ S** | **C** | **Multiple Entry and Exit** |
| **1** | **Major-I** | ADID151 | INTERIOR DESIGN STUDIO-I | **2** | **0** | **4** | **6** | |
| **2** | **Major-II** | ADID153 | CONSTRUCTION & MATERIALS-I | **1** | **0** | **1** | **2** | |
| **3** | **Major-III** | ADID155 | DRAWING & DRAFTING-I | **0** | **0** | **3** | **3** | |
| **4** | **Major-IV** | ADID112 | HISTORY OF INTERIOR DESIGN | **2** | **0** | **0** | **2** | |
| **5** | **Minor -I** | - | MINOR -I | **0** | **0** | **0** | **4** | |
| **6** | **Skill Enhancement Course SEC-I** | SEC069 | COMPUTER GRAPHICS-I | **0** | **0** | **3** | **3** | |
| **7** | **Value Added Course** | VAC | VAC-I | **0** | **0** | **0** | **2** | **Award:** **UG Certificate** [after completing 1 year of study (2 semesters with credits as prescribed), and an additional vocational course/internship of 4 credits to be covered within 6-8 weeks during the summer vacation of the first year]. |
| **Total** | | | | | | | **22** | |
| **Semester-II** | | | | | | | | |
| **S. No.** | **Category of Course** | **Course Code** | **Course** | **L** | **T** | **P/ S** | **C** | |
| **1** | **Major-V** | ADID152 | INTERIOR DESIGN STUDIO-II | **2** | **0** | **4** | **6** | |
| **2** | **Major-VI** | ADID154 | CONSTRUCTION & MATERIALS-II | **0** | **0** | **3** | **3** | |
| **3** | **Major-VII** | ADID156 | DRAWING & DRAFTING-II | **0** | **0** | **3** | **3** | |
| **4** | **Minor-II** | | MINOR-II | | | | **4** | |
| **5** | **Skill Enhancement Course II** | SEC082 | COMPUTER GRAPHICS-II | **0** | **0** | **3** | **3** | |
| **6** | **Skill Enhancement Course III** | SEC084 | INTERIOR DESIGN WORKSHOP | **0** | **0** | **3** | **3** | |
| **7** | **Open Elective** | OEC | OPEN ELECTIVE I | | | | **3** | |
| **8** | **Value Added Course** | VAC | VAC-II | | | | **2** | |
| **Total** | | | | | | | **27** | |
| **Semester-III** | | | | | | | | |
| **S. No.** | **Category of Course** | **Course Code** | **Course Title** | **L** | **T** | **P/ S** | **C** | **Multiple Entry and Exit** |
| **1** | **Major-VIII** | ADID251 | INTERIOR DESIGN | **2** | **0** | **6** | **8** | **Award: UG Diploma** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | STUDIO-III | | | | | [after completing 2 years of study (4 semesters with credits as prescribed), and an additional vocational course/internship of 4 credits to be covered within 6-8 weeks during the summer vacation of the second year] |
| **2** | **Major-IX** | ADID253 | CONSTRUCTION & MATERIALS III | **0** | **0** | **3** | **3** | |
| **3** | **Major-X** | ADID213 | INTERIOR SERVICES-I DRAINAGE & PLUMBING | **2** | **0** | **0** | **2** | |
| **4** | **Minor-III** | | MINOR-III | | | | **4** | |
| **5** | **Skill Enhancement Course SEC-II** | SEC083 | COMPUTER GRAPHICS-II | **0** | **0** | **3** | **3** | |
| **6** | **Ability Enhancement Course** | AEC001 | NEW AGE LIFE SKILLS-I | **3** | **0** | **0** | **3** | |
| **7** | **Open Elective** | OEC | OPEN ELECTIVE II | | | | **3** | |
| **8** | **Value Added Course** | VAC | VAC-III | | | | **2** | |
| **Total** | | | | | | | **28** | |
| **Semester-IV** | | | | | | | | |
| **S. No.** | **Category of Course** | **Course Code** | **Course** | **L** | **T** | **P/ S** | **C** | |
| **1** | **Major-XI** | ADID252 | INTERIOR DESIGN STUDIO-IV | **2** | | **6** | **8** | **Entry:** The student who took exit after completion of the first year (UG Certificate) is allowed to enter the diploma programme within five years from the first entry in the programme, four years in case of degree program and three years in case of Hons. degree so as to complete the programme within the stipulated time period of seven years. |
| **2** | **Major-XII** | ADID254 | CONSTRUCTION & MATERIALS-IV | **0** | **0** | **3** | **3** | |
| **3** | **Major-XIII** | ADID214 | INTERIOR SERVICES-II ELECTRICAL& LIGHTING | **2** | **0** | **0** | **2** | |
| **4** | **Minor-IV** | | MINOR-IV | | | | **4** | |
| **5** | **Ability Enhancement Course** | AEC002 | NEW AGE LIFE SKILLS-II | | | | **3** | |
| **6** | **Open Elective** | OEC | OPEN ELECTIVE III | | | | **3** | |
| **7** | **Clubs/ Society** | CS001 | | | | | **1** | |
| **Total** | | | | | | | **24** | |
| **Summer Internship** | | | | | | | | |

**Student will go on summer internship; evaluation will be done in Vth semester*

***In Semester V, students will be informed about the requirement to complete a MOOC course. The information will be disseminated via notice boards, emails, and during classroom briefings by faculty member*

*Students must demonstrate active involvement in the University clubs, societies, and community engagement activities, including participation with the National Service Scheme (NSS) or an approved Non-Governmental Organization (NGO), to qualify for the award of credits. To secure the credits, students are required to submit certificate or letter of appreciation as formal proof of their participation along with a detailed report of the activity*

| **Semester-V** | |
|---|---|

| S. No. | Category of Course | Course Code | Course Title | L | T | S | C | Multiple Entry and Exit |
|---|---|---|---|---|---|---|---|---|
| 1 | **Major-XIV** | ADID351 | INTERIOR DESIGN STUDIO-V | **2** | **0** | **6** | **8** | **Award:** **Bachelor's Degree** [after completing 3-year of study (6 semesters with credits as prescribed)]<br><br>**Entry** The student who took exit after completion of two years of study (UG Diploma) are allowed to re-enter the degree programme within three years and complete the degree programme within the stipulated maximum period of seven years. |
| 2 | **Major-XV** | ADID353 | CONSTRUCTION & MATERIALS-V | **0** | **0** | **3** | **3** | |
| 3 | **Major-XVI** | ADID355 | FURNITURE DESIGN STUDIO-I | **0** | **0** | **4** | **2** | |
| 4 | **Major-XVII** | ADID357 | VISUAL DISPLAY-I | **0** | **0** | **4** | **2** | |
| 5 | **Major-XVIII** | ADID311 | INTERIOR SERVICES-III ACOUSTIC & FIREFIGHTING | **2** | **0** | **0** | **2** | |
| 6 | **Minor-V** | | MINOR-V | | | | **4** | |
| 7 | **Ability Enhancement Course** | AEC003 | NEW AGE LIFE SKILLS-III | | | | **3** | |
| 8 | **SUMMER INTERNSHIP** | SIID001 | Evaluation of Summer Internship | | | | **2** | |
| 9 | **Community Service** | CS002 | | | | | **1** | |
| **Total** | | | | | | | **27** | |

*Students must demonstrate active involvement in the University clubs, societies, and community engagement activities, including participation with the National Service Scheme (NSS) or an approved Non-Governmental Organization (NGO), to qualify for the award of credits. To secure the credits, students are required to submit certificate or letter of appreciation as formal proof of their participation along with a detailed report of the activity*

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**Semester-VI**

| S. No. | Category of Course | Course Code | Course | L | T | P/ S | C |
|---|---|---|---|---|---|---|---|
| 1 | **Major-XIX** | ADID352 | INTERIOR DESIGN STUDIO-VI | **2** | **0** | **6** | **8** |
| 2 | **Major-XX** | ADID356 | FURNITURE DESIGN STUDIO-II | **0** | **0** | **4** | **2** |
| 3 | **Major-XXI** | ADID358 | VISUAL DISPLAY-II | **0** | **0** | **4** | **2** |
| 4 | **Major-XXII** | ADID312 | INTERIOR SERVICES-IV HVAC & MECHANICAL SERVICES | **2** | **0** | **0** | **2** |
| 5 | **Major-XXIII** | ADID314 | INTERIOR PROJECT ESTIMATION | **2** | **0** | **0** | **2** |
| 6 | **Major-XX IV** | ADID316 | VASTU SHASTRA | **2** | **0** | **0** | **2** |
| 7 | **Minor-VI** | | MINOR-VI | | | | **4** |
| **Total** | | | | | | | **22** |

| **Bachelor's Degree (Honours with research) Semester-VII** | |
|---|---|

| S. No. | Category of Course | Course Code | Course | L | T | P/ S | C | Multiple Entry |
|---|---|---|---|---|---|---|---|---|
| **1** | **Thesis** | ADID451 | INTERIOR DESIGN THESIS | **2** | **0** | **10** | **12** | ***Award: 4-year Bachelor's Degree (Honours with Research)*** *Students who secure 75% marks and above in the first six semesters and wish to undertake research at the undergraduate level can choose a research stream in the fourth year. Upon completing a research project in their major area(s) of study in the 4th year, a student will be awarded Bachelor's Degree (Honours with Research). **Entry** The student who took exit after completion of three years of study (UG degree) is allowed to re-enter the degree programme maximum within three years and complete the degree programme within the stipulated maximum period of seven years. |
| **2** | **Major-XXV** | ADID453 | PROFESSIONAL PRACTICE AND PROJECT MANAGEMENT | **2** | **0** | **0** | **2** | |
| **3** | **Major-XXVI** | ADID455 | LANDSCAPE IN INTERIOR DESIGN | **2** | **0** | **0** | **2** | |
| **4** | **Minor-VII** | | MINOR-VII | | | | **4** | |
| **5** | **Research Project** | ADID354 | RESEARCH PROJECT | | | **4** | **4** | |
| **Total** | | | | | | | **24** | |
| **Bachelor's Degree (Honours with research) Semester-VIII** | | | | | | | | |
| **1** | **Major-XXVII** | ADID452 | INTERIOR DESIGN INTERNSHIP | **0** | **0** | **0** | **14** | |
| **2** | **Minor-VIII** | | Project | **0** | **0** | **0** | **4** | |
| **3** | **Major-XXVIII** | | **MOOC 1** | **0** | **0** | **0** | **2** | |
| **4** | **Major-XXIX** | | **MOOC 2** | **0** | **0** | **0** | **2** | |
| **Total** | | | | | | | **22** | |

| *Bachelor's Degree (Honours) Semester-VII | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **S. No.** | **Category of Course** | **Course Code** | **Course** | **L** | **T** | **P** | **C** | **Award: 4-year Bachelor's Degree (Honours)** [with credits as prescribed after eight semesters programme of study] **Entry** The student who took exit after completion of three years |
| **1** | **Thesis** | ADID451 | INTERIOR DESIGN THESIS | **2** | **0** | **10** | **12** | |
| **2** | **Major-XXX** | ADID453 | PROFESSIONAL PRACTICE AND PROJECT MANAGEMENT | **2** | **0** | **0** | **2** | |
| **3** | **Major-XXXI** | ADID455 | LANDSCAPE IN INTERIOR DESIGN | **2** | **0** | **0** | **2** | |
| **4** | **Minor-VII** | | MINOR-VII | | | | **4** | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **5** | **Major-XXXII** | ADID459 | INTERIOR WORKING DRAWING | | | **4** | **4** | of study (UG degree) is allowed to re-enter the degree programme maximum within three years and complete the degree programme within the stipulated maximum period of seven years. |
| **Total** | | | | | | | **24** | |
| | | | | | | | | |
| ***Bachelor's Degree (Honours) Semester-VIII** | | | | | | | | |
| **1** | **Major-XXXIII** | ADID452 | INTERIOR DESIGN INTERNSHIP | **0** | **0** | **0** | **14** | |
| **2** | **Minor-VIII** | | INTERIOR PROJECT | **0** | **0** | **0** | **4** | |
| **3** | **Major-XXXIV** | | **MOOC 1** | **0** | **0** | **0** | **2** | |
| **4** | **Major-XXXV** | | **MOOC 2** | **0** | **0** | **0** | **2** | |
| **Total** | | | | | | | **22** | |

**Total Credits: 196**

## 8.1 Minor Streams

| *Details of Minors offered by SOAD<br>Students will have to choose minor at the beginning of the first semester | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Interior Styling (Only for SOAD students, except B. Des. Interior Design, Mandatory for BFA 2023-24 batch)** | | | | | | | | | |
| **S. No.** | **Category of Course** | **Course Code** | **Course Title** | **L** | **T** | **S** | **P** | **C** | **H** |
| **1** | Minor 1 | UIS101 | Introduction to Design Principles | **0** | **0** | **4** | **0** | **4** | **4** |
| **2** | Minor 2 | UIS102 | Interior Design Fundamentals | **0** | **0** | **4** | **0** | **4** | **4** |
| **3** | Minor 3 | UIS103 | Product Design Basics | **0** | **0** | **4** | **0** | **4** | **4** |
| **4** | Minor 4 | UIS104 | Advanced Product Design | **0** | **0** | **4** | **0** | **4** | **4** |
| **5** | Minor 5 | UIS105 | Interior Styling | **0** | **0** | **4** | **0** | **4** | **4** |
| **6** | Minor 6 | UIS106 | Advanced Interior Styling | **0** | **0** | **4** | **0** | **4** | **4** |
| **7** | Minor 7 | UIS107 | Advanced Interior Design | **0** | **0** | **4** | **0** | **4** | **4** |
| **8** | Minor 8 | UIS108 | Interior Styling Project | **0** | **0** | **4** | **0** | **4** | **4** |
| | | | | | | Total | **32** | **32** | **32** |
| **Contemporary Art Practice Only for SOAD students, except BFA students** | | | | | | | | | |
| **S. No.** | **Category of Course** | **Course Code** | **Course Title** | **L** | **T** | **S** | **P** | **C** | **H** |
| **1** | Minor 1 | UCA101 | Introduction to Contemporary Art | **0** | **0** | **4** | **0** | **4** | **4** |
| **2** | Minor 2 | UCA102 | Modernism and Its Influence | **0** | **0** | **4** | **0** | **4** | **4** |
| **3** | Minor 3 | UCA103 | Photography and Conceptual Art | **0** | **0** | **4** | **0** | **4** | **4** |
| **4** | Minor 4 | UCA104 | Performance Art | **0** | **0** | **4** | **0** | **4** | **4** |
| **5** | Minor 5 | UCA105 | Globalization and Art | **0** | **0** | **4** | **0** | **4** | **4** |
| **6** | Minor 6 | UCA106 | Identity and Representation | **0** | **0** | **4** | **0** | **4** | **4** |
| **7** | Minor 7 | UCA107 | Conceptual Installation | **0** | **0** | **4** | **0** | **4** | **4** |
| **8** | Minor 8 | UCA108 | Contemporary Art Project | **0** | **0** | **4** | **0** | **4** | **4** |
| | | | | | | Total | **32** | **32** | **32** |
| **UI/UX Design Only for SOAD students, except B.Des UI & UX students** | | | | | | | | | |
| **S. No.** | **Category of Course** | **Course Code** | **Course Title** | **L** | **T** | **S** | **P** | **C** | **H** |
| **1** | Minor 1 | UUI101 | Introduction To UX Design | **0** | **0** | **4** | **0** | **4** | **4** |
| **2** | Minor 2 | UUI102 | Introduction to UI Development | **0** | **0** | **4** | **0** | **4** | **4** |
| **3** | Minor 3 | UUI103 | Basics of UI Design | **0** | **0** | **4** | **0** | **4** | **4** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **4** | Minor 4 | UUI104 | Introduction To 6D | **0** | **0** | **4** | **0** | **4** | **4** |
| **5** | Minor 5 | UUI105 | Wireframing And Prototyping | **0** | **0** | **4** | **0** | **4** | **4** |
| **6** | Minor 6 | UUI106 | Methodologies in Interaction Design | **0** | **0** | **4** | **0** | **4** | **4** |
| **7** | Minor 7 | UUI107 | Gamification And UX | **0** | **0** | **4** | **0** | **4** | **4** |
| **8** | Minor 8 | UUI108 | UI/ UX Design Project | **0** | **0** | **4** | **0** | **4** | **4** |
| | | | | | | Total | **32** | **32** | **32** |

**Game Development Only for SOAD students, except B.Des. Game Design and Animations students**

| S. No. | Category of Course | Course Code | Course Title | L | T | S | P | C | H |
|---|---|---|---|---|---|---|---|---|---|
| **1** | Minor 1 | UGD101 | Fundamentals of Game Engine | **0** | **0** | **4** | **0** | **4** | **4** |
| **2** | Minor 2 | UGD102 | Game Designing Technology | **0** | **0** | **4** | **0** | **4** | **4** |
| **3** | Minor 3 | UGD103 | Computer Programming for Video Game | **0** | **0** | **4** | **0** | **4** | **4** |
| **4** | Minor 4 | UGD104 | Video Editing and Visual Effects | **0** | **0** | **4** | **0** | **4** | **4** |
| **5** | Minor 5 | UGD105 | Introduction to Immersive Technologies | **0** | **0** | **4** | **0** | **4** | **4** |
| **6** | Minor 6 | UGD106 | 3D Game Development | **0** | **0** | **4** | **0** | **4** | **4** |
| **7** | Minor 7 | UGD107 | Game Publication and Marketing | **0** | **0** | **4** | **0** | **4** | **4** |
| **8** | Minor 8 | UGD108 | Game Development Project | **0** | **0** | **4** | **0** | **4** | **4** |
| | | | | | | Total | **32** | **32** | **32** |

# Syllabi

# Semester I

| ADID151 | INTERIOR DESIGN STUDIO-I | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 4 | 0 | 6 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 90 | | | | | |
| Pre-Requisites/ Co-Requisites | Basic Drawing Skills, Logical thinking | | | | | |

**Course Perspective:**

This course is crucial for students as it fosters creativity, critical thinking, and problem-solving skills, helping them to develop a strong foundation in design principles. Through hands-on projects and explorative tasks, students enhance their observational abilities, spatial understanding, and ability to communicate design ideas effectively.

**Course Outcomes:**

**On completion of the course the learner will be:**

**CO1:** Understanding and explaining design concepts by defining and describing design's fundamental elements, principles, and significance in everyday life and nature.
**CO2:** Applying design principles and techniques by using design elements to create effective 2D and 3D compositions and incorporating anthropometric data in functional space design.
**CO3:** Analysing and interpreting design solutions by evaluating existing designs based on their adherence to design principles and anthropometric standards.
**CO4:** Evaluating design effectiveness by critiquing and assessing design compositions and spatial layouts for their ability to meet user needs, ergonomics, and aesthetic goals.
**CO5:** Creating and developing innovative design solutions by formulating original and detailed designs for single-person spaces, incorporating design principles, anthropometrics, and user requirements.

**Course Content:**

**Unit 1: Introduction to Basic Design** **No. of Hours: 12**

- **A-** Introduction to Design: Meaning and importance of design in everyday life.
- **B-** Design in Nature: Appreciation of design principles as observed in natural forms.
- **C**- Sketching Exercises**:** Sketching objects found in nature and surroundings to develop observational skills.

**Unit 2: Elements and Principles of Design** **No. of Hours: 12**

- **A-** Elements of Design: Definitions and explanations of fundamental elements such as line, shape, form, colour, texture, and space.
- **B-** Principles of Design: Introduction to design principles including balance, contrast, emphasis, harmony, rhythm, and proportion.
- C- 2D and 3D Composition: Exercises translating abstract forms into 2D and 3D compositions using design elements and principles.

**Unit 3: Anthropometrics** **No. of Hours: 18**

**A-** Human Anthropometrics: Study of human body measurements and their relevance to space design.

- **B-** Spatial Design: Application of anthropometric data in designing functional spaces for various activities.
- **C-** Anthropometric Standards: Exercises involving the use of anthropometric standards in space design, placement of furniture, kitchen, and toilet fixtures.

**Unit 4: Single unit Design** **No. of Hours: 48**

- **A-** Design of Single-Person Space: Design of a single-person space such as a Coffee Kiosk or Watchman's Cabin based on anthropometric data.
- **B-** Scale and Proportion: Application of scale, proportion, and ergonomics in relation to human activities and space requirements.
- **C-** Design Presentation: Development of sketched views and 3D models for the proposed design solution.

**Learning Experience:**

This course will be delivered in an experiential and participatory manner, incorporating a mix of lectures, hands-on projects, and collaborative group activities to ensure students gain both theoretical knowledge and practical skills. The teaching methods are designed to make learning interactive, engaging, and relevant to real-world applications. The learning experience comprises both inside and outside classroom experiences.

**Inside Classroom:**

Lectures and Tutorials: Core concepts related to design principles, elements, and anthropometrics will be introduced through engaging lectures, supported by tutorials for in-depth discussions.

Hands-on Learning and Projects: Assignments will require students to create 2D and 3D compositions, apply anthropometric data, and develop design solutions for various spaces. This will involve technical drawing skills and the application of design principles.

Group Work: Collaboration will be encouraged through group activities, where students will work together to solve design challenges, reinforcing teamwork and communication skills.

**Outside Classroom:**

Case Studies: Students will observe and analyze real-life design projects, focusing on how design principles and anthropometrics are integrated into diverse spaces. This approach will provide a bridge between theory and practice, preparing them for industry challenges.

**Textbook:**

1. Ching, Francis D. K., "Architecture: Form, Space, and Order", Wiley and Sons

**Reference Books**

1. Wallschlaeger, C and Snyder, S.B., "Basic Visual Concepts and Principles for Artists, Architects and Designers", McGraw Hill.
2. Laseau, P, "Graphic Thinking For Architects and Designers", John Wiley and Sons

**Open Educational Resources (OER)**

https://nptel.ac.in/

https://swayam.gov.in/

**Evaluation Scheme:**

| Evaluation Components | Weightage (%) |
|---|---|
| **Internal marks (Internal)**<br>C. Continuous Assessment<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/Presentations/ Participation/ Case Studies/Internal Jury (minimum of five components to be evaluated)<br>D. Viva Voce (Internal) | **50**<br>20<br>30 |
| **External Marks (External)**<br>C. End Term practical Exam<br>D. Viva Voce (External) | **50**<br>20<br>30 |
| **Total** | **100** |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Practical Exam and Viva Voce separately to secure minimum passing grade)

| ADID153 | CONSTRUCTION AND MATERIALS -I | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 1 | 0 | 1 | 0 | 2 |
| Category of Course | Major Theory) | | | | | |
| Total Contact Hours | 30 | | | | | |
| Pre-Requisites/ Co-Requisites | Basic Knowledge of Materials | | | | | |

**Course Perspective**

This course emphasizes the properties, classification, and application of key building materials, including bricks, stones, cement, and timber. By learning various masonry techniques and understanding the treatment and maintenance of timber, students will be able to assess the suitability of these materials for different design projects.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding fundamental building materials and components, including foundations, walls, roofs, doors, windows, and symbols used in section drawings.

**CO2:** Analyzing properties and uses of construction materials like bricks, stones, cement, and aggregates.

**CO3:** Evaluating brick and stone masonry techniques, including brick types, bonds, and masonry execution.

**CO4:** Creating construction drawings using engineered wood products and materials for interior design projects.

**Course Content**

**UNIT-1 Introduction to Building Components: No. of Hours: 4**

- Introduction to components of a building (Foundation, plinth, wall, sill, lintel, roof, doors, windows, ventilators, staircases, sunshades, etc.) through section along with the symbol of building material.

**UNIT-2 Introduction to Building Materials: No. of Hours: 4**

- A basic introduction to building materials including properties, classification, and uses – Bricks, Stone, Cement, sand, Lime, Aggregate, Glass, etc.

**UNIT 3 Bricks and Stones masonry: No. of Hours: 10**

- **A- Bricks Masonry:** Overview of brick types, sizes, and properties, Explanation of brick bonding patterns, such as stretcher bond, header bond, and English bond.
- **B- Stones Masonry:** Introduction to different types of stones used in construction, such as granite, limestone, and sandstone. Explanation of stone masonry techniques, including random rubble, coursed rubble, and ashlar masonry. Application of mortar and the importance of proper jointing in stone construction.

**UNIT 4 Timber:** **No. of Hours: 12**

- **A- Introduction to Timber:** Overview of timber as a natural building material, including its sources and sustainability factors in interior design projects.
- **B- Types of Timber:** Classification of softwoods and hardwoods, their properties, and typical applications in carpentry and construction.
- **C- Timber Treatment**: Explanation of processes like seasoning, preservation, and treatment to improve timber's durability and resistance to pests and moisture.
- **D- Timber Defects and Maintenance**: Understanding common timber defects (knots, warping, etc.) and best practices for maintaining timber in various environmental conditions.

**Learning Experience:**

**Inside Classroom:**

Lectures and Tutorials: Students will begin with an introduction to basic building components, from foundations to roofs, gaining insights into how these elements combine to form functional structures. Tutorials will provide deeper discussions on each component, supported by diagrams and technical descriptions.

Hands-on Learning and Analysis: Through detailed analysis exercises, students will examine key building materials such as bricks, stones, cement, sand, and timber. They will explore each material's properties, uses, and suitability for different structural applications.

Construction Drawing Exercises: Students will practice creating technical drawings, specifying materials for structural elements like walls, roofs, and floors. This exercise will reinforce their ability to choose the right materials based on project requirements.

Exploration of Timber Types and Properties: Classroom sessions will cover timber's sustainability, various types, and treatment methods. Students will assess how timber's natural properties can contribute to sustainable and aesthetically appealing interior projects.

Group Projects: Collaborative activities will allow students to design interior spaces using timber, encouraging teamwork and critical thinking as they consider timber's sustainability and aesthetic impact.

**Outside Classroom:**

Field Visits to Material Suppliers: Students will visit suppliers and observe a range of building materials firsthand. This exposure to bricks, stones, and timber in a real-world context will deepen their understanding of quality, cost, and availability.

Site Visits for Construction Techniques: By observing construction sites, students will witness traditional building techniques in action, from masonry work to timber installations. Market Research on Sustainable Materials: Students will conduct surveys on sustainable building materials, gathering insights into the latest options for environmentally conscious projects

**Reference Books/Materials**


1. Barry, R. (1999). The Construction of Buildings Vol. 2. 5th Ed. New Delhi: East-West Press.
2. McKay, W. B. (2005). Building Construction Metric Vol. I–IV. 4th Ed. Mumbai: Orient
3. Longman.
4. Rangwala, S. C. (1963). Building Construction: Materials and types of Construction. 3rd Ed. New York: John Wiley and Sons.
5. Sushil-Kumar, T. B. (2003). Building Construction. 19th Ed. Delhi: Standard Publishers.

**Open Educational Resources (OER)**

SWYAM: *Principles of Construction Management By Prof. Sudhir Misra|IIT Kanpur*
*Link: https://onlinecourses.nptel.ac.in/noc19_ce29/preview*

**Evaluation Scheme:**

| **Evaluation Components** | **Weightage (%)** |
|---|---|
| **Internal marks (Internal)**<br>A. Continuous Assessment<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/Presentations/ Participation/ Case Studies/Internal Jury (minimum of five components to be evaluated)<br>B. Viva Voce (Internal) | **50**<br>20<br>30 |
| **External Marks (External)**<br>E. End Term practical Exam<br>F. Viva Voce (External) | **50**<br>20<br>30 |
| **Total** | **100** |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Practical Exam and Viva Voce separately to secure minimum passing grade)

| ADID155 | DRAWING AND DRAFTING- I | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 3 | 0 | 3 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 45 hrs | | | | | |
| Pre-Requisites/ Co-Requisites | Basic understanding of geometry, drawing tools, spatial visualization. | | | | | |

**Course Perspective**

The course developing students' skills in hand drawing, orthographic projections, and surface development. It emphasizes accurate technical and geometric representation using manual and digital techniques. Students will learn fundamental drawing principles, projection methods, and surface development, enabling them to create precise and professional technical drawings.

**Course Outcomes**

**Upon completion of the course the learner will be:**

**CO1:** Observing tools and techniques for effective commenting using Drawing and Drafting.
**CO2:** Imitating the usage and application of principle for the projection of various shapes.
**CO3:** Practicing the skills and tools in Drawing and Drafting.
**CO4:** Adapting the tools, techniques, and methods in creating different contexts.

**Course Content:**

**Unit-1. Hand drawing.** **No. of Hours: 15**

- **A**. Introduction to Basic: Pencil exercise and fundamentals of Drawing- Point, Line and types of lines and angles, shape, color, texture,
- **B**. Lettering: Lettering covers single-stroke and Gothic styles, along with various fonts, essential for enhancing creative writing and architectural presentation clarity. (Single-stroke letters, Gothic letters, Various font styles for creative writing).
- **C.** Free hand sketching: Freehand sketching includes nature drawing, still life, live sketching, and symbol representation, enhancing creativity and material visualization skills.

**Unit-2. Orthographic Projections.** **No. of Hours: 15**

- **A.** Planes of Projections**:** Definition, Meaning, and concept, Planes of Projections, First angle projections, Projection of points, Lines, and planes in different positions.
- **B.** Projection of Regular Rectilinear and Circular Solids in Various Positions: Projection of regular rectilinear and circular solids (prisms, pyramids, cones, cylinders, spheres, etc.) in different positions.
- **C.** Sections of Regular Rectilinear and Circular Solids under Various Sectional Plane Conditions: Sections of regular rectilinear and circular solids (prisms, pyramids, cones, cylinders, spheres etc.) in varying conditions of sectional plane.

**Unit-3. Development of Surfaces and scale.** **No. of Hours: 15**

- **A.** Introduction of basic solid geometry: The introduction to basic solid geometry focuses on understanding shapes and forms using lines, circles, and angles. This foundational knowledge helps in visualizing and constructing geometric structures and solving related problems.

- **B.** Scale: Understanding and using different scales (architectural, engineering). Converting measurements and scaling drawings.
- **C.** Development of surfaces: Surface development of cubes, prisms, cylinders, pyramids, cones, and spheres, Construction of sections, Intersection, and interpenetration of solid with measurement.

**Learning Experience:**
This course focuses on developing skills in hand drawing, orthographic projections, and surface development. It equips students to accurately represent and scale geometric forms, enabling them to produce precise technical drawings for various design and engineering applications.

**Inside Classroom:**
Lectures & Demonstrations: Introduce hand drawing techniques, orthographic projections, and surface development through step-by-step guidance.
Practice Sessions: Hands-on drawing exercises to practice techniques in pencil drawing, lettering, freehand sketching, and projection methods.
Project Reviews & Feedback: Ongoing evaluation of student projects and exercises to provide constructive feedback and guidance.

**Outside Classroom:**
Independent Practice: Complete drawing assignments, orthographic projections, and surface development exercises.
Project Work: Develop a final project demonstrating proficiency in hand drawing and projection techniques, integrating concepts learned in class.
Online Learning: Engage with Coursera, edX, and other online resources to reinforce learning through free courses on drawing and drafting.

**Textbooks**
1. As it is a studio-based subject, there are no specific textbooks.

**Reference Books/Materials:**
1. IH. Morris, Geometrical Drawing for Art Students - Orient Longman, Madras, 2004.
2. Francis Ching, Architectural Graphics, Van Nostrand Rein Hold Company, New York, 1964.
3. N.D.Bhatt, Elementary Engineering Drawing (Plane and Solid Geometry), Charotar Publishing House, India
4. George K.Stegman, Harry J.Stegman, Architectural Drafting Printed in USA by AmericanTechnical Society, 1966.
5. C.Leslie Martin, Architectural Graphics, The Macmillan Company, New York, 1964
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**Open Educational Resources (OER):**
**Coursera and edX Free Courses, (https://www.edx.org/)** Browse for free courses related to drawing, drafting, and design.

**Evaluation Scheme:**

| Evaluation Components | Weightage (%) |
|---|---|
| **Internal marks (Internal)**<br>A. Continuous Assessment<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/Presentations/ Participation/ Case Studies/Internal Jury (minimum of five components to be evaluated)<br>B. Viva Voce (Internal) | **50**<br>20<br>30 |
| **External Marks (External)**<br>A. End Term practical Exam<br>B. Viva Voce (External) | **50**<br>20<br>30 |
| **Total** | **100** |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Practical Exam and Viva Voce separately to secure minimum passing grade)

| ADID112 | HISTORY OF INTERIOR DESIGN | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 0 | 0 | 2 |
| Category of Course | Major (Theory) | | | | | |
| Total Contact Hours | 30 | | | | | |
| Pre-Requisites/ Co-Requisites | Basic Understanding about history of interior | | | | | |

**Course Perspective**

The course provides an in-depth exploration of furniture and interior design styles across significant historical periods, from Gothic Europe to the Post-Modern era, highlighting cultural, social, and technological influences. Through studying key movements and iconic designers, students gain a comprehensive understanding of evolving design philosophies, craftsmanship, and material use. It prepares them to analyse historical aesthetics, innovate within traditional frameworks, and apply these insights to modern interior spaces.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1**: Identifying and describing key European, Indian, and Asian interior design styles, furniture forms, and decorative elements from pre-1800 to the 20th century.

**CO2**: Analysing the materials, techniques, and cultural influences of historical design movements like Gothic, Renaissance, and Art Nouveau.

**CO3**: Applying principles from historical styles to create contemporary designs that blend traditional aesthetics with modern functionality.

**CO4**: Assessing the impact of the Industrial Revolution and movements like Bauhaus and Scandinavian Modernism on modern and postmodern interior design.

**Course Content**

**Unit-1: European Furniture and Interior Styles (Pre-1800) No. of Hours: 7**

- **A-** Gothic Influence**:** Origins, architectural forms, furniture, and ornamental design elements.
- **B-** Renaissance to Rococo: Italian and French Renaissance through Baroque, Rococo, and Regency styles; emphasis on form, opulence, and craftsmanship.
- **C-** English Influence: From Jacobean to Georgian; key transitions in British interior styles, including Queen Anne and early Colonial designs.
- **D- N**eoclassicism & Early American: Federal period in the U.S., Chippendale and Adam Brothers in Britain, and French Louis XVI, exploring symmetry, order, and early neoclassical trends.

**Unit -2: Indian and Asian Aesthetics in Interior Design (18th-19th Century)**

**No. of Hours: 7**

- **A-** Indian Styles**:** Buddhist furniture from Vaharut and Sanchi, interiors of the Golden Age.
- **B-** Far Eastern Influence**:** Traditional Chinese and Japanese styles, materials, and forms, including screens, lacquerwork, and symbolic design elements.
- **C-Islamic Interiors**: Art and furniture of Islamic influence, with a focus on patterns, materials, and spatial harmony.

**Unit -3: 19th Century Transformations and Revival Movements No. of Hours: 8**

- **A-** European Empire Styles: French Empire, English Regency, and the impact of Revivalism and Biedermeier on 19th-century furniture and interior decor.
- **B-** Iconic Furniture Types**: The** Windsor chair and innovations in structural design and craftsmanship.
- **C-** Early Modern Elements: Transitional styles preceding modernism, focusing on new materials and functional simplicity.

**Unit-4: 20th Century Modernism to Postmodern Expressions No. of Hours: 8**

- **A-** Art Nouveau and Arts & Crafts: Emphasis on nature-inspired design and craftsmanship amid industrial change.
- **B-** Impact of Industrial Revolution**:** The rise of mass-produced furniture, effects on modern society, and the Deutscher Werkbund's role in industrial design.
- **C-** The Bauhaus and Scandinavian Modernism: Study of Mies van der Rohe, Le Corbusier, Frank Lloyd Wright, Alvar Aalto, and Arne Jacobsen.
- **D-** Minimalism to Postmodernism**:** Exploration of minimalistic approaches, high-tech innovations (Eero Saarinen, Charles Eames), and the Postmodern movement led by Ettore Sottsass.
- **E- Indian Contributions**: Rathindranath Tagore's Santiniketan style, Art Deco influence in India, and contributions to global interior and furniture design.

**Learning Experience**

The course provides a comprehensive journey through the evolution of interior design and furniture, beginning with foundational European styles, from Gothic through Neoclassicism, highlighting shifts in form and ornamentation. It delves into the rich aesthetics of Indian and Asian design, emphasizing cultural and symbolic influences. Moving into the 19th century, the syllabus examines transformation and revival movements, leading to the innovations of the 20th century, including Art Nouveau, Bauhaus, and Scandinavian Modernism. The course concludes with minimalism, postmodernism, and India's contributions, equipping students to appreciate historical contexts and adapt traditional aesthetics to contemporary interior design practices.

**Inside Classroom:**

Lectures and Demonstrations: Through visual lectures, students will explore the key elements of European, Indian, and Asian historical styles, analysing furniture forms, materials, and cultural influences.

Group Work and Collaboration: In group discussions and collaborative activities, students will analyse case studies, compare design styles, and develop sketches or mood boards together.

**Outside Classroom:**

Site Visits and Observations: Students will visit museums, galleries, or historical sites (either virtually or in person) to closely observe furniture forms and interior details.

**Textbooks**

1. The History of Furniture: Twenty-Five Centuries of Style and Design in the Western Tradition, John Morley, Bulfinch (15 November 1999)

**Reference Books**

1. Furniture Design – An Introduction to Development, Material, and Manufacturing – Stuart Lawson
2. History of Modern Furniture Design – Daniela Karasova
3. Atlas of Furniture Design- Vitra Design Museum
4. The Encyclopedia of Furniture: Third Edition- Joseph Aronson

**Open Educational Resources (OER)**

**Coursera and edX Free Courses, (https://www.edx.org/)** Browse for free courses related to drawing, drafting, and design.

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks (Theory): -<br>**Continuous Assessment (30 Marks)**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/ Assignments and Essays/ Presentations/ Participation/ Case Studies/ Reflective Journals (minimum of five components to be evaluated) | 30 Marks |
| **II) Internal Marks (Theory)-Mid-Term Exam** | 20 Marks |
| **External Marks (Theory): -**<br>End Term Examination | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

| SEC069 | COMPUTER GRAPHICS-I | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 0 | 3 | 3 |
| Category of Course | Skill Enhancement Course (Practical) | | | | | |
| Total Contact Hours | 45 | | | | | |
| Pre-Requisites/ Co-Requisites | Basics Understanding of computer systems | | | | | |

**Course Perspective**

The primary objective of this course is to equip students with the skills to use computers for 2D drafting, 3D modelling, and rendering, which are essential for their development as contemporary designers and architects. This course not only enhances technical proficiency but also promotes creativity, precision, and professionalism. Additionally, it familiarizes students with realistic rendering and presentation techniques using computer software.

**Course Outcomes:**

**Upon completion of the course the learner will be:**

**CO1:** Observing the process of tools and Technique of software application for generating digital drawing and communication.

**CO2:** Imitating the tools and techniques of software application for accurate drawing creation and Modification.

**CO3:** Practicing the tools and Techniques to master in software application.

**CO4:** Adapting and Improving the tools of software application for generating accurate drawing

**Course Content**

**Unit 1: Introduction to Applications of MS Office in Presentation No. of Hours: 21**

- **A-** Introduction to MS Office applications: Introducing Microsoft Word, PowerPoint, and Excel, focusing on their use for creating and delivering effective presentations.
- **B-**Word Processing: The skills of creating, editing, formatting, and printing documents on a computer, helping students master word processing tools for effective document preparation and presentation.

**Unit 2: Introduction to AutoCAD as 2D Drafting Tool No. of Hours: 24**

- **A-** Overview of 2D Software (e.g. AutoCAD): Introduces 2D software like AutoCAD, focusing on essential tools for digital drawing, creating lines and shapes, and efficiently modifying designs with precision and speed for accurate results.
- **B-**Drawing Tools: Organizing plans, sections and elevations, drawing and printing to scale, text styles and sizes, hatches and dashed lines. Stencils and blocks advanced editing tools, and dimensioning drawings.
- **C-**Layouts and Viewports: Plotting and Printing. Practical Applications and Projects

**Learning Experience:**

The learning experience for students with presentation software and 2d drafting software, enhancing skills in drafting, formatting, and architectural presentations through practical projects that bridge software learning with real-world applications. Through hands-on exercises of software Application, the student will gain confidence in for generating digital drawing and communication.

**Inside Classroom:**

Lectures & Demos: Introduce core tools in MS Office and AutoCAD through live demonstrations, focusing on step-by-step breakdowns of essential functions.
Hands-On Labs: Practice sessions follow each demo, allowing students to apply new skills immediately with instructor support.
Interactive Sessions: Facilitate peer reviews and group discussions on projects, encouraging collaboration and constructive feedback.
Assessments: Conduct regular quizzes and project reviews, culminating in a mid-term jury where students present their work

**Outside Classroom:**

Independent Practice: Assign tasks like 2D drafts and presentations, reinforced by OER tutorials on AutoCAD and MS Office.
Project Work: Students work on an ongoing cumulative project, developing skills across multiple software tools for mid-term and final assessments.
Online Engagement: Encourage participation in AutoCAD communities and exploration of advanced resources for deeper learning.

**Textbook:**

Textbook not applicable

**Reference Books:**


1. Gindis, E. (2014). Up and Running with AutoCAD 2015: 2D & 3D Drawing and Modelling. Oxford : Elsevier.
2. Seidler, D. R. (2007). Digital Drawing for Designers: A Visual Guide to AutoCAD 2012. London Fairchild Publications.


**Open Educational Resources (OER):**

Coursera – Introduction to AutoCAD: Free course covering the basics of AutoCAD.
edX – AutoCAD Basics: Offers a foundation in AutoCAD.
GCFGlobal: Offers free tutorials on Microsoft Office applications including Word, PowerPoint, and Excel.

**Evaluation Scheme:**

| **Evaluation Components** | **Weightage** |
|---|---|
| **Internal Marks (Practical): -**<br>I. Class Involvement<br>II. Minor assignment<br>III. Major assignment | <br>10 Marks<br>10 Marks<br>30 Marks |
| **External Marks (Jury): -**<br>Viva | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

# Semester II

| Course Code<br>ADID152 | Course Title<br>INTERIOR DESIGN-II | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 4 | 4 | 6 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 90 | | | | | |
| Pre-Requisites/<br>Co-Requisites | Basic Drawing Skills, Understanding of spatial planning | | | | | |

**Course Perspective**

The Interior Design-II course provides students with an opportunity to develop essential skills by working on a guest house or studio apartment design project. Through this course, students will develop the ability to balance spatial constraints with the need for comfort, particularly in optimizing smaller spaces. The focus on integrating sustainable design practices, such as selecting eco-friendly materials and energy-efficient lighting, enables students to embrace responsible design strategies, essential in today's design industry. Students will also enhance their problem-solving and critical thinking abilities by analysing the flow of spaces, zoning private and shared areas effectively, and addressing real-world design challenges.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Demonstrating a comprehensive understanding of design principles, theories, and materials within the context of interior design.

**CO2:** Applying space planning, anthropometrics, and ergonomics to create functional and aesthetically pleasing interior environments in guest houses or studio apartments.

**CO3:** Analysing and deconstructing design challenges by evaluating spatial dynamics, material performance, and sustainability to develop effective solutions for guest houses or studio apartments.

**CO4:** Evaluating interior design projects against industry standards to ensure quality, safety, and sustainability.

**CO5:** Developing original and innovative interior design solutions through experimentation with new materials and technologies.

**CO6:** Exhibiting technical proficiency in using design tools for accurate drafting, modelling, and visualization.

**Course Content**

**Unit 1: Introduction To Design problem: No. of Hours: 18**

- **A-** Design Problem: Understanding design principles in the context of guest houses, studio apartments, and residences.
- **B-** Design in Everyday Life: Examining how interior design impacts daily activities and user experiences in guest houses, studio apartments, and residences.
- **C-** Appreciation of Design in Nature: Drawing inspiration from natural forms and patterns to influence the design of living spaces, enhancing aesthetics and functionality.
- **D- Case Studies:** Reviewing national and international examples of guest houses, studio apartments, and residences to understand diverse design approaches and solutions.

**Unit 2:** Anthropometrics And Ergonomics **No. of Hours: 24**

- **A-** Human Anthropometrics: Exploring the relationship between human dimensions and spatial design.
- **B.** Ergonomics: Understanding how ergonomics influences the design of interior spaces for functional efficiency.
- **C.** Application of Anthropometrics: Analysing how anthropometric data is used in designing spaces.
- **D.** Literature Study: Review of relevant literature on anthropometrics and ergonomics for guest houses, studio apartments, and residence design.

**Unit 3: Design Project** **No. of Hours: 48**

- **A- Spatial Planning:** Creating functional and aesthetically pleasing designs for guest houses/ studio apartments/ residences, incorporating anthropometrics, ergonomics, scale, and proportion. Addressing the specific needs of the user while ensuring optimal space utilization.
- **B- Material and Furniture Requirements:** Selecting appropriate materials and furniture with a focus on durability, aesthetics, and functionality to suit the specific needs of each space.
- **C- Design Visualization:** Developing detailed sketches and 3D models of the proposed design solutions for each type of space, allowing for visual exploration and refinement.
- **D- Project Development:** Iterating design solutions and refining concepts through plans, elevations, sections, details, model-making etc.

**Learning Experience**

This course will be delivered in an experiential and participatory manner, incorporating a mix of lectures, hands-on projects, and collaborative group activities to ensure students gain both theoretical knowledge and practical skills. The learning experience comprises both inside and outside classroom experiences.

**Inside Classroom:**

Lectures and Tutorials: Core concepts related to interior design, such as space planning, anthropometrics, ergonomics, and material selection for guest houses, studio apartments, and residences will be introduced through engaging lectures.

Hands-on Learning and Projects: Students will undertake assignments requiring the design of functional and aesthetically pleasing spaces, focusing on anthropometric data and ergonomic standards. This will involve developing detailed sketches, technical drawings, and 3D models for guest houses, studio apartments, and residences.

Group Work: Collaborative group activities will encourage students to work together in solving real-world design challenges, reinforcing teamwork and communication skills. Peer reviews will be conducted to foster a culture of constructive critique and feedback.

**Outside Classroom:**

Case Studies: Students will observe and analyze real-life guest houses, studio apartments, and residential spaces, focusing on how interior design principles, anthropometrics, and material selection are applied in practice. This will help bridge the gap between theory and real-world design practices.

Site Visits and Industry Interaction: Field visits to guest houses and residential spaces will provide students with hands-on exposure to industry standards, materials, and design

technologies. Industry workshops will further enrich their understanding of current trends and innovations in interior design.

**Textbooks:**

1. Ching, Francis D. K., "Architecture: Form, Space, and Order", Wiley and Sons
2. Time saver standard

**Reference Books**

1. Wallschlaeger, C and Snyder, S.B., "Basic Visual Concepts and Principles for Artists, Architects and Designers", McGraw Hill.

**Open Educational Resources (OER)**

**Coursera- Designing Spaces for Innovation**

URL: https://www.coursera.org/learn/design-thinking-innovation

**Evaluation Scheme**

| **Evaluation Components** | | **Weightage** |
|---|---|---|
| 1. | **Internal Marks** | **50** |
| A. | Sheets submission | 20 |
| B. | Model | 10 |
| C. | Mid Term | 20 |
| 2. | **External Marks** | **50** |
| A. | External Viva | 30 |
| B. | End Term Exam | 20 |
| **Total** | | **100 Marks** |

(It is mandatory for students to secure 40% marks in Internal & external End term practical exam & external Viva.)

| ADID154 | CONSTRUCTION AND MATERIALS -II | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 3 | 0 | 3 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 45 | | | | | |
| Pre-Requisites/ Co-Requisites | Basic understanding of materials and drafting skills/ Observation, drawing skills, and maintaining journals for construction materials. | | | | | |

**Course Perspective**

To acquaint students with the properties, applications, and practical usage of key building materials like brick and stone, helping them understand their roles in construction projects. To familiarize students with the essential construction techniques and methods required for working with materials like brick and stone, providing them with practical knowledge for applying these techniques in real-world building works.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Identifying various building materials, such as brick and stone, and explaining their properties, applications, and significance in both structural and interior contexts.

**CO2:** Applying fundamental construction techniques in brick and stone masonry, with practical exercises focused on both exterior and interior applications.

**CO3: Analyzing** the suitability of different building materials, such as brick and stone, for various construction and interior design tasks, considering factors like properties, durability, aesthetics, and cost-effectiveness.

**CO4:** Creating accurate construction and interior detail drawings, using knowledge of materials and techniques suited for both structural and interior applications.

**CO5:** Developing an understanding of decorative and functional uses of brick and stone in interior spaces, including installation techniques, finishes, and detailing for elements like accent walls, fireplaces, and cladding.

**Course Content**

**Unit-I. Brick Masonry** **No. of Hours: 18**

- **A- Properties and Application of Brick**: Manufacturing process, physical and chemical properties Applications of Brick.
- **B- Brick Bonds**: Foundation, walling material, types of brick walls, brick masonry (English, Flemish, rat trap bond)
- **C- Construction techniques and drawings:** Detailed brick layout at corners, junctions, and brick piers, style of construction viz., exposed brickwork, jack arch roof, brick paving, brick arches and domes, reinforced brick roofs and walls, brick piers, etc.

*Sets of drawings: types of bricks, types of bonds like; header and stretcher bond, English, and Flemish bonds, Rat trap bond, types of material indications, t- t-junctions and cross-junctions, Piers, Jamb*

**Unit-II. Stone Masonry** **No. of Hours: 18**

- **A- Properties and Application of Stone:** Types of Stones (granite, laterite, quartzite, marble, slates), uses of stone, deterioration & preservation of stone, availability, properties and application of stones for construction in India. Stone for finishing, cutting & polishing. Granite & Marble.
- **B- Stone Masonry Techniques and Drawings:** Types of stone masonry- Random Rubble Masonry, Coursed Rubble Masonry, Ashlar Masonry, Stone Foundations, Stone Arches.

*Sets of drawings: Rubble stone masonry and Ashlar stone masonry with arches*

**Unit-III. Interior Applications of Brick and Stone** **No. of Hours: 9**

- **A. Decorative and Functional Uses of Brick and Stone in Interiors:** Exploring the use of exposed brick and stone in interior design elements such as accent walls, fireplaces, archways, and feature walls. Examining aesthetic choices, patterns, and finishing techniques to enhance the visual appeal and functionality of interior spaces. Understanding design considerations like texture, color, and material compatibility with interior themes.
- **B. Detailing and Installation Techniques for Interior Brick and Stone Applications:** Techniques for achieving precise detailing, clean lines, and structural stability in interior brick and stone features. Applications include niches, recessed shelves, integrated seating, and cladding. Discussing installation methods for stone and brick, including handling joints, transitions, and edging to ensure seamless integration within interior environments.

*Sets of Drawings: Detailed sets of drawings depicting interior layouts for brick and stone applications. Includes plans and elevations for accent walls, feature walls, flooring patterns, and countertop detailing.*
*Annotations cover bonding patterns (e.g., herringbone, basketweave, stack bond), surface finishes (polished, honed, textured), and installation specifics tailored for interior applications.*

**Learning Experience:**

**Inside Classroom:**

Lectures and Hands-on Analysis: Students will examine various types of bricks and stones, learning about their properties, durability, and suitability for different construction tasks. Instructors will guide discussions on factors like chemical composition and aesthetic qualities, enhancing students' material literacy.

Technical Skill Development through Drawing Exercises: Students will learn construction drawing techniques, creating detailed layouts of brick bonds, stone masonry styles, and architectural details such as arches and piers. Through step-by-step tutorials, they'll develop proficiency in drafting precise masonry details.

Project Assignments: In-class assignments will require students to apply their knowledge of materials to interior and exterior design concepts, integrating brick and stone elements. This exercise helps students understand the functional and aesthetic roles of these materials in design, reinforcing their application skills.

Group Work and Collaboration

Collaborative Masonry Designs: In groups, students will work on hypothetical design projects that incorporate brick and stone, such as accent walls, arches, and textured stone elements. These

activities foster teamwork and problem-solving skills, encouraging students to consider the spatial and visual impact of materials.

**Outside Classroom:**

Field Visits to Material Suppliers and Construction Sites: Students will visit material suppliers to examine different types of bricks and stones firsthand, learning about sourcing, quality, and pricing. Technical Skill Development through Observational Studies

Site Studies of Masonry Techniques and Applications: Field exercises will allow students to sketch and document masonry layouts, patterns, and architectural details observed at construction sites or historical buildings.

Market Research on Material Trends: Students will conduct surveys and research on brick and stone options in the market, such as eco-friendly bricks or locally sourced stones.

**Text Book:**

1. Sushil-Kumar, T. B. (2003). Building Construction. 19th Ed. Delhi: Standard Publishers

**Reference Books:**

1. Barry, R. (1999). The Construction of Buildings Vol. 2. 5th Ed. New Delhi: East-West Press.
2. McKay, W. B. (2005). Building Construction Metric Vol. I–IV. 4th Ed. Mumbai: Orient Longman.
3. Rangwala, S. C. (1963). Building Construction: Materials and types of Construction. 3rd Ed. New York: John Wiley and Sons.

**Open Educational Resources (OER)**

SWYAM: *Principles of Construction Management By Prof. Sudhir Misra|IIT Kanpur*
*Link: https://onlinecourses.nptel.ac.in/noc19_ce29/preview*

**Evaluation Scheme:**

| **Evaluation Components** | **Weightage (%)** |
|---|---|
| **Internal marks (Internal)**<br>A. Continuous Assessment<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/Presentations/ Participation/ Case Studies/Internal Jury (minimum of five components to be evaluated)<br>B. Viva Voce (Internal) | **50**<br>20<br>30 |
| **External Marks (External)**<br>A. End Term practical Exam<br>B. Viva Voce (External) | **50**<br>20<br>30 |
| **Total** | **100** |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Practical Exam and Viva Voce separately to secure minimum passing grade)

| ADID172 | DRAWING AND DRAFTING | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 0 | 3 | 3 |
| Category of Course | Major (Practical) | | | | | |
| Total Contact Hours | 45 hrs | | | | | |
| Pre-Requisites/ Co-Requisites | Basic understanding of geometry, drawing tools, and spatial visualization. | | | | | |

**Course Perspective**

The course equips students on enhancing students' skills in architectural drawing, including isometric, axonometric, and perspective views, sociography, and rendering techniques. It aims to develop proficiency in creating accurate, detailed technical drawings and visually compelling representations of architectural designs using various methods and mediums to communicate design ideas effectively.

**Course Outcomes:**

**Upon completion of the course the learner will be:**

**CO1:** Observing Tools and techniques for effective commenting using Drawing and Drafting.

**CO2:** Imitating the usage and application of principle for the projection of various shapes.

**CO3:** Practicing the skills and tools in Drawing and Drafting.

**CO4:** Adapting the tools, technique, and methods in creating different contexts.

**Course Content**

**Unit-1. Isometric and Axonometric Views** **No. of Hours: 11**

- **A.** Introduction: Introduction to views, including isometric, axonometric, and oblique perspectives. Covers their types, advantages, and application in representing objects, building components, and interior spaces for accurate and clear visualization.

**Unit-2. Fundamentals of Perspectives-I** **No. of Hours: 11**

- **A**. Introduction to perspectives: The fundamental concepts, illustrating how perspectives provide a more realistic representation of objects and spaces compared to traditional views.
- **B.** Types of perspectives: Types of perspectives include one-point, two-point, and three-point perspectives. This section covers key concepts like the picture plane, station point, vanishing point, eye level, ground level, and their variations and effects on representation.

**Unit-3. Sociography** **No. of Hours: 11**

- **A.** Introduction to Sciography: Principles of shade & shadow, Shadows of lines, planes & simple solids due to near & distant sources of light, shadows of architectural elements, Construction of sociography on building, Application of sociography on pictorial views.

**Unit-4. Rendering Techniques** **No. of Hours: 12**

- **A.** Representation Techniques in Architectural Drawing: Plan, Elevation, Section, Kinetics, Optics, and Rendering Themes: A technique of plan, elevation & section in architectural drawing. Kinetics & Optics, Monochromatic & different themes of rendering,
- **B.** Architectural rendering: A architectural rendering techniques using pen & ink, color, values, tones, and general approach to rendering.
- **C.** Architectural representation and symbols**:** Representing of trees, hedges, foliage, human figures, cars, symbols etc., exposure to various mediums of presentation

**Learning Experience:**

The course teaches skills in isometric and axonometric views, perspective drawing, and sociography. Students learn to accurately represent objects and architecture, applying shading, shadows, and rendering techniques using pen, ink, and color. Emphasis is placed on realistic and clear visualizations for architectural drawings, enhancing precision and creativity.

**Inside Classroom:**

Lectures & Demonstrations: Introduce hand drawing techniques, orthographic projections, and surface development through step-by-step guidance.

Practice Sessions: Hands-on drawing exercises to practice techniques in pencil drawing, lettering, freehand sketching, and projection methods.

Project Reviews & Feedback: Ongoing evaluation of student projects and exercises to provide constructive feedback and guidance.

Group Discussions: Encourage peer collaboration and critique, fostering understanding of technical drawing principles and their applications.

**Outside Classroom:**

Independent Practice: Complete drawing assignments, orthographic projections, and surface development exercises.

Project Work: Develop a final project demonstrating proficiency in hand drawing and projection techniques, integrating concepts learned in class.

Online Learning: Engage with Coursera, edX, and other online resources to reinforce learning through free courses on drawing and drafting.

**Textbooks:**

1. As it is a studio-based subject, there are no specific text books.

**Reference Books/Materials:**


1. Atkins, B. (1986). Architectural Rendering. California : Walter Foster Art Books.
2. Batley, C. (1973). Indian Architecture. Bombay : D. B. Taraporevale Sons.
3. Bhatt, N. D. (2003). Engineering Drawing. Anand : Charotar Publishing House.
4. Ching, F. D. K. (2009). Architectural Graphics. 5th Ed. Hoboken : John Wiley & Sons.
5. Ching, F. D. K. (2011). A Visual Dictionary of Architecture. 2nd Ed. Hoboken:John Wiley & Sons.
6. Dinsmore, G. A. (1968). Analytical Graphics. Canada : D.Van Nostrand, Company Inc.
7. Halse, A. O. (1972). Architectural rendering; the techniques of contemporary presentation. 2nd Ed. New York : McGraw-Hill.
8. Holmes, J. M. (1954). Applied Perspective. London : Sir Isaac, Piotman and Sons Ltd.
9. Narayana, K. L. and Kannaiah, P. (1988). Engineering Graphics. New Delhi : Tata McGraw-Hill.
10. Norling, E. (1969). Perspective drawing. California : Walter Fostor Art Books.
11. Robert, W. G. (2006). Perspective: From Basic to Creative. 1st Ed. London : Thames and Hudson.
12. C.Leslie Martin, Architectural Graphics, The Macmillan Company, New York, 1964


**Open Educational Resources (OER):**

**Coursera and edX Free Courses, (https://www.edx.org/)** Browse for free courses related to drawing, drafting, and design.

**Evaluation Scheme:**

| Evaluation Components | Weightage (%) |
|---|---|
| **Internal marks (Internal)**<br>C. Continuous Assessment<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/Presentations/ Participation/ Case Studies/Internal Jury (minimum of five components to be evaluated)<br>D. Viva Voce (Internal) | **50**<br>20<br>30 |
| **External Marks (External)**<br>C. End Term practical Exam<br>D. Viva Voce (External) | **50**<br>20<br>30 |
| **Total** | **100** |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Practical Exam and Viva Voce separately to secure minimum passing grade)

| SEC082 | COMPUTER GRAPHICS-II | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 0 | 3 | 3 |
| Category of Course | Skill Enhancement Course (Practical) | | | | | |
| Total Contact Hours | 45 hrs. | | | | | |
| Pre-Requisites/ Co-Requisites | Basics Understanding of computer | | | | | |

**Course Perspective:**

The primary objective of this course to empowering students to use computers for 2D drafting, 3D modelling, and rendering is crucial for their development as modern designers and architects. It hones their technical skills but also fosters creativity, precision, and professionalism. It also helps to familiarize realistic rendering and presentation techniques using computers.

**Course Outcomes:**

**Upon completion of the course the learner will be:**

**CO1:** Observing the process of tools and Technique of software application for generating digital drawing and communication.

**CO2:** Imitating the tools and techniques of software application for accurate drawing creation and Modification.

**CO3:** Practicing the tools and Techniques to master in software application.

**CO4:** Adapting and improving the tools of software application for generating accurate drawing

**Course Content:**

**Unit 1: Introduction to Graphic design software. No. of Hours: 15**

- **A. Introduction of graphic software:** Introduction to graphic design software, Basics of Editing and Compositing, designing and rendering.

**Unit 2: Introduction to 3D Modelling. No. of Hours: 15**

- **A. Overview of 3D Modelling:** Introduction to 3D Modelling (i.e. sketch up), Getting Started with 3D Modelling Software –installation, setup, user interface, basic navigation,
- **B. Basic 3D Modelling Techniques:** Basic 3D modelling techniques, including shape creation, transformation, and modification, to build and refine 3D objects effectively.
- **C. Advanced 3D Modelling Techniques:** Advance technique on modelling complex objects using modifiers and applying textures to enhance realism and detail

**Unit 3: Introduction Rendering to 3D Modelling. No. of Hours: 15**

- **A. Basic Rendering Concepts:** The fundamentals of rendering, including understanding lighting, material properties, and camera setup for realistic visuals.
- **B. Introduction to rendering engines (e.g., V-Ray, Cycles, Arnold):** Learn to use rendering engines (V-Ray, Cycles, Arnold) for realistic materials, effective lighting setups, and optimized render settings for high-quality results.

**Learning Experience:**

The learning experience for students with presentation software and 2d drafting software, enhancing skills in drafting, formatting, and architectural presentations through practical projects that bridge software learning with real-world applications. Through hands-on exercises of software Application, the student will gain confidence in for generating digital drawing and communication.

**Inside Classroom:**

Lectures & Demos: Introduce core tools in MS Office and AutoCAD through live demonstrations, focusing on step-by-step breakdowns of essential functions.

Hands-On Labs: Practice sessions follow each demo, allowing students to apply new skills immediately with instructor support.

Interactive Sessions: Facilitate peer reviews and group discussions on projects, encouraging collaboration and constructive feedback.

Assessments: Conduct regular quizzes and project reviews, culminating in a mid-term jury where students present their work

**Outside Classroom:**

Independent Practice: Assign tasks like 2D drafts and presentations, reinforced by OER tutorials on AutoCAD and MS Office.

Project Work: Students work on an ongoing cumulative project, developing skills across multiple software tools for mid-term and final assessments.

Online Engagement: Encourage participation in AutoCAD communities and exploration of advanced resources for deeper learning.

**Textbook:**

Textbook not applicable

**Reference Books/Materials:**


1. Gindis, E. (2014). Up and Running with AutoCAD 2015: 2D & 3D Drawing and Modelling. Oxford : Elsevier.
2. Seidler, D. R. (2007). Digital Drawing for Designers: A Visual Guide to AutoCAD 2012. London Fairchild Publications.


**Open Educational Resources (OER):**

**Coursera – SketchUp for Interior Design** Free course on using SketchUp for interior design.

**Udemy – SketchUp and Layout for Beginners** Beginner-friendly course on SketchUp.

**Udemy – Photoshop Fundamentals** Beginner to advanced Photoshop techniques.

**Evaluation Scheme:**

| **Evaluation Components** | **Weightage** |
|---|---|
| **Internal Marks (Practical): -** | |
| I. Class Involvement | 10 Marks |
| II. Minor assignment | 10 Marks |
| III. Major assignment | 30 Marks |
| **External Marks (Jury): -** | |
| Viva | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

| SEC084 | INTERIOR DESIGN WORKSHOP | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 0 | 4 | 2 |
| Category of Course | Skill Enhancement Course (Practical) | | | | | |
| Total Contact Hours | 60 | | | | | |
| Pre-Requisites/ Co-Requisites | Logical thinking | | | | | |

**Course Perspective**

The subject Carpentry Workshop course aims to provide students with hands-on experience in essential carpentry skills and techniques necessary for interior design. Emphasizing practical learning, this course will enable students to understand the properties of different wood types, tools, and materials while developing their ability to create functional and aesthetically pleasing wooden structures. Through practical exercises, students will enhance their problem-solving skills and logical thinking, preparing them for real-world applications in the interior design industry. Students will have a solid foundation in carpentry practices, enabling them to incorporate these skills into their design projects effectively.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Identifying and recalling basic carpentry tools, materials, and techniques essential for interior design applications.

**CO2:** Understanding the properties and characteristics of different types of wood and assessing their suitability for various design projects.

**CO3:** Applying carpentry tools and techniques to construct basic wooden structures, demonstrating practical skills in a workshop setting.

**CO4:** Creating designs and assessing functionality in carpentry projects, identifying areas for improvement and making recommendations based on structural integrity and aesthetic appeal.

**Course Content**

**Unit-1. Introduce to Carpentry: No. of Hours 16**

- **A- Introduction to Wood**: Familiarizing students with carpentry tools, basic processes, wooden carpentry terminology, and woodworking machines.
- **B- Understanding Wood Types and Properties**: Exploring common wood types used in carpentry, including hardwoods and softwoods. Students will assess each wood type's physical and mechanical properties, such as durability, grain patterns, and suitability for interior design applications.

**Unit 2: Wooden Joinery No. of Hours: 24**

- **A- Carpentry Joints - Technical Terms and Classification**: Understanding different types of joints, including lengthening, spliced, or longitudinal joints, bearing joints, framing joints, angle/corner joints, oblique/shouldered joints, and widening or side joints.
- **B- Fastenings and Connecting Devices**: Exploring various fastenings, carpentry tools, and connecting devices used in joinery.

- **C- Joint Demonstration**: Demonstrating the use of carpentry tools in creating joints, such as the Dovetail Joint, Mortise and Tenon Joint, Lap Joint, and Butt Joint, applicable in furniture making.

**Unit 3: Cutting, Shaping, and Finishing Wood** **No. of Hours: 24**

- **A- Preparation of Wooden Joints**: Hands-on practice in creating joints (Lap and Butt) using metal arc welding.
- **B- Finishing Techniques**: Introduction to sanding, staining, and varnishing, with a focus on understanding the effects of each process on interior finishes.

**Unit 4: Model Creation** **No. of Hours: 24**

- **A. Introduction to Scale Modelling**: Teaching students to select materials for scale models, understand scale ratios, and apply techniques for creating both 2D and 3D models.
- **B. Model-Building Techniques**: Developing practical skills in safe and effective tool use, exploring various modelling techniques such as hand-cutting, assembly, and finishing.
- **C. Crafting 3D Models**: Learning to create models with attention to craftsmanship, functionality, and design precision.

**Learning Experience:**

The learning experience for students in the *Carpentry Workshop* will be highly interactive and hands-on, allowing them to develop practical skills in carpentry and woodworking. Through guided demonstrations and independent practice, they will also explore the basics of welding, further broadening their skill set in fabrication and craftsmanship. This practical exposure will enhance their understanding of material manipulation and construction techniques essential for interior design.

Interactive and Engaging Learning: The workshop setting promotes active learning through demonstrations and guided practice. As students apply tools to create joints, scale models, and finishes, they engage directly with the material, allowing for a deeper grasp of woodworking principles.

Critical Thinking and Problem-Solving: The workshop activities are designed to encourage critical thinking and problem-solving. Students will analyse wood properties, assess appropriate joinery techniques, and troubleshoot issues during model creation.

Hands-On Model Creation: By working on scale models and 3D structures, students gain insight into how carpentry integrates into interior design projects.

**Reference Books:**


1. Raghuwanshi, B.S., "A Course in Workshop Technology – 'Vol. I and II', Dhanpat Rai and Co.
2. McKay, W. B., Building Construction (Metric) (vol. 1 to 4).
3. Mills, Criss B., "Designing with Models: A Studio Guide to Making and Using Architectural Models", Thomson and Wadsworth.


**Open Educational Resources (OER)**

1. *Introduction to carpentry tools and joints*
   *Link:https://gppanchkula.ac.in/wp-content/uploads/2020/03/INTRODUCTION-TO-CARPENTRY-TOOLS-AND-JOINTS.pdf*

**Evaluation Scheme:**

| Evaluation Components | Weightage |
|---|---|
| **Internal Marks (Practical): -** | |
| I. Class Involvement | 10 Marks |
| II. Minor assignment | 10 Marks |
| III. Major assignment | 30 Marks |
| **External Marks (Jury): -** | |
| Viva | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

# Semester III

| Course Code<br>ADID251 | Course Title<br>INTERIOR DESIGN-III | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 6 | 0 | 8 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 120 | | | | | |
| Pre-Requisites/<br>Co-Requisites | Basic Drafting and Drawing Skills, Basic Knowledge of Design Principles | | | | | |

**Course Perspective**

The Interior Design III course focused on a day-care for 6 months to five-year-olds that emphasizes creating safe, stimulating, and functional spaces for young children. The design problem addresses child safety, comfort, and development through thoughtful spatial planning, colour schemes, furniture selection, and ergonomics tailored for children. Students will learn to design environments that promote cognitive and social growth while ensuring safety regulations, accessibility, and ease of supervision. Using hands-on projects, case studies, and group work, students will engage in creating playful, yet practical designs that foster a nurturing and engaging atmosphere for both children and caregivers.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1: Demonstrating** a comprehensive understanding of design principles, theories, and materials within the context of interior design.

**CO2: Applying** space planning, colour theory, and ergonomics to create functional and aesthetically pleasing interior environments.

**CO3: Analysing** and deconstructing design challenges by evaluating spatial dynamics, material performance, and sustainability to develop effective solutions.

**CO4: Evaluating** interior design projects against industry standards to ensure quality, safety, and sustainability.

**CO5: Developing** original and innovative interior design solutions through experimentation with new materials and technologies.

**CO6: Exhibiting** technical proficiency in using design tools and software for accurate drafting, modelling, and visualization.

**Course Content**

**Unit 1: Introduction to Design** **No. of Hours: 24**

- **A. Importance of Design**: Understanding foundational concepts of design, its role in creating functional and aesthetically pleasing environments, and its importance in shaping day care spaces.
- **B. Literature Review on Day Care Design**: Reviewing relevant academic and professional literature related to the design of day care spaces, focusing on anthropometrics, ergonomics, safety, and child development.
- **C. Norms, Codes, and Standards**: Understanding the regulatory framework for designing day care facilities, including building codes, safety standards, and guidelines specific to

children's spaces, covering international and national standards such as BIS (Bureau of Indian Standards) and child safety codes.

**Unit 2: Human Anthropometrics and Space Planning for Children No. of Hours: 24**

- **A- Human Anthropometrics**: Studying the anthropometric data of children, focusing on the physical dimensions and ergonomics essential for designing functional and safe day care environments.
- **B- Space Planning for Day Care**: Exploring how anthropometric data impacts the layout and design of day care spaces, including circulation areas, play zones, rest areas, and learning spaces that cater to the needs of children of different ages.
- **C- Norms and Standards in Day Care Spaces**: Reviewing specific safety, accessibility, and comfort standards necessary for day care environments, including guidelines on child safety and ergonomics.
- **D- Case Study of Day Care Facilities**: Analysing existing day care centres to understand best practices in space planning, design challenges, and how children's physical and developmental needs are integrated into the design.

**Unit 3: Site Analysis for Day Care/Creche No. of Hours: 24**

- **A- Site Evaluation**: Conducting a thorough evaluation of potential sites for day care or creche facilities, assessing factors such as accessibility, safety, and proximity to residential areas.
- **B- Environmental Considerations**: Analysing environmental aspects, including natural light, ventilation, noise levels, and outdoor space, and understanding how these elements influence the design and functionality of day care environments.
- **C- Community Needs Assessment**: Identifying the specific needs of the community regarding day care services, engaging with parents, educators, and community stakeholders to gather input on desired features and services.
- **D- Regulatory Compliance**: Reviewing local zoning laws, building codes, and safety regulations pertinent to day care facilities to ensure the design meets all necessary standards and requirements.

**Unit 4: Design Project for Day Care/Creche No. of Hours: 48**

- **A- Space Design**: Designing functional and aesthetically pleasing day care or creche spaces, incorporating anthropometrics, ergonomics, and proportion to accommodate various child activities like playing, resting, and learning.
- **B- Material and Furniture Selection**: Identifying and specifying materials and furniture that are safe, durable, and child-friendly, with special attention to non-toxic materials, rounded edges, and easy-to-clean surfaces that support health and safety regulations.
- **C- Design Visualization**: Developing detailed sketches, floor plans, and 3D models of proposed day care spaces, emphasizing child-centric design solutions that consider scale, proportion, and visual stimulation for young children.
- **D- Project Development and Refinement**: Refining design solutions through feedback and iterative development, including hands-on exploration through physical models, digital

simulations, and peer reviews to ensure functional and creative design outcomes for day care spaces.

**Learning Experience**

This course will be delivered through immersive and participatory methods, incorporating a mix of lectures, hands-on projects, and collaborative group activities to ensure students gain both theoretical knowledge and practical skills. The learning experience comprises both inside and outside classroom experiences.

**Inside Classroom:**

Lectures and Discussions: Core concepts related to child development, safety, ergonomics, and design principles will be introduced through engaging lectures, supported by discussions that encourage critical thinking and application.

Hands-on Projects: Assignments will involve creating design proposals for day care spaces, allowing students to apply spatial planning, colour psychology, and furniture selection specifically tailored for young children.

Collaborative Activities: Students will engage in group work to tackle design challenges, reinforcing teamwork, communication skills, and the ability to provide constructive critiques on peer designs.

**Outside Classroom:**

Case Studies: Students will analyze real-world day care facilities to understand successful design practices, focusing on how safety and child-centric principles are integrated into diverse spaces. This approach bridges theory and practical application.

Site Visits: Field trips to existing day care centres will provide students with practical exposure to professional design environments, enhancing their understanding of spatial dynamics and functionality in real-life settings.

Client Simulations: Engaging in role-playing scenarios with 'clients' will prepare students to address specific design needs and preferences, fostering skills in communication and adaptability in design processes.

This structured approach ensures a comprehensive learning experience that combines theoretical foundations with practical applications, preparing students for real-world challenges in day care design.

**Textbooks:**

1. Ching, Francis D. K., “Architecture: Form, Space, and Order”, Wiley and Sons

**Reference Books**

1. Wallschlaeger, C and Snyder, S.B., “Basic Visual Concepts and Principles for Artists, Architects and Designers”, McGraw Hill.
2. Laseau, P, “Graphic Thinking For Architects and Designers”, John Wiley and Sons

**Open Educational Resources (OER):**

https://onlinecourses.swayam2.ac.in/aic19_de02/preview
https://www.archdaily.com/category/day-care

https://www.gsa.gov/system/files/designguidesmall.pdf

**Evaluation Scheme**

| Evaluation Components | Weightage |
|---|---|
| **Internal Marks** | **50** |
| A. Sheets submission | 20 |
| B. Model | 10 |
| C. Mid Term | 20 |
| **External Marks** | **50** |
| A. External Viva | 30 |
| B. End Term Exam | 20 |
| **Total** | **100 Marks** |

(It is mandatory for students to secure 40% marks in Internal & external End term practical exam & external Viva.)

| ADID253 | CONSTRUCTION AND MATERIALS -III | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 3 | 0 | 3 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 45 | | | | | |
| Pre-Requisites/ Co-Requisites | Basic understanding of materials and drafting skills/ Observation, drawing skills | | | | | |

**Course Perspective**

This course focuses on the design and construction of essential architectural elements, including doors, windows, and staircases. Students will explore various types of doors and windows based on materials and functionality, emphasizing joinery techniques and hardware fixtures. The curriculum will cover staircase design, including terminology and types, with an emphasis on wooden finishes and construction details. The course aims to equip students with the knowledge and skills necessary for effective interior design and construction practices.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Identifying and categorizing different types of doors and windows based on make, usage, and material, along with understanding hardware fixtures and joinery.

**CO2:** Analyzing construction details and fixing techniques of various timber doors and windows, emphasizing practical applications in design.

**CO3:** Applying construction techniques to designing and detailing wooden elements, focusing on joinery and fixing details specific to doors and windows.

**CO4:** Creating accurate construction drawings for timber doors, windows, and staircases, including joinery and fixing details according to industry standards.

**Course Content**

**Unit-I. Wooden Door** **No. of Hours: 15**

- **A- Types of doors** -Battened Door, Ledged Door, Braced Door, Flush Door, Panelled Door.
- **B- Hardware Fixtures and Joinery Techniques** - Types and functions of hardware used in door construction, overview of joinery methods applicable to door construction.

*Set of Drawings: Types of timber doors with joinery and fixing details.*

**Unit-II. Wooden Windows and Ventilators** **No. of Hours: 15**

- **A- Types of Windows-** Casement Window, Fixed Windows, Glazing, Louvered Windows, Bay Windows,
- **B- Joinery Techniques and Window-Fixing Details-** Overview of hardware components for window installations, techniques used in the construction of wooden windows and methods for properly fixing windows in structures.

*Set of drawing- Types of timber windows and ventilators with joinery and fixing details.*

**Unit-III: Staircases/Mezzanine Floors** **No. of Hours: 15**

- **A- Definitions and Components of Staircase**- Key Components of Staircases- Treads, Risers, Handrails, Landings, Stringers, Balusters etc.

- **B- Types of Staircases-** Benefits, typical applications, and construction details. Straight Staircase, L-Shaped (Quarter Turn) Staircase, U-Shaped (Half Turn) Staircase, Circular (Spiral) Staircase, Floating Staircase etc.

*Set of Drawings- Types of staircases with timber stairs joinery and fixing details.*

**Learning Experience:**

Inside Classroom:

Lectures and Drawing Tutorials: Through structured lessons and tutorials, students will learn drafting techniques to create precise construction drawings for doors, windows, and staircases. Emphasis will be placed on industry standards, helping students visualize and accurately communicate their designs.

Hands-On Studio Practice: In guided studio sessions, students will work on detail projects focused on timber doors, windows, and staircases. They will apply theoretical concepts, using drafting tools to detail joinery, fixing methods, and hardware placement.

Model-Making Exercises: Students will build scale models and prototypes, experimenting with joinery techniques and exploring various hardware fixtures. This exercise allows them to test ideas and refine their understanding of construction details, reinforcing practical skills in material handling and assembly.

Outside Classroom:

Visits to Joinery Workshops and Construction Sites: Students will visit local joinery workshops to observe door and window production processes, gaining practical insights into joinery techniques and materials. Construction site visits will allow them to examine how these elements are fixed and integrated into buildings.

Exploring Material and Hardware Options: Students will conduct field research on available materials, hardware fixtures, and joinery options, noting quality, pricing, and durability. This research deepens their understanding of market trends and helps inform their design decisions.

Case Study Assignments: Students will analyze real-world examples of doors, windows, and staircases, taking note of construction details, finishes, and material choices. They will sketch these elements and document their observations, strengthening their ability to translate ideas from real-world examples to design applications.

**Reference Books:**


1. Barry, R. (1999). The Construction of Buildings Vol. 2. 5th Ed. New Delhi: East-West Press.
2. Bindra, S.P. and Arora, S.P. (2000). Building Construction: Planning Techniques and Methods of Construction, 19th Ed. New Delhi : Dhanpat Rai Publications
3. McKay, W. B. (2005). Building Construction Metric Vol. 1–IV, 4th Ed. Mumbai: Orient Longman.
4. Rangwala, S. (2004). Building Construction. 22nd Ed. Anand.: Charotar Pub. House.
5. Sushil-Kumar, T. B. (2003). Building Construction, 19 Th Ed. Delhi : Standard Publishers.


**Open Educational Resources (OER)**

*SWAYAM: Building Materials And Composites*

*LINK: https://onlinecourses.nptel.ac.in/noc22_ar14/preview*

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks (Studio): -<br>III.**Continuous Assessment**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/Presentations/ Participation/ Case Studies/Internal Jury<br>(minimum of five components to be evaluated)<br>Mid Term Jury | <br><br><br><br>30 Marks<br>20 Marks |
| **External Marks (Studio): -**<br>End Term Examination | <br>50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

| ADID213 | INTERIOR SERVICES-I DRAINAGE & PLUMBING | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 0 | 0 | 2 |
| Category of Course | Major (Theory) | | | | | |
| Total Contact Hours | 30 | | | | | |
| Pre-Requisites/ Co-Requisites | Interior Design Fundamentals, Construction Basics, Logical thinking | | | | | |

**Course Perspective**

The course, Interior Services-I Drainage & Plumbing, equips students with fundamental and advanced knowledge of plumbing systems, and essential components of interior design. Students will learn about water supply, drainage systems, material selection, and eco-friendly solutions like rainwater harvesting and wastewater treatment. By mastering both traditional and modern technologies, they can integrate plumbing systems seamlessly into interior design, ensuring spaces are practical, comfortable, and environmentally responsible.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding fundamental principles of water supply and drainage systems to design effective plumbing layouts for residential and commercial interior spaces.

**CO 2:** Applying advanced techniques in material selection and piping layouts to create efficient and functional water supply systems for interior spaces.

**CO 3:** Evaluating drainage systems and sanitation layouts for sustainability by implementing eco-friendly solutions like rainwater harvesting and wastewater treatment in interior spaces.

**CO 4:** Creating technical drawings to represent water supply and drainage systems accurately for various interior schemes.

**Course Content**

**Unit I: Fundamentals of Plumbing Systems in Interiors No. of Hours: 8**

- A- Introduction to Plumbing in Interior Design: Importance and scope of plumbing systems within residential and commercial interiors.
- B- Water Demand and Supply: Standards, calculation methods, and requirements for interior spaces.
- C- Building Water Supply Systems: Hot and cold-water systems, supply techniques (gravity and pump-driven), storage (underground and overhead tanks), and pressure management within interiors.
- D- Piping Systems and Materials: Types of pipes used in interior design, materials, sizes, and joining methods. Plumbing Fixtures and Accessories such as taps, valves, cocks, water meters, and other relevant fittings are commonly used in interior spaces.
- E- Water Supply Layouts in Interiors: Design criteria for kitchens, bathrooms, and other functional spaces within a building.

**Unit II: Drainage Systems in Interior Spaces** **No. of Hours: 8**

- **A-** Principles of Drainage in Interiors**:** Essential concepts for effective drainage system planning and execution. Sanitary Drainage System Design for layout design of residential, commercial, and multi-storied buildings, focusing on bathrooms and kitchens**.**
- B- Pipes, Traps, and Fixtures**:** Types, materials, sizes, and functions of drainage pipes and traps in interior spaces.
- C- Rainwater Harvesting in Interiors: Techniques for rainwater collection, storage, and use within interior spaces.

**Unit III: Plumbing and Sanitation Design Considerations** **No. of Hours: 7**

- A- Designing Plumbing Systems for Interior Spaces**:** Key design considerations for kitchens, bathrooms, and lavatory blocks in both domestic and multi-storeyed buildings.
- B- Sanitary Fittings and Fixing Methods: Standards for installing washbasins, sinks, water closets, bathtubs, urinals, bidets, and related accessories.
- C- Indian Standards and Model Byelaws for Interiors: Compliance with plumbing and sanitation codes for interior spaces, including drainage and water supply.
- D- Plumbing Drawings and Symbols for Interiors: Preparing technical drawings with standardized symbols used in plumbing systems.

**Unit IV: Sustainable Plumbing and Drainage Solutions** **No. of Hours: 7**

- A- Green Plumbing Options for Interiors: Introduction to sustainable plumbing techniques such as water conservation, rainwater harvesting, and eco-friendly materials.
- B- Low Impact Development (LID) Techniques: Implementing water-efficient systems and technologies in interior design projects.
- C- Wastewater Treatment and Disposal: Designing and integrating wastewater storage, treatment, and disposal systems in interior projects.
- D- Refuse Collection and Disposal: Systems for managing house refuse, garbage, and waste in interior spaces, including refuse chutes and disposal systems.

**Learning Experience**

This course will be delivered in an experiential and participatory manner, incorporating a mix of lectures, hands-on projects, and collaborative group activities to ensure students gain both theoretical knowledge and practical skills. The teaching methods are designed to make learning interactive, engaging, and relevant to real-world applications.

**Inside Classroom:**

Lectures and Tutorials: Core concepts related to water supply, drainage systems, materials, and sustainable solutions will be introduced through engaging lectures, supported by tutorials for in-depth discussions.

Hands-on Learning and Projects: Assignments will require students to design plumbing layouts for kitchens, bathrooms, and other spaces. This will involve working on technical drawings, selecting materials, and proposing sustainable systems.

Group Work: Collaboration will be encouraged through group activities, where students will work together to solve design challenges, reinforcing teamwork and communication skills

**Outside Classroom:**

Case Studies: Students will observe, and analyze real-life interior design projects, focusing on how plumbing systems are integrated into diverse types of spaces. This approach will provide a bridge between theory and practice, preparing them for industry challenges.

Market Survey: Students will conduct field visits to explore the latest plumbing products and technologies in the market, enhancing their understanding of practical solutions.

**Textbooks**


1. Punmia, B. C., Jain, A. K. and Jain, A. K. (1995). Water Supply Engineering. New Delhi: Laxmi Publications


**Reference Books**


1. Birdie, B. S. (1996). *Water supply and sanitary engineering*. Dhanpat Rai and Sons.
2. National Building Code of India. (2016).
3. Rangwala, S. C. (2005). *Water supply and sanitary engineering*. Charoter Publishing.
4. Sinha, B. P. (n.d.). *Building services and environmental engineering*. Pearson India.
5. Bhattacharya, A. K. (n.d.). *Plumbing and sanitation engineering*. New Age International Publishers.
6. Gupta, M. K. (n.d.). *Green building and sustainable design*. Wiley India.


**Open Educational Resources (OER)**

1. **"Introduction to Plumbing Systems"**
   *SWAYAM (Government of India's Online Learning Platform)*
   *Link:* SWAYAM Introduction to Plumbing Systems
2. **"Sustainable Water Management"**
   *NPTEL (National Programme on Technology Enhanced Learning)*
   *Link:* NPTEL Sustainable Water Management

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks (Theory): -<br>**I) Continuous Assessment (30 Marks)**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/ Assignments and Essays/ Presentations/ Participation/ Case Studies/ Reflective Journals (minimum of five components to be evaluated) | 30 Marks |
| **II) Internal Marks (Theory)-Mid-Term Exam** | 20 Marks |
| **External Marks (Theory): -**<br>End Term Examination | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

| SEC083 | COMPUTER GRAPHICS-III | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 0 | 3 | 3 |
| Category of Course | Skill Enhancement Course (Practical) | | | | | |
| Total Contact Hours | 45 hrs. | | | | | |
| Pre-Requisites/ Co-Requisites | Basics Understanding of computers and design of spaces | | | | | |

**Course Perspective**

The primary objective of this course to empower students to use computers for 2D drafting, 3D modeling, and rendering is crucial for their development as modern designers and architects. It hones their technical skills but also fosters creativity, precision, and professionalism. It also helps to familiarize realistic rendering and presentation techniques using computers.

**Course Outcomes:**

**Upon completion of the course the learner will be:**

**CO1:** Observing the process of tools and Techniques of software application for generating digital drawings and communication.

**CO2:** Imitating the tools and techniques of software applications for accurate drawing creation and Modification.

**CO3:** Practicing the tools and Techniques to master software applications.

**CO4:** Adapting and improving the tools of software applications for generating accurate drawing

**Unit 1: Introduction to Presentation software. No. of Hours: 15**

- **A. Introduction to Adobe suits:** Introducing on presentation software for creating impactful presentations, along with the basics of editing, compositing, design, and rendering to produce professional-quality visuals.

**Unit 2: Introduction to 3D Modelling. No. of Hours: 15**

- **A. Overview of 3D Modelling:** Introduction to 3D Modelling (i.e.3D-max), Getting Started with 3D Modelling Software –installation, setup, user interface, basic navigation,
- **B. Basic 3D Modelling Techniques:** The Techniques of creating, transforming, and modifying shapes, forming the foundation for building and refining 3D models.,
- **C. Advanced 3D Modelling Techniques:** Advance technique on modelling complex objects using modifiers and applying textures to enhance realism and detail.

**Unit 3: Introduction Rendering to 3D Modelling.**

- **A-Basic Rendering Concepts:** The fundamentals of rendering, including understanding lighting, material properties, and camera setup for realistic visuals.
- **B-Introduction to rendering engines (i.e. V-Ray, Cycles, Arnold):** Learn to use rendering engines (V-Ray, Cycles, Arnold) for realistic materials, effective lighting setups, and optimized render settings for high-quality results.

**Learning Experience:**

The learning experience for students with presentation software and 2d drafting software, enhancing skills in drafting, formatting, and architectural presentations through practical projects that bridge software learning with real-world applications. Through hands-on exercises of

software Application, the student will gain confidence in for generating digital drawing and communication.

**Inside Classroom:**

Lectures & Demos: Introduce core tools in MS Office and AutoCAD through live demonstrations, focusing on step-by-step breakdowns of essential functions.

Hands-On Labs: Practice sessions follow each demo, allowing students to apply new skills immediately with instructor support.

**Outside Classroom:**

Independent Practice: Assign tasks like 2D drafts and presentations, reinforced by OER tutorials on AutoCAD and MS Office.

Project Work: Students work on an ongoing cumulative project, developing skills across multiple software tools for mid-term and final assessments.

Online Engagement: Encourage participation in AutoCAD communities and exploration of advanced resources for deeper learning.

**Textbook:**

Textbook not applicable

**Reference Books/Materials:**

1. Bark, S. (2012). An Introduction to Adobe Photoshop. Ventus Publishing ApS, Sheffield.

**Open Educational Resources (OER):**

**Coursera – 3ds Max for Beginners** Free course is designed to introduce beginners to 3ds Max.

**Udemy – 3ds Max: Complete Guide** A detailed course covering a wide range of 3ds Max features and techniques

**Udemy – Photoshop Fundamentals** Beginner to advanced Photoshop techniques

**Evaluation Scheme:**

| **Evaluation Components** | **Weightage** |
|---|---|
| **Internal Marks (Practical): -** | |
| I. Class Involvement | 10 Marks |
| II. Minor assignment | 10 Marks |
| III. Major assignment | 30 Marks |
| **External Marks (Jury): -** | |
| Viva | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

# Semester IV

| ADID252 | INTERIOR DESIGN STUDIO-IV | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 6 | 0 | 8 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 120 | | | | | |
| Pre-Requisites/ Co-Requisites | Basic knowledge of Interior design, Materials, and construction | | | | | |

**Course Perspective:**

This course offers students a comprehensive understanding of retail space design, beginning with an introduction to various types of retail outlets and their specific interior requirements. Through hands-on activities like market surveys and case studies, students will gain practical insights into materials and finishes. The course will guide students in analyzing spatial relationships and developing area plans, ensuring a functional flow within retail environments. Finally, students will apply design standards and develop creative solutions for retail spaces, translating their concepts into detailed, professional plans and presentations.

**Course Outcomes:**

**On completion of the course the learner will be:**

**CO1:** Demonstrating a comprehensive understanding of retail design principles, theories, and materials, focusing on different types of retail outlets and their specific interior design needs.

**CO2:** Applying space planning techniques, material selection, and design standards to create functional and visually appealing retail environments suited to various merchandise types.

**CO3:** Analysing and deconstructing design challenges by evaluating spatial relationships, material finishes, and user flow in retail spaces to develop effective solutions that enhance the shopping experience.

**CO4:** Evaluating retail design projects against industry standards to ensure quality, functionality, and adherence to aesthetic, safety, and sustainability requirements.

**CO5:** Developing original and innovative retail design solutions by experimenting with mood boards, material boards, and creative spatial concepts that address contemporary retail needs.

**CO6:** Exhibiting technical proficiency in producing detailed design plans, elevations, and material boards using design tools and software for accurate visualization and execution of retail spaces.

**Course Content:**

**Unit 1: Introduction to Types of Retail Outlets** **No. of Hours: 30**

- A. Concept of Retail and Retail Types: Understanding the basics of retail, including the purpose and impact of retail design on customer experience.
- B. Classification of Retail Outlets: Exploring types of retail outlets based on merchandise, such as fashion, electronics, grocery, and specialty stores.
- C. Case Study and Market Survey: Conducting case studies of retail spaces and market surveys to discuss materials, finishes, and interior requirements for various retail outlet types.

**Unit 2: Detailed Study of Retail Spaces** **No. of Hours: 30**

- A. Spatial Relationships in Retail Design: Examining the relationship between various areas in retail spaces, such as display zones, circulation paths, and service areas.
- B. Area Development Analysis: Preparing an area development chart to analyze spatial requirements and effective space utilization in retail environments.

**Unit 3: Design Development of Retail space** **No. of Hours: 60**

- Design Standards and Space Planning: Applying design standards and functional considerations in space planning for retail environments.
- Concept Development: Creating a conceptual layout for retail space that aligns with the brand's aesthetic and functional goals.
- Mood Board and Material Board Development: Develop mood and material boards to visually communicate the design theme, material palette, and finishes for the final retail space plan.
- Drawings and Model submission: On scale plans, elevations, sections, details along with 3D renders and model.

**Learning Experience**

This course is designed to be immersive and hands-on, blending theoretical understanding with practical application through a combination of lectures, case studies, and collaborative projects. Students will experience learning through both classroom activities and field-based exploration to build relevant, real-world skills in retail design.

**Inside Classroom**:

Lectures and Tutorials: Foundational concepts of retail design, types of retail outlets, and spatial planning will be introduced through lectures and supplemented by tutorials for deeper exploration of design principles and industry requirements.

Hands-on Learning and Projects: Students will engage in projects that require them to develop area development charts, create conceptual retail layouts, and select materials. This includes preparing mood and material boards to support their design concepts, emphasizing creativity and attention to detail.

Group Work and Collaboration: Collaborative activities will involve students working in teams to analyze spatial relationships and address design challenges. This approach promotes teamwork, problem-solving, and the ability to present and refine ideas collectively.

**Outside Classroom:**

Case Studies: Students will visit real retail spaces to examine and analyze the use of materials, finishes, and design elements. Observing different retail environments will help them understand the practical applications of design theories and how they impact customer experience.

Market Survey: Field visits to material suppliers and showrooms will allow students to explore current materials, fixtures, and finishes. These surveys will familiarize them with the latest trends and products in retail design, enhancing their ability to make informed design decisions.

**Textbooks:**

1. Ching, Francis D. K., “Architecture: Form, Space, and Order”, Wiley and Sons

**Reference Books:**

1. Wallschlaeger, C and Snyder, S.B., “Basic Visual Concepts and Principles for Artists, Architects and Designers”, McGraw Hill.

2. Laseau, P, “Graphic Thinking for Architects and Designers”, John Wiley and Sons

**Open Educational Resources (OER)**

https://nptel.ac.in/
https://swayam.gov.in/

**Evaluation Scheme:**

| **Evaluation Components** | **Weightage** |
|---|---|
| **Internal Marks** | **50** |
| A. Sheets submission | 20 |
| B. Model | 10 |
| C. Mid Term | 20 |
| **External Marks** | **50** |
| C. External Viva | 30 |
| D. End Term Exam | 20 |
| **Total** | **100 Marks** |

(It is mandatory for students to secure 40% marks in Internal & external End term practical exam & external Viva.)

| ADID254 | CONSTRUCTION AND MATERIALS -IV | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 3 | 0 | 3 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 45 | | | | | |
| Pre-Requisites/ Co-Requisites | Basic understanding of materials and drafting skills/ Observation, drawing skills for technical construction materials. | | | | | |

**Course Perspective**

This course offers an in-depth exploration of fundamental building components essential for interior design, with a focus on partitions, paneling, cladding, surface finishes, flooring, and gypsum applications. Students will study diverse partition systems, surface finishing techniques, flooring options, and gypsum products, gaining a comprehensive understanding of material properties, construction methods, and design aesthetics. Through this course, students will develop the skills needed to make informed choices that enhance functionality and visual appeal in contemporary interior spaces.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding and categorizing different types of partitions and panelling materials, including brick, clay, concrete, glass, timber, and gypsum, along with applying them in sustainable design solutions.

**CO2:** Analysing various surface finishes, such as smooth, textured, ribbed, and specialized coatings, while understanding their characteristics, and application methods, and identifying potential defects in plastering and painting processes.

**CO3:** Evaluating different types of flooring materials and finishes, such as brick, cement concrete, stone, terrazzo, ceramic tiles, and wood, to assess their suitability for various design applications and performance requirements.

**CO4:** Demonstrating an understanding of gypsum products, including gypsum boards, suspended ceilings, and gypsum plaster, focusing on their components, jointing, finishing techniques, and practical applications in interior construction.

**Course Content**

**Unit-1: Partitions and Panelling, Cladding** **No. of Hours: 15**

- **A- Introduction to Partitions**: Explain what partitions are and their role in space division and functional organization within buildings. Discuss the factors influencing the choice of partitions, such as sound insulation, fire resistance, aesthetics, and flexibility.
- **B- Types of Partitions:** Characteristics, construction methods, and applications of Brick Partition, Clay and Concrete Partitions, Glass Partitions, Timber Partitions, Gypsum Partitions, Soundproof and Lightweight.
- **C- Panelling:** Overview of glazed, wooden, and other panelling types and Proper methods for installing different types of panelling Partitions (Dry wall cladding and Aluminum Composite Panel Cladding (Sandwich Panel).

*Set of Drawings: Partition Details, Drywall, Aluminium Composite Panel*

**Unit-2: Surface Finishes** **No. of Hours: 15**

- **A- Introduction to Surface Finishes:** Overview of surface finishes in architectural design. Importance of surface finishes in aesthetics and functionality.
- **B- Types of Surface Finishes:** Smooth Finishes, Textured Finishes, Ribbed and Hitched Finishes, Exposed Aggregate Finish, Rough Cast and Dry Dash Finishes, Stucco Finishes, Gypsum and POP Applications
- **C- Plastering Techniques:** Different methods and their applications, Common issues and solutions, Step-by-step application techniques
- **D- Varnishes and Finishes:** Types of Varnish, Methods of Applying Varnish, French Polish, Melamine Finish, and Lacquer Finish

**Unit-3: Floor & Floor Finishes** **No. of Hours: 15**

- **A- Introduction to Flooring:** Definition and Purpose of Flooring, Importance of Floor Finishes in Interior Design.
- **B- Types of Flooring Materials:** Brick Flooring, Cement Concrete Flooring, Stone Flooring, Terrazzo Flooring, Ceramic Tiles, Vitrified Tiles, Wooden Flooring

*Set of Drawings: Flooring drawing showcasing different flooring patterns with annotations on installation requirements*

**Unit-4: Gypsum** **No. of Hours: 15**

- **Introduction to Gypsum:** Definition and Properties of Gypsum, Common applications in interior design and construction (e.g., partitions, ceilings, finishes). Fire resistance, thermal insulation, soundproofing, and ease of installation.
- **B- Gypsum Board (Drywall):** Types of Gypsum Boards- Regular Gypsum Board, Fire-Resistant Gypsum Board, Moisture-Resistant Gypsum Board, Acoustic Gypsum Board. Installation Process (Framework preparation and Fixing gypsum boards to stud systems (metal/wood))
- **C- Suspended Ceilings**: Definition and purpose of suspended ceilings in interior spaces. Types of Suspended Ceilings (Gypsum Board Ceiling and Gypsum Tile Ceiling)
- **D- Gypsum Plaster:** Difference between gypsum plaster and cement-based plaster. Types of Gypsum Plaster - Ready-made gypsum plaster vs. traditional methods AND One-coat plaster vs. multi-coat plaster.

*Set of Drawings: Sections of wall partitions and ceilings using gypsum board (drywall) systems, including framework preparation, fastening methods, and jointing details. Suspended ceiling layout plan with types of suspended ceilings (e.g., Gypsum Board Ceiling, Gypsum Tile Ceiling), highlighting installation methods and material indications.*

**Learning Experience:**

**Inside Classroom:**

Technical Drawing & Detailing: Students practice creating precise construction drawings for partitions, finishes, and flooring, enhancing their ability to visualize and communicate designs effectively.

Material Study & Application: Classroom lectures and interactive sessions introduce students to materials like brick, gypsum, and timber, covering their properties, uses, and installation methods.

Students explore application techniques for various finishes and discuss aesthetic and functional considerations.
Hands-On Studio Practice: Studio sessions offer practical exercises where students create small-scale models and finish boards, gaining direct experience with materials and installation techniques.

**Outside Classroom**
Site Visits & Observations: Visits to construction sites and showrooms allow students to see materials and finishes in real applications, enhancing their understanding of how each element integrates within interior spaces.
Market Research & Surveys: Students conduct market surveys to discover sustainable and innovative material options, build skills in selecting materials based on durability, cost, and environmental impact.
Case Studies & Analysis: Analysing real-world projects helps students connect classroom concepts with practical applications, evaluating material choices and design solutions.

**Open Educational Resources (OER)**
*SWAYAM: Building Materials And Composites*
*LINK: https://onlinecourses.nptel.ac.in/noc22_ar14/preview*

**Reference Books:**

1. Barry, R. (1999). The Construction of Buildings Vol. 2. 5th Ed. New Delhi : East-West Press.
2. Bindra, S.P. and Arora, S.P. (2000). Building Construction: Planning Techniques and Methods of Construction, 19th Ed. New Delhi : Dhanpat Rai Publications.
3. McKay, W. B. (2005). Building Construction Metric Vol. 1–IV, 4th Ed. Mumbai :Orient Longman.
4. Rangwala, S. C. (1963). Building Construction: Materials and types of Construction, 3rd Ed. New York : John Wiley and Sons.
5. Rangwala, S. (2004). Building Construction. 22nd Ed. Anand.: Charotar Pub. House.


**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks (Studio): -<br>IV.**Continuous Assessment**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/Presentations/ Participation/ Case Studies/Internal Jury (minimum of five components to be evaluated)<br>Mid Term Jury | <br><br><br><br>30 Marks<br>20 Marks |
| **External Marks (Studio): -**<br>End Term Examination | <br>50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

| ADID214 | INTERIOR SERVICES-II ELECTRICAL& LIGHTING | L | T | P | C |
|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 0 | 2 |
| Category of Course | Major (Theory) | | | | |
| Total Contact Hours | 30 | | | | |
| Pre-Requisites/ Co-Requisites | Electrical Circuits, Basic physics of optics, Logical thinking | | | | |

**Course Perspective**

The Electrical and Lighting course is essential for developing students' technical competence in interior design, equipping them with the knowledge and skills to design efficient, safe, and aesthetically pleasing electrical and lighting systems. Students will learn how to calculate electrical loads, create lighting schemes, and ensure sustainability by incorporating energy-efficient solutions. The course prepares them for real-world challenges such as designing for residential, commercial, and hospitality spaces, making them highly competent in electrical and lighting design for interior environments. These skills are directly applicable in professional practice, as graduates will be able to deliver integrated design solutions that enhance user comfort, safety, and sustainability.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding the fundamental principles of electrical systems and lighting design and their roles in interior environments.

**CO 2:** Analysing and evaluating electrical systems to design efficient and effective electrical layouts for interior environments.

**CO3:** Applying technical skills to develop detailed electrical and lighting layouts, incorporating space planning and safety standards.

**CO 4:** Evaluating electrical and lighting design solutions through the analysis of electrical load distribution, lighting performance metrics, and design efficiency.

**Course Content**

**Unit I: Introduction to Electrical Systems and Components No. of Hours: 8**

- A- Sources of Electrical Energy Supplied to Buildings: Overview of energy sources (grid power, renewable energy). Electrical supply systems and their components. Comparison of different energy sources (advantages and limitations)
- B- Electricity Generation, Transmission, and Distribution: Basic principles of electricity generation (thermal, hydro, solar, wind). Transmission networks (high voltage transmission lines, substations), Distribution systems (transformers, distribution lines)
- C- Instruments for Measurement and Metering: Types of measurement instruments (voltmeters, ammeters, wattmeters). Techniques for measuring voltage, current, and power. Use of energy meters for consumption tracking

- D- Types of Electrical Wiring Systems and Earthing: Overview of wiring systems (concealed, surface-mounted) and Types of wiring methods (PVC conduits, metal conduits). Earthing techniques (earth rods, earth plates, grounding)
- E- Control Equipment: Switchgear and Safety Devices: Types, functions, and applications of switchgear (circuit breakers, switches, relays). Safety devices (fuses, earth leakage circuit breakers), Installation and maintenance of control equipment. Safety standards and practices

**Unit II: Electrical Supply, Wiring, and Layout** **No. of Hours: 7**

- A- Indian Electricity Rules and NBC Specifications: Overview of Indian Electricity Rules and their relevance to building design. Key specifications from the National Building Code (NBC) related to electrical installations
- B- Electrical Supply and Layout: Principles of electrical supply system design. Electrical distribution boards and service panels. Designing circuits for different loads (lighting, power outlets). Planning for future electrical needs and expansion
- C- Protective Devices in Electrical Installations: Types and functions of protective devices (fuses, miniature circuit breakers, residual current devices)
- D- Building Wiring Systems: Types of wiring systems (single-phase, three-phase). Wiring for light circuits, power circuits, and specialized circuits. Installation practices for different wiring types along with compliance with safety standards and codes
- E- Plug Load Calculation: Methods for calculating plug loads in residential and commercial buildings. Factors influencing plug load calculations (appliance types, usage patterns). Integration of plug load calculations in electrical design

**Unit III: Lighting Design and Integration** **No. of Hours: 8**

- A- Lighting Fundamentals: Basic terms and definitions (lux, lumen, candela). Principles of visual comfort and glare control. Quality of illumination (uniformity, color temperature)
- B- Types of Light Sources: Daylighting, Artificial light sources (incandescent, fluorescent, LED). Characteristics and applications of different lamps and luminaires. Efficiency and lifespan of various light sources
- C- Integration of Electrical Lighting with Daylighting: Strategies for combining natural and artificial lighting. Design considerations for daylight integration. Benefits of solar lighting as a renewable resource. Instruments for Measurement of light.
- D- Lighting Fixtures and Fittings: Types of lighting fixtures (recessed, surface-mounted, pendant). Selection criteria based on application and design. Installation and maintenance of fixtures and fittings. Lumen method for calculation of number of fixtures.
- E- Outdoor and Specialized Lighting: Design principles for outdoor lighting (landscape, security). Designing lighting schemes for different environments: residential, commercial, retail, and hospitality. Specialized lighting for art galleries, museums, and other unique spaces. Case studies and examples of successful lighting schemes.

**Unit IV: Lighting Design Techniques and Schemes** **No. of Hours: 7**

- A- Graphical Symbols for Electrical Systems: Understanding standard symbols for electrical components and using in electrical diagrams and schematics for electrical drawings.

- B- Lighting Control: Techniques for controlling lighting (dimmers, timers, sensors). Integration of lighting controls with building automation systems. Impact on energy efficiency and user comfort
- C- Electrical Layout Plan: Creating detailed electrical layout plans incorporating electrical systems into interior design plans

**Learning Experience**

The Electrical and Lighting course will be delivered through a combination of theoretical instruction and practical application. The teaching methods are designed to create an interactive, engaging, and industry-relevant learning environment. The learning experience includes both inside and outside classroom activities.

**Inside Classroom:**

Lectures and Demonstrations: Key concepts will be introduced through interactive lectures and live demonstrations.

Technology Integration: Students will use software tools for electrical and lighting design, such as CAD programs and lighting simulation software, to create and analyze their designs.

Hands-on Learning: Practical sessions will involve creating electrical layouts, performing load calculations, and developing lighting schemes. Students will work with real-world materials and tools to build their skills.

Group Work and Collaboration: Students will engage in group projects to design electrical and lighting systems for hypothetical or real projects. This will foster teamwork and collaborative problem-solving.

**Outside Classroom:**

Case Studies: Students will examine real-life projects to understand how electrical and lighting systems are integrated into different types of interiors. This will help bridge the gap between theoretical knowledge and practical application, preparing students for professional challenges.

Market Survey: Field visits to electrical suppliers and lighting showrooms will expose students to the latest technologies and products, enhancing their ability to implement practical and innovative design solutions in their work.

**Textbooks**


1. **Koinesberger, O. (1985).** *Architectural Design and Building.* Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
2. 1. Raina K. B. & Bhattacharya S. K. (2007) Electrical Design, Estimating and Costing, New Age International Publishers, New Delhi


**Reference Books**


1. NBC 2016

2. Dagostino, F. R. (1978) Mechanical and Electrical Systems in Construction in Architecture, Reston Publishing Company, Prentice Hill Co., Virginia.

3. Egan, D. M. (1983) Concepts in Architectural Lighting, McGraw Hill Book Company.

4. Flynn, J. E. et. al (1992) Architectural Interior Systems: Lighting, Acoustics and Air conditioning, Van Nostrand Reinhold

5. NBO (1966) Handbook for Building Engineers, National Buildings Organisation, New Delhi.

6. Grondzik, W. T., Kwok, A.G., Stein, B, Reynolds, J. S. (2009) Mechanical and Electrical Equipment for Buildings, Wiley.

**Open Educational Resources (OER)**

1. **"Electrical Power Systems"**
   *NPTEL (National Programme on Technology Enhanced Learning)*
   **Link:** NPTEL Electrical Power Systems
2. **"Introduction to Lighting Design"**
   *NPTEL (National Programme on Technology Enhanced Learning)*
   **Link:** NPTEL Introduction to Lighting Design

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks (Theory): -<br>**I) Continuous Assessment (30 Marks)**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/ Assignments and Essays/ Presentations/ Participation/ Case Studies/ Reflective Journals (minimum of five components to be evaluated) | 30 Marks |
| **II) Internal Marks (Theory)-Mid-Term Exam** | 20 Marks |
| **External Marks (Theory): -**<br>End Term Examination | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

# Semester V

| ADID351 | INTERIOR DESIGN STUDIO-V | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version- 1.0 | | 2 | 0 | 6 | 0 | 8 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 120 | | | | | |
| Pre-Requisites/ Co-Requisites | Basic understanding of materials and drafting skills/ Observation, drawing skills for technical construction materials. | | | | | |

**Course Perspective:**

This course provides a deep exploration into the adaptive reuse of historical and abandoned buildings, guiding students through a comprehensive process of understanding and applying design solutions. It begins with an in-depth literature review to familiarize students with key theories and precedents, followed by practical case studies that examine functional, aesthetic, and structural aspects of existing buildings. Students will then conduct detailed site analyses, delving into the history, architectural style, and reasons for abandonment. Finally, the course emphasizes creative problem-solving through the development of design proposals that prioritize sustainability, compatibility with existing structures, and practical functionality.

**Course Outcomes:**

**On completion of the course the learner will be:**

**CO1:** Demonstrating a comprehensive understanding of theories, concepts, and precedents related to adaptive reuse of historical and abandoned buildings through in-depth literature review and analysis.

**CO2:** Applying practical, functional, and aesthetic design principles to analyse buildings, including assessing the interior environment, structural integrity, and lighting, and evaluating services such as HVAC, plumbing, and electrical systems.

**CO3:** Analysing and deconstructing the historical and architectural significance of sites by conducting detailed site research, examining construction details, architectural style, and reasons for abandonment to inform adaptive reuse strategies.

**CO4:** Evaluating design proposals against industry standards for adaptive reuse to ensure they meet criteria for quality, safety, sustainability, and compatibility with existing structures.

**CO5:** Developing original and innovative design solutions for adaptive reuse projects by experimenting with design strategies, sustainable practices, and creative adaptation techniques to enhance existing structures.

**CO6:** Exhibiting technical proficiency in producing comprehensive design proposals, including detailed sheets, 3D views, and two-dimensional drawings to effectively communicate construction systems, materials, and design solutions.

**Course Content:**

**Unit 1: Introduction to Adaptive Reuse** **No. of Hours: 24**

- A. Fundamentals of Adaptive Reuse: Understanding the concept, significance, and benefits of adaptive reuse in architecture, particularly for historical and abandoned buildings.
- B. Theoretical Foundations: Exploring key theories and principles guiding adaptive reuse, such as sustainability, preservation of cultural heritage, and urban revitalization.

- C. Overview of Global and Local Precedents: Reviewing influential projects and precedents in adaptive reuse to understand various approaches and their impact on communities and heritage conservation.

**Unit 2: Literature Review and Case Studies** **No. of Hours: 24**

- Literature Review on Adaptive Reuse Strategies: Conducting an in-depth review of literature focused on adaptive reuse methodologies, materials, and building technologies.
- Case Studies in Adaptive Reuse: Analysing selected case studies that demonstrate practical, functional, and aesthetic approaches to adaptive reuse in historical and abandoned sites.

**Unit 3: Site Analysis and Assessment** **No. of Hours: 16**

- A. Historical and Architectural Significance: Researching the original purpose, construction details, and architectural style of the selected site.
- B. Analysis of Existing Conditions: Assessing the site's structural integrity, interior environment, and lighting, as well as understanding reasons for abandonment to inform design decisions.
- C. Services and Material Compatibility: Evaluating existing materials and building services (HVAC, plumbing, electrical systems) to determine compatibility with proposed adaptive reuse strategies.

**Unit 4: Design Development and Documentation** **No. of Hours: 48**

- A. Design Solution Proposal: Developing a comprehensive design solution for adaptive reuse that includes considerations for functionality, aesthetics, and sustainability.
- B. Detailed Drawings and Documentation: Preparing submission-quality design drawings, including plans, elevations, sections, and detailed drawings to showcase construction systems and materials.
- C. 3D Visualization: Creating 3D views to effectively communicate the adaptive reuse concept and spatial qualities.
- D. Presentation and Evaluation: Finalizing design portfolios with detailed documentation and visualizations, ensuring alignment with adaptive reuse principles and compliance with quality, safety, and sustainability standards.

**Learning Experience:**

This course provides an immersive and hands-on learning experience, blending theoretical understanding with practical application through structured classroom activities and field-based exploration. Students will learn through a combination of lectures, case studies, and collaborative projects, building relevant skills in adaptive reuse for historical and abandoned buildings.

**Inside Classroom:**

Lectures and Theory Discussions: Core concepts of adaptive reuse, including sustainability, heritage preservation, and urban revitalization, will be introduced through interactive lectures and discussions.

Case Study Analysis: Students will participate in in-depth case study discussions, analyzing successful adaptive reuse projects to understand practical applications of theory in real-world contexts.
Hands-on Design Projects: Students will work on projects that require site analysis, structural assessment, and the development of design proposals, engaging in tasks such as creating area development charts and selecting materials and services.
Collaborative Group Work: Group activities will encourage students to collaborate on analyzing spatial relationships, design challenges, and adaptive reuse strategies, fostering teamwork, problem-solving, and presentation skills.

**Outside Classroom:**

Site Visits and Analysis: Students will conduct site visits to assess existing conditions, structural integrity, and architectural details of historical and abandoned buildings. These visits will allow students to gather firsthand information and bridge theory with hands-on observation.

**Textbooks:**

1. Time-saver Standards for Interior Design and Space Planning
2. Interior Design Reference Manual, Book by David Kent Ballast

**Reference Books:**

1. Wallschlaeger, C and Snyder, S.B., "Basic Visual Concepts and Principles for Artists, Architects and Designers", McGraw Hill.
2. Laseau, P, "Graphic Thinking For Architects and Designers", John Wiley and Sons

**Open Educational Resources (OER)**

https://nptel.ac.in/
https://swayam.gov.in/

**Evaluation Scheme**

| Evaluation Components | Weightage |
|---|---|
| **Internal Marks** | **50** |
| A. Sheets submission | 20 |
| B. Model | 10 |
| C. Mid Term | 20 |
| **External Marks** | **50** |
| E. External Viva | 30 |
| F. End Term Exam | 20 |
| **Total** | **100 Marks** |

(It is mandatory for students to secure 40% marks in Internal & external End term practical exam & external Viva.)

| ADID353 | CONSTRUCTION AND MATERIALS -V | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 3 | 0 | 3 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 6 | | | | | |
| Pre-Requisites/ Co-Requisites | Advanced understanding of materials and drafting skills/ Observation, drawing skills for technical construction materials. | | | | | |

**Course Perspective**

This course provides an in-depth understanding of modern door, window, and glazing systems in interior construction, focusing on joinery, fixing details, and material usage. Students will explore advanced glazing techniques, including structural, curtain wall, and spider glazing, through case studies and practical drawings. The course equips learners with essential technical skills for designing and detailing interior architectural elements.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding various types of doors and their components, including hardware, joinery, and materials such as metal, glass, aluminium, PVC, and uPVC in modern applications.

**CO2:** Analysing window and ventilator types and installation techniques by classifying design and material, and evaluating hardware, joinery, and fixing methods essential to construction.

**CO3:** Applying structural and aesthetic glazing concepts, focusing on curtain wall systems (Unitized & Stick) and analysing joinery and fixing details in structural, curtain wall, and spider glazing.

**CO4:** Conducting case studies on structural glazing, curtain walls, and spider glazing systems, preparing reports that illustrate real-world applications of glazing techniques, joinery, and fixing methods.

**Course Content**

**Unite 1: Doors** **No. of Hours: 15**

- A- Definition and Purpose of Doors: Basic functions of doors in buildings, including security, privacy, and aesthetics.
- B- Types of Doors Based on Usage: Revolving Doors, Swing Doors, Rolling Shutter Doors, Collapsible Doors (Features, functionality, and common applications, construction details, and uses)
- C- Door Joinery and Fixing Techniques: Traditional and modern techniques used in the construction of doors, best practices for fixing doors to walls, floors, and frames, ensuring structural stability and functionality.
- D- Materials Used in Door Construction: Metal Doors, Glass Doors, Aluminium Doors, PVC & uPVC Doors, Fire-Rated and Precast Doors (Properties, advantages, common use, cost-effectiveness, and ease of installation).

*Set of Drawings: Detailed technical drawings showcasing types of doors, joinery, and fixing details.*

**Unit-II. Windows and Ventilators** **No. of Hours: 15**

- A- Introduction to Windows and Ventilators: Ventilation, natural lighting, and aesthetic value in interiors. Definitions of terms like casement, sliding, ventilators, etc.
- B- Types of Windows Based on Make: Sliding Windows, Bay Windows, Fixed Windows, Louvered Windows (Construction details, materials used, and applications in modern spaces).
- C- Window Joinery and Fixing Techniques: Different methods used for wood, metal, and PVC windows. Installation processes and techniques for ensuring durability and efficiency in window fittings.
- D- Materials Used in Window Construction: Steel Windows, Glass Windows, Aluminum Windows, UPVC Windows and Doors (Strength, durability, and common applications in industrial and modern buildings.

*Set of Drawings: Detailed construction drawings of different window and ventilator types.*

**Unit-III. Structural Glazing, Curtain Wall & Spider Glazing** **12HRS**

- A- Introduction to Structural Glazing: Overview of structural glazing and its role in creating modern building façades. Energy efficiency, natural lighting, and modern aesthetics.
- B- Curtain Wall Glazing: Pre-fabricated units, construction details, and applications. Site-assembled systems, their components, and typical uses. Comparison between unitized and stick glazing systems in terms of cost, construction time, and maintenance.
- C- Spider Glazing: Definition and description of the frameless glass façade system. Overview of spider fittings, glass panels, and structural supports. Use of spider glazing in high-end commercial spaces and its aesthetic appeal.
- D- Joinery and Fixing Techniques for Glazing Systems: Construction methods for joining glass panels to the support structures. Installation details for different types of glazing systems (e.g., curtain wall, spider glazing).

*Set of Drawings: Detailed construction drawings of Structural Glazing and Spider Glazing.*

**Learning Experience:**

**Inside Classroom:**

Lectures and Demonstrations: Core concepts of doors, windows, and glazing systems will be introduced through interactive lectures and live demonstrations, covering materials, joinery, and installation techniques.

Hands-on Learning: Practical sessions will involve crafting detailed technical drawings, performing material analyses, and examining joinery and fixing methods. Students will work directly with sample materials and hardware to build hands-on expertise.

**Outside Classroom:**

Site Visits: Field visits to construction sites or material showrooms will allow students to observe material applications, joinery techniques, and installation methods in action, deepening their understanding of real-world architectural detailing.

Market Survey: Students will explore local suppliers and showrooms to study current materials, fixtures, and hardware, gaining insight into innovative products and practical considerations that support effective architectural design solutions.

**Open Educational Resources (OER)**

*SWAYAM: Building Materials And Composites*

*LINK: https://onlinecourses.nptel.ac.in/noc22_ar14/preview*

**Reference Books:**


1. Barry, R. (1999). The Construction of Buildings Vol. 2. 5th Ed. New Delhi : East-West Press.
2. Bindra, S.P. and Arora, S.P. (2000). Building Construction: Planning Techniques and Methods of Construction, 19th Ed. New Delhi : Dhanpat Rai Publications.
3. McKay, W. B. (2005). Building Construction Metric Vol. 1–IV, 4th Ed. Mumbai :Orient Longman.
4. Rangwala, S. C. (1963). Building Construction: Materials and types of Construction, 3rd Ed. New York : John Wiley and Sons.
5. Rangwala, S. (2004). Building Construction. 22nd Ed. Anand.: Charotar Pub. House.


**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks (Studio): -<br>I. **Continuous Assessment**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/Presentations/ Participation/ Case Studies/Internal Jury (minimum of five components to be evaluated)<br>Mid Term Jury | <br><br><br><br>50 Marks<br>30 Marks |
| **External Marks (Studio): -**<br>End Term Examination | <br>50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

| ADID355 | FURNITURE DESIGN STUDIO-I | L | T | P | S | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 4 | 0 | 2 |
| Category of Course | Major (Practical) | | | | | |
| Total Contact Hours | 60 | | | | | |
| Pre-requisites/ Co-requisites | Basic understanding of Ergonomics | | | | | |

**Course Perspective**

This course covers the evolution of furniture design, exploring historical transformations, key designers, and movements. It examines functional design principles, materials, aesthetics, structure, and costing. The course also addresses different furniture types, their purposes, and common manufacturing techniques. Emphasis is placed on integrating space planning, ergonomics, and universal design principles in furniture creation.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding the historical transformations, designers, and movements in furniture design

**CO2:** Applying various parameters of furniture design and requirements of selection of appropriate materials.

**CO3:** Analyzing different types of furniture and their suitability for various interior purposes and styles.

**CO4:** Evaluating the cost-effectiveness of furniture designs by evaluating materials, construction methods, and overall design efficiency.

**CO5:** Creating innovative furniture pieces by comprehensive study of space planning, ergonomic principles, and universal design concepts.

**Course Content**

**Unit I: Exploring Furniture History and Styles** **No. of Hours: 12**

- **A - Stylistic Transformation and Influential Designs**: Study of iconic furniture styles and designers across history. Students will create visual mood boards to represent different styles and movements.
- **B - Understanding Furniture in Context**: Analyze how furniture reflects social conditions, technological progress, and design principles over time. Students will present findings through a short presentation on a selected era.
- **C - Mini Prototype Creation**: Based on historical influences, students will design and build a simple prototype that incorporates elements from a specific furniture style.

**Unit II: Functional Furniture Design Basics** **No. of Hours: 12**

- **A - Designing for Function and Comfort**: Introduction to functional design principles, focusing on usability and comfort in furniture. Students will sketch furniture concepts focusing on function.
- **B - Material Exploration and Selection**: Hands-on sessions with materials like wood, metal, and plastic. Students will experiment by creating small samples to understand properties like texture, durability, and flexibility.
- **C - Creating a Small Furniture Piece**: Each student will design and construct a small, functional furniture item (such as a stool or side table) using a chosen material, considering function, aesthetics, and structure.

**Unit III: Furniture Production and Ergonomic Design** **No. of Hours: 12**

- **A - Understanding Manufacturing Processes**: Introduction to basic manufacturing processes such as wood joinery, metal bending, and sheet work. A workshop demonstration will show each technique.
- **B - Ergonomics in Furniture Design**: Understanding the basics of ergonomics and human factors in furniture. Students will measure and design a seating prototype tailored to ergonomic principles.
- **C - Final Project - Functional Furniture Prototype**: Each student will design and produce a functional furniture prototype that demonstrates an understanding of material, ergonomic principles, and a manufacturing technique.

**Text Books:**

1. Bradley Quinn, Mid-Century Modern: Interiors, Furniture, Design Details, Conran Octopus Interiors, 2006.

**Reference Books:**

1. Time-Saver Standards for Architectural Design Data
2. Architectural Standard Ernst Peter Neufert Architects Data
3. Time-Saver Standards for Building Types
4. Stuart Lawson, "Furniture Design: An Introduction to Development, Materials and Manufacturing", Laurence King Publishing, 2013.

**Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination**

**Examination Scheme:**

| **Evaluation Components** | **Weightage** |
|---|---|
| **Internal Marks (Practical): -** | |
| II. Prototype | 10 Marks |
| III. Furniture | 10 Marks |
| IV. Participation | 10 Marks |
| IV. Final Project | 20 Marks |
| **External Marks (Jury): -** | |
| Viva | 50 Marks |

| ADID357 | VISUAL DISPLAY-I | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 4 | 0 | 4 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 60 | | | | | |
| Pre-Requisites/ Co-Requisites | Basic Understanding of Interior Design | | | | | |

**Course Perspective**

This course on visual art in retail interior design examines how art significantly influences both the aesthetic appeal and functional design of retail environments, directly impacting brand identity and customer engagement. Through understanding and applying visual art principles, students will explore the role of art in crafting memorable, brand-aligned retail spaces that not only enhance customer experience but also drive customer behaviour. With a balance of theoretical insights and practical applications, the course equips students to create innovative, art-integrated retail interiors that seamlessly blend brand storytelling with purposeful design, effectively shaping the identity and atmosphere of retail spaces.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1.** Demonstrating a comprehensive understanding of art, theories, and materials in the context of visual art.

**CO2.** Applying space planning, colour theory, and ergonomics to create functional and aesthetically pleasing Visuals of retail shops.

**CO3.** Analysing challenges by evaluating spatial dynamics, material performance, and sustainability to develop effective solutions.

**CO4.** Evaluating visual art projects as per standards to ensure quality, safety, and sustainability.

**CO5.** Developing original and innovative design solutions through experimentation with new materials and technologies.

**CO6.** Exhibiting technical proficiency in using design tools and software for accurate drafting, modelling, and visualization.

**Course Content**

**UNIT 1: Introduction to Visual Art in Interior Design: No. of Hours: 12**

- A- Understanding Visual Art in Retail Spaces**:** Exploring the significance of visual art in enhancing both aesthetics and functionality in retail environments.
- B- Historical Overview of Visual Art in Interior Spaces**:** Examining how art has evolved in interior spaces, focusing on its impact on branding and customer experience.
- C- Communicating Brand Identity through Art**:** How visual art can reflect and strengthen a retail brand's identity.
- D- Enhancing Customer Experience with Art**:** Investigating how art influences customer interaction and perception in a retail space.

**UNIT B: Role of Colour in Retail Shops** **No. of Hours: 12**

- A- Fundamentals of Colour Theory: Understanding the primary principles of colour, including the colour wheel and harmonies.
- B- Colour Psychology and Consumer Behaviour: Exploring how different colours affect consumer mood, perception, and purchasing behaviour.
- C- Creating Colour Palettes for Retail Spaces: Techniques for selecting and applying cohesive colour schemes to enhance store atmosphere.
- D- Colour as a Branding Tool: Using color to reinforce brand identity and influence customer loyalty.

**UNIT C: Materials, Textures & Lighting in Retail Space** **No. of Hours:12**

Various materials such as wood, glass, metal, fabric, and other mediums to enhance retail environments. How to balance these types of lighting to highlight art and guide customer movement

- A- Types of Materials in Retail Design: A study of common materials used in retail spaces, such as wood, glass, metal, and fabric.
- B- Texture and Its Role in Retail Design: Understanding how different textures influence the sensory experience and visual interest in a retail environment.
- C- Lighting Design in Retail Spaces: Examining types of lighting (ambient, task, accent) and how they affect visual art and customer experience.
- D- Balancing Materials, Textures, and Lighting**:** Integrating materials and lighting to create harmonious and visually appealing retail environments.

**UNIT D: Using Art to Define Retail Space** **No. of Hours: 24**

Techniques for integrating art into the physical layout of a retail store.

- Art as a Focal Point in Store Layout: Techniques for positioning art as a central element in retail design to attract attention and enhance the shopping experience.
- Integrating Art with Spatial Design**:** How to incorporate artwork into the physical flow and layout of a retail store to optimize customer movement.
- Art and Functional Design: The dual role of art in both aesthetic and functional aspects of retail design, such as wayfinding or section delineation.
- Custom Art for Retail Spaces: Collaborating with artists to develop custom pieces that align with the store's brand and spatial needs.

**Learning Experience**

**Inside Classroom:**

Lectures and Case Discussions: Core principles of visual art in retail design will be taught through lectures and case-based discussions, exploring how art, color, and material choices shape brand identity and customer perception.

Practical Demonstrations: In-class sessions will feature live demonstrations, showing effective integration of color theory, textures, and lighting to create cohesive and engaging retail spaces.

Technical Exercises: Students will work on technical drawing exercises, developing layouts and visualizations that incorporate art as a functional element. They'll also practice using design software to refine their design skills in digital modeling and visualization.

**Outside Classroom:**

Field Visits: Students will visit retail spaces, galleries, or showrooms to analyze real-world applications of visual art and branding in retail design, observing customer interaction and spatial layout.

Case Studies and Brand Analysis: Students will conduct case studies of existing stores, evaluating how visual art elements reinforce brand identity and influence customer behavior.

Art and Material Exploration: Market surveys and showroom visits will give students firsthand exposure to various materials, textures, and artwork, enabling them to select and recommend options that best support their retail design concepts.

**Textbooks:**

Ching, Francis D. K., "Architecture: Form, Space, and Order", Wiley and Sons

**Reference Books:**

Wallschlaeger, C and Snyder, S.B., "Basic Visual Concepts and Principles for Artists, Architects and Designers", McGraw Hill.

**Open Educational Resources (OER): NA**

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| **1. Internal Marks** | |
| **A. Continuous Assessment (30 Marks)**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/ Assignments and Essays/ Presentations/ Participation/ Case Studies/ Reflective Journals (minimum of five components to be evaluated) Mid-Term | 20 |
| **B. Internal Marks** | 30 |
| **2. External Marks** | **50** |
| **Total** | **100 Marks** |

(It is mandatory for students to secure 40% marks in Internal & external End term practical exam & external Viva.)

| ADID311 | INTERIOR SERVICES-III<br>ACOUSTIC & FIREFIGHTING | L | T | S | P | C |
|---|---|---|---|---|---|---|
| **Version** | **1.0** | **2** | **0** | **0** | **0** | **2** |
| **Category of Course** | **Major (Theory)** | | | | | |
| **Total Contact Hours** | **30** | | | | | |
| **Pre-Requisites/<br>Co-Requisites** | **Basic Physics of sound and sound waves,<br>Logical thinking** | | | | | |

**Course Perspective**

This course emphasizes the integration of acoustics and fire safety within interior environments. It will equip students with the knowledge and skills necessary to create spaces that are not only aesthetically pleasing but also functional and safe. Understanding the science behind acoustics and firefighting services is crucial for addressing user comfort and safety in design. This course prepares students for professional challenges, ensuring they can design responsibly with a focus on human well-being, ethical practices, and sustainability.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding the fundamental principles of building acoustics and firefighting systems.
**CO 2:** Applying acoustic and firefighting design principles to create effective and safe interiors.
**CO 3:** Developing technical drawings and layouts that incorporate acoustic and fire protection systems.

**Course Content**

**Unit I: Fundamentals of Acoustics** **No. of Hours: 8**

- A- Introduction to Acoustics: Basic terminology, sound, and distance (inverse square law), absorption of sound, sound absorption coefficient.
- B- Reverberation Time: Sabine's formula, various sound-absorbing materials.
- C- Behaviour of Sound: Acoustical defects in enclosed spaces.
- D- Noise Types: Outdoor and indoor noise, airborne noise, structure-borne noise, impact noise. Noise Control strategies at neighborhood levels. Sound insulation and noise control materials.

**Unit II: Acoustical Design for Interior Spaces** **No. of Hours: 6**

- **A-** Acoustic Design for Spaces: Design principles for halls used for drama, music, speech, cinema theatres, and open-air theatres.
- B- Acoustical Materials: Selection of acoustic materials and construction measures for noise control, including sound insulation techniques.

**Unit III: Firefighting Systems and Interior Fire Safety Design** **No. of Hours: 8**

- A- Causes of Fire: Understanding causes of fire in interior spaces such as residential and commercial buildings, focusing on common hazards like electrical systems, furnishings, and materials. Characteristics of combustible and non-combustible materials.

- B- Fire Safety Regulations in Interior Design: Key fire safety regulations from the NBC relevant to interior spaces, including grading of interior structural elements for fire resistance, classification of interior layouts, and building types.
- C- Fire Zoning in Interior Spaces: Concept of fire zoning within interior layouts, ensuring safe compartmentalization of rooms and spaces to slow fire spread. Compartmentation techniques to prevent fire spread within buildings (e.g., in multi-story residential and commercial interiors). Pressurization systems for stairwells and corridors to control smoke movement in interiors.
- D- Fire Exit and Escape Route Design: Application of standards for interior design of doorways, stairways, passages, and corridors to facilitate safe evacuation during fires.

**Unit IV: Fire Protection Techniques** **No. of Hours: 8**

- A- Fire-Resistant Materials for Interiors: Introduction to fire-resistant materials used in interior design, such as gypsum boards, fire-rated doors, and treated textiles. Emphasis on fire-resistant ratings and selection criteria for interior finishes and furnishings.
- B- Fire Protection Systems in Interiors: Placement and types of extinguishers suitable for interior environments like homes, offices, and commercial spaces. Integration of sprinkler systems, smoke vents, and hydrants within interior spaces, with emphasis on concealed installations to maintain aesthetic appeal while ensuring functionality.
- C- Fire Detection and Alarm Systems in Interior Design: Incorporation of automatic fire detection and alarm systems into interior layouts, ensuring minimal visual disruption while maintaining fire safety standards.

**Learning Experience**

This course on Acoustic and Firefighting Systems offers a comprehensive, experiential learning environment, combining theoretical knowledge with practical applications. The teaching approach is designed to ensure students gain a thorough understanding of both acoustics and fire safety, essential for creating functional and safe interior spaces. Instruction Methods and Activities:

**Inside Classroom:**
Lectures and Tutorials: Core principles of acoustics, noise control, fire safety systems, and fire protection will be covered through engaging lectures, followed by tutorials for in-depth exploration and problem-solving.
Hands-on Learning and Projects: Students will work on designing acoustic layouts for various interior spaces, applying fire safety regulations, and developing compartmentation strategies. They will also produce technical drawings for integrating fire protection systems and acoustic treatments.
Group Work: Collaborative group activities will challenge students to solve real-world design problems related to acoustics and fire safety, fostering teamwork, critical thinking, and communication skills.
**Outside Classroom:**
Case Studies: Students will analyze case studies of existing buildings, understanding how acoustical and firefighting systems are implemented to enhance user safety and comfort.

Field Visits: Students will visit commercial or public spaces to observe the application of acoustic treatments and fire safety measures. These visits will help connect theoretical concepts to real-world implementations.
Market Survey: Students will conduct surveys to research modern acoustic materials and fire safety equipment, helping them stay updated with industry trends and practical solutions for interior environments.

**Textbooks**


1. **Mishra, R.S.** (2015). *Fundamentals of Fire Safety*. New Delhi: S. Chand Publishing.
2. **Bhatia, A.** (2014). *Architectural Acoustics: A Guide for Designers and Engineers*. New Delhi: Rajkamal Prakashan.


**Reference Books**


1. Koenigsberger, O.H., Ingersoll, T.G., Mayhew, A., & Szokolay, S.V. (2010). Manual of Tropical Housing and Building (Reprint ed.). Hyderabad: Universities Press (India) Pvt. Ltd.
2. **National Building Code of India 2016**. (2016). *Bureau of Indian Standards*. New Delhi: BIS.
3. **Sane, S.N., & Gandhi, B.K.** (2012). *Fire Safety in Buildings: Indian Perspective*. Pune: Tech-Max Publications.
4. **Khan, A.** (2020). *Designing Fire Safety in Residential Buildings*. New Delhi: McGraw Hill Education (India).
5. **Central Public Works Department (CPWD)**. (2019). *Fire Safety Manual*. New Delhi: CPWD.
6. **National Fire Protection Code of India 2016**. (2016). *Bureau of Indian Standards*. New Delhi: BIS.
7. **IS 1641: Code of Practice for Fire Safety of Buildings (General): General Principles of Fire Grading and Classification**. (1988). *Bureau of Indian Standards*.
8. **Fire Safety Design in Buildings Handbook**. (2015). *Indian Green Building Council (IGBC)*.


**Open Educational Resources (OER)**

1. **National Fire Protection Association (NFPA) India**
2. **IIT Kharagpur – NPTEL Course on Fire Safety and Building Design**
3. **CPWD Publications – Fire Safety Guidelines**

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks (Theory): -<br>**A. Continuous Assessment (30 Marks)**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/ Assignments and Essays/ Presentations/ Participation/ Case Studies/ Reflective Journals (minimum of five components to be evaluated) | 30 Marks |
| **II) Internal Marks (Theory)-Mid-Term Exam** | 20 Marks |
| **External Marks (Theory): -**<br>End Term Examination | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

| SIID001 | EVALUATION OF SUMMER INTERNSHIP | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 0 | 0 | 2 |
| Category of Course | INTERNSHIP | | | | | |
| Total Contact Hours | NA | | | | | |
| Pre-Requisites/ Co-Requisites | Basic understanding of materials and drafting skills/ Observation, drawing skills | | | | | |

**Course Perspective:**

This course bridges theoretical knowledge with practical application, offering students a hands-on experience in an architect's or interior designer's office. Students will engage directly with industry challenges, enhancing their communication and analytical skills while learning essential design processes.

By collaborating with experienced professionals, students will gain insights into various design techniques and project management principles. The course also emphasizes portfolio development, enabling students to showcase their ability to create construction drawings and fabrication presentations, essential for establishing their credentials in the interior design field. Overall, the training fosters personal growth and professional readiness, equipping students for successful careers in interior design.

**Course Outcomes:**

**On completion of the course the learner will be:**

CO1: Understanding and articulating professional practice principles by defining and describing the roles and responsibilities of interior designers within the industry.

CO2: Applying project management techniques by utilizing effective planning, scheduling, and communication strategies in real-world interior design projects.

CO3: Analyzing and evaluating project challenges by assessing design solutions based on time constraints, budget considerations, and client needs.

CO4: Creating comprehensive training reports by documenting experiences and insights gained during practical training, including technical drawings, observations, and analyses of design methodologies.

**Course Content:**

The 21-day/ 4 weeks office training program immerses students in the practical realities of working within an architect's or interior designer's office, preparing them for the demands of the profession. During this period, students will engage in various aspects of the design process, including:

A. **Design Development**: Understanding the stages of developing design concepts from initial ideas to finalized plans.
B. **Working Drawings**: Creating and interpreting technical drawings that convey essential details for construction.

C. **Presentation and Fabrication Drawings**: Developing clear visual representations of design proposals for client presentations and fabrication processes.
D. **Site Visits**: Participating in site evaluations to understand the contextual factors influencing design decisions.
E. **Client and Consultant Meetings**: Engaging in professional interactions to develop communication and negotiation skills.

**Reporting Requirements**

Each student is required to maintain a **Monthly Log** documenting their activities, learnings, and reflections throughout the training period. This log should highlight key experiences, challenges faced, and skills acquired during their time at the firm.

The **Joining Report** must be submitted at the start of the training, detailing the firm's background, the nature of projects undertaken, and the specific role of the student within the team.

After the training, students must obtain a **Completion Certificate** from the firm, verifying their participation and outlining the scope of work completed.

The **Training Report/ Portfolio** produced by each student will document their learning experience, incorporating:

- **Drawings and Observations**: Collecting various technical and graphic data related to design, structure, construction methods, and material use encountered during the training.
- **Building Study**: Conducting a critical appraisal of a significant building designed and supervised by the host firm, analyzing its architectural merits and design process.
- **Building Material Study**: Investigating contemporary building materials, detailing their characteristics and applications in real-world projects.
- **Detailing Study**: Exploring the intricate details of a selected design element or feature implemented by the firm, enhancing the understanding of practical design execution.

This course is designed to provide a comprehensive overview of the interior design profession and equip students with the essential skills and knowledge needed for successful careers in the field.

**Learning Experience**

The **Evaluation of Summer Internship** course provides an immersive learning experience within a professional setting, allowing students to engage deeply with the intricacies of the interior design field. During the 21-day internship, students collaborate closely with experienced architects and designers, participating actively in the design process from concept development to project execution. This hands-on training includes tasks such as preparing working and presentation drawings, conducting site evaluations, and participating in client and consultant meetings, which enhance their understanding of project management and communication strategies. By facing real-world challenges and learning to navigate the dynamics of a professional environment, students develop essential skills that prepare them for successful careers in interior design, fostering both professional growth and personal confidence in their abilities.

**Evaluation Scheme:**

| Evaluation Components | Weightage (%) |
|---|---|
| **Internal marks (Internal)**<br>• **Report/ Portfolio Evaluation** | **(50)** |
| **External Marks (External)**<br>• **Viva Voce (External)** | **(50)** |
| **Total** | **100** |

# Semester VI

| ADID352 | INTERIOR DESIGN STUDIO-VI | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version- 1.0 | | 2 | 0 | 6 | 0 | 8 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 120 | | | | | |
| Pre-Requisites/ Co-Requisites | Basic knowledge of Interior design, Materials, and construction | | | | | |

**Course Perspective:**

This course provides students with a deep understanding of design principles specifically tailored to large-scale institutional and commercial projects. It begins by focusing on the fundamentals of design, emphasizing the balance of functionality, aesthetics, and user experience in large spaces. Students will then move into design development, where they will create detailed concepts and custom design elements that address real-world challenges. The course culminates with the production of comprehensive working design sets, equipping students with the practical skills necessary to bring their concepts to life and prepare them for professional design execution.

**Course Outcomes:**

**On completion of the course the learner will be:**

**CO1:** Demonstrating a comprehensive understanding of design principles, theories, and concepts within the context of large-scale institutional and commercial projects.

**CO2:** Applying space planning, design elements, and user experience considerations to develop functional and aesthetically cohesive interior spaces for institutional and commercial environments.

**CO3:** Analysing and deconstructing complex design challenges by evaluating spatial relationships, material choices, and technical requirements to create effective and sustainable design solutions.

**CO4:** Evaluating large-scale design projects against industry standards, ensuring compliance with safety regulations, functionality, and sustainability goals.

**CO5:** Developing original and innovative design solutions for institutional and commercial spaces through experimentation with advanced design methodologies, materials, and technologies.

**CO6:** Exhibiting technical proficiency in producing complete working design sets, utilizing design software and tools for accurate drafting, 3D modelling, and visual representation.

**Course Content:**

**Unit 1: Fundamentals of Large-Scale Design** **No. of Hours: 16**

- A. Design Principles and Elements: Understanding the principles and elements of design specific to large-scale institutional and commercial projects, with emphasis on functionality, aesthetics, and user experience.
- B. Spatial Requirements: Exploring the unique spatial requirements for institutional and commercial environments, including the balance between design impact and usability.
- C. Introduction to Retail Design: Overview of retail concepts and various types of retail outlets categorized by merchandise, layout, and customer engagement strategies.

**Unit 2: Design Development** **No. of Hours: 32**

- A. Conceptual Development: Generating design concepts tailored for institutional and commercial spaces, focusing on translating theory into practical, creative solutions.
- B. Detailed Design Process: Working on in-depth drawings and custom design elements, showcasing the ability to address real-world challenges with innovative solutions.
- C. Application of Design Principles: Applying core design principles in a project format to create cohesive, functional, and visually appealing spaces that meet client and user expectations.

**Unit 3: Detailed Working Design Set** **No. of Hours: 56**

- A. Comprehensive Design Documentation: Producing a complete set of working drawings, including plans, elevations, sections, and detailed specifications to ensure the design is executable and aligned with industry standards.
- B. Technical Detailing: Focusing on technical aspects such as materials, finishes, and construction details to facilitate practical implementation.
- C. Execution Readiness: Ensuring the design's feasibility with a clear, well-documented plan that meets functionality and aesthetic objectives.

**Learning Experience:**

This course provides an immersive and hands-on learning experience, seamlessly blending theoretical understanding with practical application through structured classroom activities and project-based exploration. Students will develop relevant skills in designing large-scale institutional and commercial projects through a combination of lectures, case studies, and collaborative design work.

Inside Classroom:

Lectures and Theory Discussions: Core concepts of large-scale design will be introduced through interactive lectures, focusing on principles of functionality, aesthetics, and user experience in institutional and commercial settings.

Case Study Analysis: Students will engage in in-depth discussions of successful large-scale design projects, analyzing how theoretical concepts are applied in real-world contexts.

Hands-on Design Projects: Students will work on projects that involve developing design concepts, producing detailed drawings, and creating specifications, allowing them to apply their theoretical knowledge in practical scenarios.

Collaborative Group Work: Group activities will promote collaboration among students as they tackle design challenges, analyze spatial relationships, and develop innovative solutions, enhancing teamwork and problem-solving skills.

Outside Classroom:

Site Visits and Analysis: Students will conduct site visits to large-scale institutional and commercial projects, assessing existing conditions and design elements. These visits will provide firsthand insights and experiences, bridging the gap between theory and practical application in real-world settings.

**Textbooks:**

1. Francis.D. Ching & Corky Bingelli, Interior Design Illustrated, 2nd edition, Wiley Publishers, 2004
2. Time-Saver Standards for Building Types

3. Architectural Standard Ernst Peter Neufert Architects Data
4. Time-Saver Standards for Architectural Design Data

**Reference Books**

1. Karlen Mark, Space planning Basics, Van Nostrand Reinhold, New York, 1992.
2. Joseph D Chiara, Julius Panero, & Martin Zelnick, Time Saver standards for Interior Design & space planning, 2nd edition, McGraw Hill Professional, 2001.

**Open Educational Resources (OER)**

https://nptel.ac.in/ **https://www.coursera.org/browse/arts-and-humanities/architecture**
**https://scholar.google.com/**

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| **Internal Marks** | **50** |
| A. Sheets submission | 20 |
| B. Model | 10 |
| C. Mid Term | 20 |
| **External Marks** | **50** |
| G. External Viva | 30 |
| H. End Term Exam | 20 |
| **Total** | **100 Marks** |

(It is mandatory for students to secure 40% marks in Internal & external End term practical exam & external Viva.)

| ADID356 | FURNITURE DESIGN STUDIO-II | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 0 | 4 | 2 |
| Category of Course | Major (Practical) | | | | | |
| Total Contact Hours | 60 | | | | | |
| Pre-requisites/ Co-requisites | Furniture Design basics | | | | | |

**Course Perspective**

This course examines emerging trends in furniture design, with a focus on innovative approaches and material applications. It emphasizes practical design development, catering to diverse market needs, and considers cost-effective solutions for various consumer segments.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding the principles and trends of modular furniture design, including material applications and cost considerations.

**CO2:** Applying knowledge of modular systems and materials to develop functional and innovative furniture design

**CO3:** Analyzing furniture design strategies for inclusivity, ensuring that designs are accessible and affordable across different income groups.

**CO4:** Creating furniture design layouts addressing the needs of diverse consumer groups.

**Course Content**

**Unit I: Futuristic Trends in Modular Furniture** **No. of Hours: 12**

- A - Introduction to Modular Furniture Design: Overview of modular furniture concepts, focusing on flexibility, adaptability, and modern aesthetics. Students will sketch and create initial design ideas for modular systems.
- B - Market Survey of Modular Systems: Students will conduct a survey of modular systems available in the market, analyzing designs, functions, and applications across residential and commercial sectors.
- C - Prototype Development: Based on their survey and research, students will design and build a simple modular furniture prototype, demonstrating joinery and assembly techniques.

**Unit II: Futuristic Materials in Furniture Design** **No. of Hours: 12**

- A - Exploration of Materials: Introduction to wood, metal, glass, plastics, and FRP as materials for innovative furniture design. Students will handle material samples and examine their properties and potential applications.
- B - Material Combinations and Applications: Hands-on experimentation with combining different materials to achieve structural and aesthetic balance. Students will create small sample pieces to understand the interactions between materials.
- C - Cost Analysis and Budgeting: Understanding cost criteria in furniture design. Students will complete a cost analysis for a selected furniture concept, comparing material options to achieve a balanced budget.

**Unit III: Design Development for Practical Applications** No. of Hours: 12

- **A - Designing for Varied Income Groups**: Introduction to furniture needs in living spaces, education, healthcare, and public spaces, with a focus on affordability and accessibility for middle- and lower-income groups.
- B - Full-Scale Furniture Design and Construction: Students will design a full-scale furniture piece for a selected sector (retail or corporate) and prepare detailed construction drawings.
- C - Final Construction Project: Students will create a final full-scale prototype of their furniture design, applying principles learned in materials, modularity, and cost-effectiveness to meet the needs of their target group.

**Text Books:**

1. Bradley Quinn, Mid-Century Modern: Interiors, Furniture, Design Details, Conran Octopus Interiors, 2006.

**Reference Books:**

1. Time-Saver Standards for Architectural Design Data
2. Architectural Standard Ernst Peter Neufert Architects Data
3. Time-Saver Standards for Building Types
4. Stuart Lawson, "Furniture Design: An Introduction to Development, Materials and Manufacturing", Laurence King Publishing, 2013.

**Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination**

**Examination Scheme:**

**Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination**

**Examination Scheme:**

| **Evaluation Components** | **Weightage** |
|---|---|
| **Internal Marks (Practical): -** | |
| III. Prototype | 10 Marks |
| IV. Furniture | 10 Marks |
| V. Participation | 10 Marks |
| V. Final Project | 20 Marks |
| **External Marks (Jury): -** | |
| Viva | 50 Marks |

(It is mandatory for students to secure 40% marks in Internal & external End term practical exam & external Viva.)

| ADID356 | VISUAL DISPLAY-II | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 0 | 4 | 2 |
| Category of Course | Major (Practical) | | | | | |
| Total Contact Hours | 60 | | | | | |
| Pre-requisites/ Co-requisites | Basic knowledge of Interior design, Materials, and construction | | | | | |

**Course Perspective**

The course on transient and impermanent spaces in museum design offers interior design students a unique perspective on creating dynamic environments that enhance visitor experiences. By understanding the significance of transient spaces, students will learn to design areas that facilitate movement, engagement, and interaction within exhibitions.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1.** Demonstrating a thorough understanding of art, design theories, and materials within the context of visual art.

**CO2.** Applying space planning, colour theory, and ergonomic principles to design functional and aesthetically appealing retail environments.

**CO3.** Analysing challenges by assessing spatial dynamics, material performance, and sustainability to create effective design solutions.

**CO4.** Assessing visual art projects against established standards to ensure quality, safety, and sustainability.

**CO5.** Creating innovative and original design solutions by experimenting with new materials and emerging technologies.

**CO6.** Showcasing technical expertise in utilizing design tools and software for precise drafting, modelling, and visualization.

**Course Content**

**UNIT 1: Introduction to Transient/ Impermanent Spaces No. of Hours: 15**

Understanding transient spaces and their importance in museums and exhibitions. Exploring how these spaces facilitate movement, engagement, and interaction within a larger context.

- A- Definition of Transient Spaces: Understanding the concept of impermanent spaces and their role in design.
- B- Historical Perspective on Transient Spaces: How transient spaces have evolved in museums and exhibitions.
- C- Functions and Importance of Transient Spaces in Museums: How these spaces support movement, engagement, and storytelling.
- D- Challenges in Designing Transient Spaces: Addressing constraints of space, time, and flexibility.

**UNIT B: Suggestive Spaces in Museum Design No. Of Hours: 15**

Understanding how to design museum spaces that evoke curiosity and enhance storytelling. Techniques for creating engaging display galleries that highlight art and artefacts effectively.

- A- Creating Spaces that Evoke Curiosity: Techniques for designing environments that stimulate visitor intrigue.
- B- Balancing Functionality and Aesthetic in Museum Design: Merging practical needs with artistic expression in museum layouts.
- C- Spatial Hierarchy in Museums: Organizing spaces to create a natural progression for the visitor journey.
- D- Designing Display Galleries: Techniques for showcasing art and artifacts while maintaining a cohesive design.

- **UNIT C: Visitor Engagement in Transient Spaces No. Of Hours: 30**

Incorporating interactive elements that encourage visitor participation and engagement Designing transient spaces that guide visitors intuitively through exhibitions.

- A- Incorporating Interactive Elements in Design: How to design spaces that invite active participation from visitors.
- B- Technology and Visitor Engagement: Using digital media, touchscreens, and other technologies to enhance engagement.
- C- Way finding and Navigation in Transient Spaces: Designing intuitive layouts that guide visitors seamlessly through exhibitions.
- D- Creating Dynamic Spaces: Designing adaptable environments that can change based on exhibition needs.
- E- Evaluating Visitor Experience: Techniques for assessing how effectively a space engages and interacts with its audience.

**Learning Experience**

**Inside Classroom:**

Lectures and Interactive Discussions: Core concepts of transient and impermanent spaces will be introduced through lectures and discussions, examining how these spaces enhance movement, storytelling, and visitor engagement in museums and exhibitions.

Case Studies and Design Exercises: Students will analyze case studies of renowned museum spaces to explore the techniques used in facilitating visitor flow and interaction. They will engage in design exercises focused on creating layouts that support curiosity and immersion, as well as crafting interactive elements that encourage audience engagement.

Practical Layout and Display Projects: Hands-on activities will include creating spatial layouts and designing interactive displays, enabling students to apply theoretical knowledge to practical scenarios that elevate the visitor experience.

**Outside Classroom:**

Museum and Exhibition Visits: Field visits to local museums and exhibitions will allow students to observe transient and impermanent spaces in action, providing insight into how these designs influence visitor movement and interaction.

Interactive Element Analysis: Students will analyze the use of interactive elements and sensory experiences in real-world exhibits, evaluating how these components support storytelling and audience engagement.

**Textbooks:**

Ching, Francis D. K., "Architecture: Form, Space, and Order", Wiley and Sons

**Reference Books:**

Wallschlaeger, C and Snyder, S.B., "Basic Visual Concepts and Principles for Artists, Architects and Designers", McGraw Hill.

**Open Educational Resources (OER): NA**

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| **1. Internal Marks** | |
| **A. Continuous Assessment (30 Marks)**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/ Assignments and Essays/ Presentations/ Participation/ Case Studies/ Reflective Journals (minimum of five components to be evaluated) Mid Term | 20 |
| **B. Internal Marks** | 30 |
| **2. External Marks** | **50** |
| **Total** | **100 Marks** |

(It is mandatory for students to secure 40% marks in Internal & external End term practical exam & external Viva.)

| ADID312 | INTERIOR SERVICES-IV HVAC & MECHANICAL SERVICES | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 0 | 0 | 2 |
| Category of Course | Major (Theory) | | | | | |
| Total Contact Hours | 30 | | | | | |
| Pre-Requisites/ Co-Requisites | Logical thinking and implementation in design | | | | | |

**Course Perspective**

This course equips students with essential knowledge of HVAC and mechanical systems for interior spaces. By mastering these concepts, students will design comfortable, functional interiors that integrate mechanical systems effectively. The course will equip students with practical knowledge of ventilation, air conditioning, and mechanical systems, ensuring their ability to apply these services to both residential and commercial interiors. They will learn to collaborate with engineers, address real-world challenges, and incorporate energy conservation, air quality, and mechanical layouts, making them valuable in the interior design industry.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding the fundamental principles of HVAC and mechanical services

**CO 2:** Applying HVAC and mechanical service systems effectively in residential and commercial interior design projects, ensuring comfort and functionality.

**CO 3:** Analysing the placement and integration of HVAC equipment, duct systems, and mechanical services in residential and commercial interiors.

**CO 4:** Demonstrating proficiency in selecting and placing HVAC and mechanical equipment, considering architectural and environmental requirements for different interior projects.

**Course Content**

**Unit I: HVAC Systems and Human Comfort** **No. of Hours: 8**

- A- Human Comfort in Interiors: Human comfort conditions and the need for mechanical ventilation in buildings. Ventilation rates for different occupancies and methods of mechanical ventilation.
- B- Introduction to air conditioning: Principles, indoor air quality, Carnot cycle, refrigeration cycle, and refrigerants.
- C- Considerations for air-conditioned buildings: How HVAC systems affect interior layouts, spatial zoning, and design.
- D- Air distribution systems: Ductwork, air outlets, and HVAC equipment (compressors, condensers, evaporators).

**Unit II: Air Conditioning Methods and Equipment** **No. of Hours: 8**

- A- Types of air conditioning Equipment: Window units, split units, ductable systems, and package systems. Central air-conditioning systems such as AC plants, all-air systems, chilled water systems, air handling units (AHUs), and fan coil units (FCUs).
- B- Architectural Integration: Architectural requirements for placing HVAC equipment in buildings. Introduction to 'Clean Rooms' and their needs.

**Unit III: Elevators and Escalators** **No. of Hours: 7**

- A- Introduction to Vertical Transportation in Interiors: History and types of elevators (traction, hydraulic, capsule, hospital, and goods elevators).
- B- Elevator Components and Layout Considerations: Components of lifts, passenger cars, door arrangements, and lobbies, with a focus on aesthetic and functional considerations. Location, spatial requirements, and standards for elevator installations.
- C- Overview of escalators and travelators: Design, operation, and spatial integration into interior spaces.

**Unit IV: Working and Installation of Lifts and Escalators** **No. of Hours: 7**

- Industry standards and capacity calculations for elevators and escalators: Installation provisions, spatial requirements, and integration into interior designs.
- Working and operation of lifts: Working and operation of lifts, parts of lifts, and architectural design implications. Integration of elevator systems into interior layouts, including lift lobbies and passenger cars.
- Escalator systems: Design, Parts, and operational requirements, focusing on spatial placement and user accessibility within interiors.

**Learning Experience**

The HVAC and Mechanical Systems course offers a blend of theoretical knowledge and practical application, providing students with the essential skills to design comfortable and functional interiors. The course structure encourages experiential learning through various methods to ensure students can apply HVAC and mechanical systems effectively in both residential and commercial spaces. Instruction Methods and Activities:

**Inside Classroom:**

Lectures and Tutorials: Core concepts such as HVAC principles, air conditioning systems, and mechanical services will be introduced through detailed lectures. Hands-on Learning and Projects: Students will develop HVAC layouts, mechanical equipment placements, and ventilation designs for different interior environments. They will work on technical drawings and perform load calculations, enhancing their practical understanding of HVAC systems.
Group Work: Collaborative group activities will involve designing HVAC and mechanical layouts for hypothetical projects, and fostering teamwork, communication, and problem-solving skills.
Outside Classroom:
Case Studies: Real-world case studies will help students understand how HVAC and mechanical systems are applied in different types of interior projects, bridging the gap between theory and practice.
Field Visits: Students will visit commercial and residential buildings to observe the placement and integration of HVAC systems. These visits will offer practical insights into real-world applications of mechanical systems in interiors.
Market Survey: Students will conduct field research to explore the latest HVAC technologies, equipment, and sustainable solutions, enhancing their ability to integrate innovative systems into their design projects.

**Textbooks**

1. C.P. Arora, *Refrigeration and Air Conditioning* (2010).

**Reference Books**


1. Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE) Handbook.
2. National Building Code of India 2016 – Part 8, Building Services.
3. NBC 2016 – Part 4: Fire and Life Safety.


**Open Educational Resources (OER)**

HVAC and Building Services-related tutorials and guidelines from ISHRAE.

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks (Theory): -<br>**I) Continuous Assessment (30 Marks)**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/ Assignments and Essays/ Presentations/ Participation/ Case Studies/ Reflective Journals (minimum of five components to be evaluated) | 30 Marks |
| **II) Internal Marks (Theory)-Mid-Term Exam** | 20 Marks |
| **External Marks (Theory): -**<br>End Term Examination | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

| ADID314 | INTERIOR PROJECT ESTIMATION | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 0 | 0 | 2 |
| Category of Course | Major (Theory) | | | | | |
| Total Contact Hours | 30 hrs | | | | | |
| Pre-Requisites/ Co-Requisites | Basics Mathematics | | | | | |

**Course Perspective**

This course Interior Project Estimation: aims to equip students with the essential skills required for estimating and managing project costs in various interior design projects. It will enable students to draft precise and professional specifications for materials and finishes, ensuring clarity and accuracy in documentation. By enhancing their ability to analyze market rates, supplier contracts, and service quotations, students will gain practical knowledge of cost evaluation. Additionally, the course will familiarize them with legal aspects such as contracts, tenders, and relevant documentation, preparing them to navigate the financial and regulatory complexities of interior design projects with confidence.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding the principles of budgeting and cost control methods in interior design projects.

**CO2:** Applying basic estimation techniques to calculate costs for materials, labor, and overheads in real-world interior design scenarios.

**CO3:** Analyzing various types of materials and their specifications, and assessing their suitability and cost-effectiveness for different interior design applications.

**CO4:** Evaluating and applying budgeting principles and cost control methods to optimize project expenditures while maintaining design quality.

**Course Content**

**Unit 1: Introduction to Estimation and Costing** **No. of Hours: 7**

- A-Basic Terms and Terminology: Definition and importance of estimation and costing in interior design, document listing all the quantities of materials, parts, and labor needed for a project.
- B- Classification of costs: Direct and indirect costs. The cost of raw materials such as wood, fabric, paint, etc. Wages paid to workers directly involved in the project (e.g., carpenters, electricians, plumbers). Costs associated with tools and machinery used specifically for the project. Administrative Costs: Salaries of non-technical staff, office supplies, and software used in designing or planning.
- C- Methods of estimation: How to calculate and manage project costs in interior design and construction projects. It covers different methods of estimation, their applications, and their importance in the budgeting and planning process.

**Unit-2 Material Specification and Costing** **No. of Hours: 7**

- Understanding materials used in interior design: Comprehensive understanding of the materials used in interior design, focusing on their specifications and associated costs. Explore how material choices impact the overall aesthetics, functionality, and sustainability of a design project.
- Specification: Writing detailed specifications for materials, finishes, and furnishings. It delves into the detailed process of defining the characteristics, quality, and performance of various materials used in interior spaces. It emphasizes the importance of clear communication between designers, contractors, and clients, ensuring that all stakeholders are aligned on material expectations and applications.
- Market analysis: This unit will introduce the students to methods of calculating and estimating costs for various materials, taking into account factors such as transportation, installation, and maintenance costs.
- Techniques for material cost estimation: Explore various methods and strategies used to accurately estimate the cost of materials in interior design projects. Introduce different approaches, such as unit cost estimation, rate analysis, and comparative costing, helping students gain practical insights into calculating expenses for materials like wood, tiles, metal, fabrics, and other design essentials.
- Material Selection: Sustainable and cost-effective material selection. Evaluate materials based on their lifecycle, durability, environmental footprint, and cost, ensuring they meet both aesthetic and functional requirements while staying within budget constraints. The aim is to equip students with the skills to choose sustainable materials that reduce negative environmental impacts without compromising quality or design.

**Unit-3 Budgeting, Rate Analysis, and Cost Control** **No. of Hours: 8**

- A- Budget preparation and management for interior projects: budget preparation and management specifically tailored for interior projects. Students will learn how to estimate costs effectively, allocate resources, and manage finances to ensure the project stays within the predetermined budget. Additionally, cost control techniques will be explored, teaching students how to monitor and adjust the budget during the project to account for any unforeseen changes, ensuring financial sustainability.
- B-Cost control methods: Practical exercises and case studies, students will develop skills in forecasting costs, analysing financial reports, and implementing corrective actions to ensure projects remain within budget. Students will be equipped with the knowledge to make informed financial decisions and contribute to the economic viability of their design projects.
- C-Value engineering: Balancing cost and quality. Through practical exercises and case studies, students learn to apply various value engineering techniques, such as function analysis, cost-benefit analysis, and creative brainstorming, to real-world scenarios in interior design.

**Unit 4: Legal Considerations and Contracts** **No. of Hours: 8**

- A- Legal aspects of estimation: Contracts, tenders, and agreements. Understanding various types of contracts, tenders, and agreements that govern the professional landscape. Students

will learn to differentiate between different contract forms—such as fixed-price, cost-plus, and time and materials contracts—and their implications for project estimation and management.

- B- Types of contracts: lump sum, item rate, and turnkey contracts. A lump sum contract involves a single fixed price for the entirety of the project, providing certainty in budgeting. Item rate contract, on the other hand, breaks down costs based on specific items or tasks, allowing for flexibility in pricing as project scopes change. Understanding these contract types is crucial for interior design students to navigate legal obligations, manage risks, and ensure successful project delivery.
- C- Tender documentation: Bid preparation and submission process. The process of preparing and presenting formal bids for a project, outlining all necessary details to ensure compliance and clarity. It includes specifications, drawings, and conditions required for contractors to submit their proposals.
- D- Practical exercises on project estimation: The essential legal aspects of project management within the interior design field. Students will explore contract types, key legal terminology, and the implications of legal agreements. Practical exercises will emphasize project estimation, allowing students to apply theoretical knowledge to real-world scenarios.
- E- Technical Tools for Cost Estimation: various software applications, tools, and methodologies used for budgeting and cost control in interior design projects. It might include hands-on training with specific software, data analysis techniques, and case studies for practical application.

**Learning Experience:**

The Interior Project Estimation course provides students with practical skills in cost management, budgeting, and material selection for interior projects, preparing them to handle both residential and commercial spaces. With a focus on experiential learning, the course combines theory with real-world applications to bridge creative design and project management.

**Inside Classroom:**

Lectures and Tutorials

Core Concepts: Students will learn foundational principles of project estimation, cost management, and budgeting. Lectures will cover essential topics, such as rate analysis, material cost breakdown, and specification drafting.

Interactive Discussions: Tutorials will encourage students to discuss and explore these concepts, facilitating a deeper understanding of how to approach project costing and balance budget constraints with design quality.

Hands-on Learning and Projects

Practical Estimation Exercises: Students will practice creating cost estimates, developing detailed budget sheets, and drafting professional specifications for hypothetical projects.

Group Work: Collaborative Budgeting Projects: In teams, students will design cost-effective project estimates for hypothetical interior spaces, fostering teamwork, critical thinking, and communication skills.

Mock Client Exercises: Groups will present their budget plans and cost analysis to the class, simulating client interactions to enhance their presentation and negotiation skills.

**Outside Classroom:**

Case Studies: Real-World Estimation Scenarios: Students will study actual interior projects to understand how budget estimation, cost management, and material choices are handled professionally.
Field Visits: Site Inspections: Visits to active project sites will allow students to observe cost estimation in action, and understand how materials, labor, and budgeting decisions come together in real-world settings.
Material Supplier Visits: Touring local supplier facilities will provide insights into the current market rates for materials, exposing students to cost variances and availability factors that impact project budgets.
Market Survey: Research on Industry Pricing and Trends: Students will conduct surveys to gather information on new materials, cost-saving alternatives, and sustainable options.

**Textbooks**


1. Dutta, B. N. (2003) Estimating and Costing, UBS Publishers
2. Kohli, D.D and Kohli, R.C. (2004) A Text Book of Estimating and Costing, S.Chand & Company Ltd.


**Reference Books**


1. (2004) Standard Handbook for Civil Engineers, McGraw-Hill
2. Standard Schedule of Rates for Delhi, CPWD & UPPWD.
3. Standard Specifications, CPWD & UPPWD
4. National Building Code of India (Latest Edition), Bureau of Indian Standards.


**Open Educational Resources (OER)**

*NPTEL: MANAGEMENT ACCOUNTING*
*LINK: https://archive.nptel.ac.in/courses/110/107/110107127/*

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks (Theory): -<br>I.**Continuous Assessment (30 Marks)**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/ Assignments and Essays/ Presentations/ Participation/ Case Studies/ Reflective Journals (minimum of five components to be evaluated) | 30 Marks |
| **II) Internal Marks (Theory)-Mid-Term Exam** | 20 Marks |
| **External Marks (Theory): -**<br>End Term Examination | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

| ADID342 | VASTU SHASTRA | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 0 | 0 | 2 |
| Category of Course | Major (Theory) | | | | | |
| Total Contact Hours | 30 hrs | | | | | |
| Pre-Requisites/ Co-Requisites | Basics Understanding of Design and Spatial Planning | | | | | |

**Course Perspective**

The primary objective of this course a traditional knowledge system is to provide interior design students with a comprehensive understanding of Vastu Shastra principles and their application in residential and commercial interior design. By integrating ancient wisdom with modern design practices, students will learn to create harmonious and balanced living and working environments that promote well-being and prosperity**.**

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1.** Understanding the historical background and cultural significance of Vastu Shastra.
**CO2.** Applying the concept and Principle of Vastu Shastra
**CO3.** Analyzing various types of layout and space planning strategies for various spaces in alignment with Vastu Shastra.
**CO4.** Identifying various Vastu defects and Vastu Remedies used and in various spaces alignment with Vastu Shastra.
**CO5.** Creating space plans and Strategies for various spaces alignment with Vastu Shastra.

**Course Content**

**UNIT I: Introduction and Basic Principles of Vastu Shastra No. of Hours: 7**

- A- Introduction: Vastu Shastra Historical Background and Cultural Significance of Vastu Shastra
- B- Five Elements (Pancha Bhutas): Earth, Water, Fire, Air, and Space
- C- Direction and Attribute: Their Significance: North, South, East, West, and their Sub-Directions and attribute.

**UNIT II: Site Selection Planning and Mandala No. of Hours: 7**

- A- Selecting a Vastu Compliant Site: Shape, Slope, and Surroundings
- B- Orientation: Vastu compass, Orientation of the Building: Placement and Orientation Based on Directions. Vastu and Energy Flow: Concepts of Positive and Negative Energies
- C- Vastu Purusha Mandala: Understanding the Vastu Grid and Its Significance i.e. Vastu-Planets Relationship, etc.

**UNIT III: Layout and Space Planning for Interior Spaces No. of Hours: 8**

- A- Entrance: Ideal Placement for the Main Entrance with 32 directions
- B- Ideal Locations Room Placement: Living Room, Bedrooms, Kitchen, Bathrooms, and Pooja Room Open Spaces: Courtyards, Balconies, and Verandas Main Entrance and its significance

- C- Avoidances Room Placement: Living Room, Bedrooms, Kitchen, Bathrooms, and Pooja Room Open Spaces: Courtyards, Balconies, and Verandas.

**UNIT IV: Remedies, Corrections, & Practical Applications No. of Hours: 8**

- A- Common Vastu Doshas (Defects): Common Vastu Doshas can disrupt harmony in spaces. Identify issues like entrance placement and bedroom location, and then implement solutions to restore balance and positive energy flow.
- B- Use of Vastu Remedies: Mirrors, crystals, colors, and Yantras enhance energy flow and harmony in spaces, promoting positivity and balance.
- C- Identifying and Correcting Vastu Defects: Case Studies, Practical Solutions, Advanced Vastu Remedies: Use of Advanced Yantras, Mantras, Space Clearing Techniques

**Learning Experience:**

The Vastu Shastra course will be delivered through a combination of theoretical instruction and practical application. The teaching methods are designed to create an interactive, engaging, and culturally relevant learning environment. The learning experience includes both inside and outside classroom activities.

**Inside Classroom:**

Lectures and Discussions: Key concepts will be introduced through interactive lectures that cover the historical background, principles, and significance of Vastu Shastra. Engaging discussions will encourage critical thinking and deeper understanding.

Hands-on Activities: Students will participate in practical exercises focused on layout planning and space organization according to Vastu principles, allowing them to apply their knowledge directly.

Group Projects: Collaborative projects will enable students to design Vastu-compliant spaces, fostering teamwork and enhancing problem-solving skills as they address real-world challenges.

**Outside Classroom:**

Site Visits: Students will visit various residential and commercial spaces to assess Vastu compliance and identify defects. This hands-on experience will help bridge the gap between theory and practice.

Case Studies: Analysis of real-life projects will provide insights into the application of Vastu Shastra in modern design, helping students understand how to integrate traditional principles into contemporary environments.

**Textbooks**

1. "Vastu Shastra: The Ancient Indian Science of Architecture" by B. B. Puri
2. "The Complete Guide to Vastu Shastra" by Dr. V. Ganapati Sthapati
3. "Vastu: Transcendental Home Design in Harmony with Nature" by Vibhuti Chakrabarti

**Reference Books**

1. Vastu Shastra: For a Healthy, Prosperous, and Happy Life" by Ashwini Kumar
2. "MahaVastu: The Door to Easy Living" by Khushdeep Bansal
3. "The Vastu Vidya Handbook" by Juliet Pegrum

4. "Vastu Shastra: Design Theory and Application for Everyday Living" by Ashwini Kumar
5. "The Vastu Workbook: Using the Subtle Energies of the Indian Art of Placement to Enhance Health, Prosperity, and Happiness in Your Home" by Talavane Krishna
6. "Vastu Shastra and Feng Shui: The Science of Architecture and Interior Design" by Shiv Kumar
7. "Applied Vastu Shastra in Modern Architecture" by S.N. Sinha
8. "Vastu Shastra for Homes, Offices & Factories" by Dr. B. B. Puri.
9. "Vastu: The Indian Art of Placement" by Rohit Arya

**Open Educational Resources (OER)**

1. https://www.youtube.com/watch?v=tcLsUQHQ2i8&list=PLInoldgdxxquPvtQIpEvZlghnn6HQ098J
2. Udemy: Vastu Shastra for Beginners: An Introductory Course
3. Vedic Vastu Course (Online Self-Study) offered by Vedic Vaani

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks (Theory): -<br>**I) Continuous Assessment (30 Marks)**<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/ Assignments and Essays/ Presentations/ Participation/ Case Studies/ Reflective Journals (minimum of five components to be evaluated) | 30 Marks |
| **II) Internal Marks (Theory)-Mid-Term Exam** | 20 Marks |
| **External Marks (Theory): -**<br>End Term Examination | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

# Semester VII

| ADID451 | INTERIOR DESIGN THESIS | | L | T | S | P | C |
|---|---|---|---|---|---|---|---|
| Version | 1.0 | | 2 | 0 | 10 | 0 | 12 |
| Category of Course | | Major (Studio) | | | | | |
| Total Contact Hours | | 180 | | | | | |
| Pre-Requisites/ Co-Requisites | | Design Understanding, Building Services, Materials and construction techniques | | | | | |

**Course Perspective:**

This Interior Design thesis course guides students through advanced research and application of design principles. Students will explore theories, develop functional and aesthetically pleasing environments, and address design challenges by analysing spatial dynamics and sustainability. The course emphasizes evaluating projects against industry standards and culminates in detailed design documentation by preparing Thesis report and portfolio including floor plans and 3D renderings, showcasing technical proficiency and innovative solutions.

**Course Outcomes:**

**On completion of the course the learner will be:**

**CO1:** Demonstrating a comprehensive understanding of advanced design theories and methodologies in interior design through in-depth research and analysis.

**CO2:** Applying research analysis to develop cohesive and functional interior environments that address specific project requirements and user needs.

**CO3:** Analysing and deconstructing complex design challenges by evaluating spatial dynamics, material performance, and sustainability factors to propose effective and innovative design solutions.

**CO4:** Evaluating interior design projects against established industry standards to ensure they meet quality, safety, and sustainability criteria and align with professional practices.

**CO5:** Developing original and creative interior design solutions by experimenting with new materials, technologies, and design strategies, showcasing both innovation and practical application.

**CO6:** Exhibiting technical proficiency in producing detailed design documentation, including floor plans, elevations, and 3D renderings, using design tools and software to effectively communicate and realize the thesis project.

**Course Content:**

**Unit 1: Literature Review and Background Study** **No. of Hours: 36**

- A. **Comprehensive Literature Review**: Conducting an in-depth review of existing research, theories, and methodologies relevant to the selected thesis topic.
- B. **Background Study and Contextual Analysis**: Analyzing case studies and precedents to understand the topic's broader context, informing the project's conceptual foundation.
- C. **Project Concept Development**: Synthesizing research findings to develop and refine a cohesive project concept, setting a clear direction for the design process.

**Unit 2: Design Development** **No. of Hours: 48**

- **A. Conceptual Exploration**: Developing initial design concepts through mood boards, sketches, and preliminary models to explore and define the project's aesthetic and functional goals.
- **B. Design Refinement**: Finalizing the design direction, and creating detailed floor plans, elevations, and sections to represent spatial layout and functionality.
- **C. 3D Modelling and Renderings**: Starting work on 3D models and renderings to visually communicate the evolving design and support iterative refinements.

**Unit 3: Detailed Working Design Set and Thesis Report No. of Hours: 84**

- **A. Final Design Solution**: Completing and finalizing the design solution with a focus on meeting project requirements, user needs, and innovative use of materials and space.
- **B. Technical Documentation**: Producing comprehensive design documentation, including working drawings, floor plans, detailed sections, elevations, and technical specifications for execution.
- **C. 3D Models and Visualizations**: Creating advanced 3D renderings and models that effectively represent the final design, ensuring alignment with thesis objectives.
- **D. Thesis Report Preparation**: Developing a detailed written report that includes research background, design process, methodologies, and rationale, providing a complete narrative of the thesis project.
- **E. Design Presentation and Critique**: Preparing for a formal presentation of the thesis, including design boards, models, renderings, and documentation, to convey the project comprehensively and respond to critiques.

**Learning Experience:**
This course offers a comprehensive and immersive learning experience that prepares students to tackle advanced design challenges in the field of interior design. By integrating theoretical knowledge with practical application, students will develop the necessary skills to conduct thorough research, refine their design concepts, and produce professional-quality design documentation. The course emphasizes critical thinking, creativity, and collaboration, ensuring that students are well-equipped to address real-world design needs upon completion.

**Inside Classroom:**
Lectures and Tutorials: Core concepts of advanced interior design, such as design theories, methodologies, and the role of research in developing cohesive project concepts, will be explored through interactive lectures and tutorials.
Hands-on Design Development: Students will engage in practical exercises, working on mood boards, sketches, and detailed drawings to shape and refine their design concepts. They will create comprehensive floor plans, elevations, and 3D models, applying their research to bring design ideas to life.

Group Collaboration and Peer Review: Collaborative activities will encourage students to work together in analyzing complex design challenges, enhancing skills in teamwork, critical thinking, and communication. Peer reviews will provide opportunities for constructive feedback, allowing students to refine their designs with input from their classmates.

**Outside Classroom:**

Case Studies: Students will analyze relevant case studies, focusing on real-world applications of design principles, spatial dynamics, and sustainability factors in institutional and commercial projects. This analysis will provide insight into practical design solutions and inform their thesis work.

Site Visits and Field Research: Visits to completed design projects and relevant sites will enable students to observe firsthand the execution of design theories, material choices, and sustainability practices. These experiences will bridge theoretical learning with practical, on-site understanding, enhancing their ability to apply research to design.

**Textbooks:**

1. Francis.D. Ching & Corky Bingelli, Interior Design Illustrated,2nd edition, Wiley Publishers, 2004
2. Time-Saver Standards for Building Types
3. Architectural Standard Ernst Peter Neufert Architects Data
4. Time-Saver Standards for Architectural Design Data

**Reference Books:**

1. Karlen Mark, Space planning Basics, Van Nostrand Reinhold, New York, 1992.
2. Joseph D Chiara, Julius Panero, & Martin Zelnick, Time Saver standards for Interior Design & space planning, 2nd edition, Mc-Graw Hill professional, 2001.

**Open Educational Resources (OER)**

https://www.researchprospect.com/how-to-write-dissertation-literature-review/
https://www.scribbr.co.uk/thesis-dissertation/literature-review/

**Evaluation Scheme:**

| Evaluation Components | Weightage (%) |
|---|---|
| **Internal marks (Internal)** | **(50)** |
| • Continuous evaluation of the Project | **20** |
| • Viva Voce (Internal) | **30** |
| **External Marks ( External)** | **(50)** |
| • Viva Voce (External) | **50** |
| **Total** | **100** |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Practical Exam and Viva Voce separately to secure minimum passing grade)

| ADID453 | Professional Practice and Project Management | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 2 | 0 | 0 | 0 | 2 |
| Category of Course | Major (Theory) | | | | | |
| Total Contact Hours | 30 | | | | | |
| Pre-Requisites/ Co-Requisites | Logical Thinking, Understanding of Basic Mathematics, Design and Construction | | | | | |

**Course Perspective**

This course equips final-year Bachelor of Design (Hons.) students specializing in Interior Design with a comprehensive understanding of the professional landscape of interior design. It focuses on the legalities, responsibilities, and project management skills necessary for effective practice in a collaborative environment involving multiple contractors, sub-contractors, and consultants. The subject enables the student to gather the legalities and liabilities of working as an interior designer. Also helps the student become aware of his/her responsibilities as an interior designer and the scope of their work in a project where multiple contractors/ sub-contractors and consultants are present. This subject is a very important component of becoming a professional practicing interior design.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding legalities and liabilities associated with professional practice in interior design.
**CO2:** Identifying responsibilities and ethical considerations as an interior designer.
**CO3:** Evaluating the scope of work in collaborative projects involving various stakeholders.
**CO4:** Analysing organizational behavior and management strategies for effective operation within design firms.

**UNIT 1: Professional Bodies & Responsibilities No. of Hours: 8 lectures**

- A. Role of Interior Designer in Projects: The integral role of interior designers within the scope of various projects, comparing it to other professions. Students will understand the distinction between being a professional and running a business, along with the support provided by organizations like IIID (Indian Institute of Interior Designers) in advancing the field.
- B. Legal Framework for Interior Design: A preliminary overview of the Consumer Protection Act and other relevant legislation affecting interior design projects including compliance and protecting consumer rights within project execution.
- C. IIID Code of Professional Conduct: Explore the IIID Code, focusing on professional ethics, the scale of charges, and the units and methods of measurement pertinent to project management.
- D. Project Engagement Process: Securing interior design projects, including types of engagements and the importance of establishing clear conditions before commencing work. Precautions necessary when accepting projects that may involve work previously executed by other designers.

**UNIT 2: Tender, Contract, and Arbitration** **No. of Hours: 8 lectures**

- A. Client Types and Project Contracts: Types of clients encountered in interior design projects and the contracts that govern engagements. Understanding of tenders and arbitration processes relevant to the industry.
- B. Project-Based Career Opportunities: Career paths within interior design projects, examining diverse styles of practice and the dynamics of the client-professional relationship.
- C. Fee Structures and Billing: Fee structures associated with interior design projects, including processes for negotiating fees and billing methods. Students will also learn about tax implications for interior design services.
- D. Contract Types for Interior Projects: Various contract types applicable to interior design projects will be presented, including item rate, labor contracts, lump sum, and cost-plus percentage agreements.

**UNIT 3: Project Management** **No. of Hours: 8 lectures**

- A. Collaboration with Project Stakeholders: Interior designer's interactions with all parties involved in a project, including clients, contractors, subcontractors, consultants, and relevant authorities.
- B. Clerk of Work Responsibilities: Critical duties of the clerk of work, emphasizing the importance of effective planning, scheduling, inspection, and quality control to ensure project success.
- C. Essential Documentation and Compliance: Documentation for interior design projects, such as certificates of payment to contractors, bills of quantities, and schedules of rates. Students will also learn about public, limited, and negotiated tender documents and the associated formalities, including safety regulations in construction.

**UNIT 4: Organizational Behaviour & Office Management** **No. of Hours: 8 lectures**

- Motivation and Leadership in Projects: Organizational behaviour principles such as motivation, leadership, teamwork, and culture, emphasize their relevance in managing successful interior design projects.
- Office Management for Design Practices: Different office types suitable for managing interior design projects, staff structure, record keeping, and efficient communication strategies for project correspondence and presentations.
- Consultant Roles and Coordination: Knowledge of the roles and responsibilities of various consultants involved in interior design projects. Strategies for effective coordination and teamwork to enhance project outcomes.

**Note:** Each student is required to prepare a comprehensive report following a visit to an interior design firm, reflecting on the application of course concepts in real-world projects.

**Learning Experience**

The Professional Practice and Project Management course will be conducted through a combination of theoretical insights and practical experiences, aiming to equip students with the skills necessary for success in the interior design industry. The learning experience will integrate both inside and outside classroom activities.

**Inside Classroom:**

Lectures and Discussions: Foundational concepts will be introduced through interactive lectures that cover the role of interior designers, project management principles, legal frameworks, and ethical considerations.

Hands-on Activities: Students will engage in practical exercises that simulate project management tasks, including budgeting, scheduling, and resource allocation. **Outside Classroom:**

Site Visits: Students will visit active interior design project sites to observe project execution, collaboration among stakeholders, and adherence to timelines and budgets. This experiential learning will bridge theoretical knowledge with practical application in a real-world context.

Case Studies: Analysis of contemporary interior design projects will enable students to explore project management strategies, client relations, and the impact of regulatory frameworks. These case studies will help students understand best practices and innovative solutions used in successful project management.

Visit to Interior Design firm: Each student is required to prepare a comprehensive report following a visit to an interior design firm, reflecting on the application of course concepts in real-world projects. This assignment will encourage critical reflection on their learning experiences and the practical application of professional practices.

**Reference Books**


1. Smith, V. I. *Interior design project manager: Challenges, solutions, and golden rules: Overcome challenges of interior design project management and avoid project failures caused by unclear planning and objectives*.
2. Madsen, S. L., Vaux, D., & Wang, D. (2023). *Practical ethics in architecture and interior design practice*.
3. Namavati, R. H. (2016). *Professional practice: With elements of estimating, valuation, contract, and arbitration*.


**Open Educational Resources (OER)**

1. SWAYAM: https://onlinecourses.nptel.ac.in/noc24_mg01/preview
   https://onlinecourses.nptel.ac.in/noc23_mg124/preview
2. FOYR: https://foyr.com/learn/interior-design-project-management-guide

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks: -<br>**Continuous Assessment (30 Marks)**<br>**Stage wise marking** | 30 Marks |
| **II) Internal Marks (Studio)-Mid-Term Jury** | 20 Marks |
| **External Marks (Jury): -**<br>End Term Jury | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

| ADID455 | LANDSCAPE IN INTERIOR DESIGN | L | T | P | S | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 0 | 2 | 2 |
| Category of Course | Major (Studio) | | | | | |
| Total Contact Hours | 30 | | | | | |
| Pre-requisites/ Co-requisites | Basic knowledge of Landscaping | | | | | |

**Course Perspective**

Interior landscaping is the practice of designing and arranging landscape elements and plants in enclosed environments. Similar to outdoor landscapes interior landscapes provide spaces with ornaments, colour, sculptural elements, focal points, and an overall pleasant environment.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding the key concepts of interior landscaping and selection of plants.
**CO2:** Applying the knowledge of interior landscaping techniques at various scales.
**CO3:** Analysing the problem-solving process concerning context, climate, and material.
**CO4:** Creating innovative interior landscape design solutions that push contemporary boundaries.

**Course Content**

**Unit I: Interior Landscaping Fundamentals** **No. of Hours: 12**

- A - Introduction to Interior Landscaping: Overview of interior landscaping, its purpose, and benefits. Understanding how landscaping enhances aesthetics and well-being in indoor environments.
- B - Plant Selection and Classification: Study of plant classifications and their functions. Students will explore indoor vs. outdoor plants and select suitable plants for interior spaces based on light, air quality, and aesthetic goals.
- C - Visual Vistas and Landscaping Standards: Creating visual connections within interior spaces using plants. Students will learn basic landscaping standards and apply them to create small layout mockups.

**Unit II: Physical Requirements of Plants** **No. of Hours: 12**

- A - Understanding Plant Needs: Examination of light, temperature, humidity, air quality, and water requirements. Students will identify ways to optimize these conditions indoors.
- B - Meeting Plant Needs with Technology: Techniques for lighting, watering, and maintaining indoor plants. Practical sessions on using hand/automatic watering systems and selecting planting mediums.
- C - Landscape Layout and Construction: Students will create basic landscape layouts and construction details, showing plant placements, soil separators, and drainage plans.

**Unit III: Elements and Principles of Interior Landscaping** **No. of Hours: 12**

- A - Elements of Interior Landscaping: Study of design elements like color, form, scale, and balance in landscaping. Students will create small models to practice incorporating these elements into landscape designs.
- B - Landscape Components: Exploration of water bodies, rocks, paving, lighting, and artifacts. Students will add these elements to their models to create layered, balanced spaces.
- C - Arrangement Techniques: Learning principles for plant texture, color, height, and spacing. Students will arrange flowers and plants in sample layouts, focusing on harmony and visual appeal.

**Unit IV: Roof and Deck Landscaping** **No. of Hours: 12**

- A - Modern Trends in Gardening: Introduction to terrace gardens, rock gardens, terrariums, and bonsai culture. Students will develop initial ideas for modern garden types.
- B - Roof Garden Requirements: Essentials for creating roof gardens, including drainage, irrigation, waterproofing, and structural protection.
- C - Designing a Green Roof: Students will design a simple green roof or terrace garden, choosing lightweight planting materials, drainage systems, and plant selections.

Suggestive Exercises: Designing a courtyard for a 5-star hotel, designing an outdoor garden for a residence, Designing a terrace garden Creating a Terrace Garden: Practical design and layout of a terrace garden, including plant selections, materials, and maintenance requirements.

**Text Books:**


1. Dines, N. and Brown, K. (2002). Time-saver standards for landscape architecture.
2. USA: McGraw-Hill


**Reference Books:**


1. Simonds, J. and Starke, B. (2010). Landscape Architecture. Blacklick, USA: McGraw-Hill Professional Publishing.
1. Krishen, P. (2013). Jungle trees of central India. New Delhi: Penguin Books.
2. Krishen, P. (2006). Trees of Delhi. London [u.a.]: Dorling Kindersley.
3. Marsh, G. (1869). Man and nature. New York: C. Scribner & Co..
4. Lynch, K. and Hack, G. (1984). Site planning. Cambridge: MIT Press.
5. Geoffry. and Jellicoe, (2000) Susan. Landscape of Man: shaping the environment from pre-history to the present day. Reed Business Information, Inc
6. Hackett, B. (1982). Planting design. London: E. & F.N. Spon.
7. Robinson, N. (2004). The planting design handbook. Aldershot, Hants, England:
8. Ashgate.
9. McHarg, I. (1992). Design with nature. New York: J. Wiley


**Evaluation Scheme:**

| **Evaluation Components** | **Weightage (%)** |
|---|---|
| **Internal marks (Internal)** | **(50)** |
| • Continuous evaluation of the Project | **20** |
| • Viva Voce (Internal) | **30** |
| **External Marks (External)** | **(50)** |
| • Viva Voce (External) | **50** |
| **Total** | **100** |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Practical Exam and Viva Voce separately to secure minimum passing grade)

| ADID457 | Research Project | L | T | R | C |
|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 4 | 4 |
| Category of Course | Research | | | | |
| Total Contact Hours | 60 | | | | |
| Pre-Requisites/ Co-Requisites | Communication Skills in Reading and Writing | | | | |

**Course Perspective**

The research project in the seventh semester equips Bachelor of Design (Hons.) students specializing in Interior Design with essential skills in research fundamentals, methodology, design, and analysis. Throughout the semester, each student develops a comprehensive synopsis that outlines their chosen topic, research methods, and relevant texts, addressing the 'what, why, and how' of their inquiry. This synopsis acts as a foundational step toward the dissertation in the following semester. According to Borden and Ray (2006), the dissertation serves as a distinctive platform for articulating architectural ideas through structured writing, enabling students to engage with concepts critically, explore new theories, and contribute to architectural discourse. The course hones students' research skills and prepares them to transform their synopses into substantial academic work. By situating their insights within the broader literature, students deepen their understanding of architecture and its implications, setting the stage for impactful contributions to the field.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Understanding existing research and theory, identifying, and describing key components within the research area.

**CO2:** Applying a research strategy by designing the study and selecting suitable methodologies for data collection.

**CO3:** Analysing and interpreting data, synthesizing complex information, and critically assessing the hypothesis.

**CO4:** Evaluating the entire research process, formulating logical conclusions, and communicating findings effectively to colleagues.

**Course Content**

**Unit 1: Articulation of Research Question** **No. of Hours: 16**

- A- Evaluation of Synopsis, topic, and research plan in consultation with the assigned Guide: The evaluation of the synopsis, topic, and research plan with the assigned guide is essential for refining research focus and objectives. This process allows students to receive constructive feedback, identify gaps in existing literature, and enhance their methodologies. Ultimately, it helps students develop a robust research plan that forms a solid foundation for their dissertation.

- B- Final articulation of Research Question: This process involves refining the question to ensure clarity, relevance, and feasibility, aligning it with the research objectives. A well-defined research question not only directs the methodology but also contributes to the overall significance and impact of the research.

**Unit 2: Research Strategy and Design** **No. of Hours: 16**

- A- Establishing a research strategy suitable to the topic: This involves carefully selecting methodologies and data collection techniques that align with the research objectives and questions. This strategic planning ensures that the research remains focused and addresses the specific nuances of the topic. A well-crafted research strategy ultimately enhances the validity and reliability of the findings, leading to more meaningful insights
- B- Designing the Research: Establishing a research strategy suitable to the topic involves several key steps: first, conducting a literature review to identify existing research and gaps; second, defining clear research objectives and questions that guide the inquiry; and third, selecting appropriate methodologies and data collection techniques tailored to the specific needs of the study. Each step is essential for ensuring that the research is focused, relevant, and capable of producing meaningful results.

**Unit 3: Data Collection and Analysis** **No. of Hours: 14**

- A - Complete Collection of Primary and Secondary Data**: This involves** gathering data through various methods, such as case studies, interviews, and site visits, to ensure comprehensive coverage of the research area. Both primary and secondary sources are essential to capture a well-rounded understanding of the topic.
- B - Verification and Sorting of Data: Once data is collected, it is verified and sorted to ensure accuracy and relevance. This step is critical for establishing the credibility of the research findings and aids in streamlining the subsequent analysis.
- C - Tabulation of Data and Learning: Data is organized and tabulated systematically, facilitating easier interpretation and highlighting key insights. This structured presentation of data supports a more effective learning process.
- D - Analysis of Data: Both quantitative and qualitative analyses are conducted to extract patterns, correlations, and meanings from the data. This analysis forms the foundation for developing insights and conclusions relevant to the research objectives.
- E - Development of Analytical Frameworks and Theoretical Models: Based on the data analysis, frameworks and models are developed to conceptualize findings. This step provides a theoretical structure that enhances the depth of the research.
- F - Reworking Hypothesis/Research Question: Findings from the data analysis may prompt adjustments to the original hypothesis or research question. This iterative approach ensures that the research remains adaptable and accurately reflects the insights gained.

**Unit IV- Integration, Synthesis and Final Submission**: **No. of Hours:14**

- **A - Integration and Exploration of Data with Research Question**: Data is integrated and examined in relation to the research question and topic, allowing for a comprehensive understanding of the findings within the context of the study.

- **B - Examining Arguments and Counterarguments**: This involves analyzing and comparing different perspectives related to the research topic, fostering a balanced and critical view of the subject matter.
- **C - Propositions and Recommendations for Future Research**: Based on the findings, suggestions for future research directions are made. These recommendations help to extend the knowledge base and guide subsequent studies.
- **D - Conclusion, Introduction, and Abstract**: The research is summarized through a well-crafted conclusion, introduction, and abstract, providing a concise overview of the study's findings and contributions.
- **E - Presentation of Material in a Well-Organized Report**: The final report is logically organized and includes illustrations, maps, data charts, and appendices where necessary. This presentation enhances clarity and impact.
- **F - Finalizing the Report**: The report is refined to be error-free, complete with captions, citations, bibliography, images, and any required appendices. This meticulous review ensures the report meets academic standards.
- **G - Submission of Three Hard-Bound Copies**: Three copies of the final report are prepared and submitted to the guide in the prescribed format, fulfilling the project's submission requirements.

**Learning Experience**

**Inside Classroom:**

It includes structured research workshops that guide students in selecting topics and formulating research questions. Regular design critique sessions will allow students to present their proposals and receive constructive feedback, while in-depth case study analyses can help them identify effective research strategies. Simulated data collection exercises will provide hands-on experience in gathering qualitative and quantitative data. Additionally, pairing students with faculty mentors for personalized guidance and hosting sessions on utilizing library resources will enhance their research skills. Together, these experiences will equip students with the knowledge and confidence needed to complete their dissertations.

Outside Classroom:

This will include site visits to completed projects for real-world inspiration and internships with design firms for practical insights. Guest lectures from industry experts will cover current trends, while opportunities to attend or present at conferences will enhance networking. Additionally, students will collaborate with local organizations on projects addressing community needs, emphasizing the social impact of their work. Together, these experiences will deepen their understanding of dissertation research and its real-world applications.

**Reference Books**


1. Black, James A. and Dean J. Champion, Methods and Issues in Social Research, Wiley, New Jersey, 1976
2. Borden, Iain and Katerina Ruedi Ray, The Dissertation: A Guide for Architecture Students, Routledge, 2014 (III edition)
3. Groat, Linda and David Wang, Architectural Research Methods, Wiley, New Jersey, 2013 (2nd edition)

4. Eco, Umberto, How to Write a Thesis (trans. Caterina Mongiat Farina and Geoff Farina), The MIT Press, London and Cambridge, 2015
5. http://www.newagepublishers.com/samplechapter/000896.pdf
    1. http://www.authorstream.com/Presentation/drpattron68-138583-Research-Methodology-CONTENTS-Constitutes-Topic-Select-Limitations-method-Entertainment-ppt-powerpoint

**Open Educational Resources (OER)**

1. JSTOR
2. Web of Science Full Text
3. Oxford Art Online (trial till October)

These and other databases can be found at http://libguides.lib.xjtlu.edu.cn/architecture

**Evaluation Scheme**

| **Evaluation Components** | **Weightage** |
|---|---|
| Internal Marks: -<br>**Continuous Assessment (30 Marks)**<br>**Stage wise marking** | 30 Marks |
| **II) Internal Marks (Studio)-Mid-Term Jury** | 20 Marks |
| **External Marks (Jury): -**<br>End Term Jury | 50 Marks |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

| ADID459 | INTERIOR WORKING DRAWING | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 4 | 0 | 4 |
| Category of Course | (MAJOR) STUDIO | | | | | |
| Total Contact Hours | 60 | | | | | |
| Pre-Requisites/ Co-Requisites | Understanding of design, construction techniques, materials, and knowledge of AUTOCAD | | | | | |

**Course Perspective**

The Working Drawing for Interior Design course equips students with essential skills to create precise, construction-ready drawings that bridge design concepts with real-world implementation. Focused on the specific needs of interior spaces, students learn to detail finishes, fixtures, furniture, and joinery, ensuring their designs are both functional and buildable. Through mastering industry standards and CAD proficiency, they produce comprehensive drawing sets that communicate effectively with contractors and fabricators, preparing them for professional roles in the interior design field.

**Course Outcomes**

**On completion of the course the learner will be:**

**CO1:** Identifying essential standards and components in interior working drawings.
**CO2:** Constructing accurate plans, sections, and elevations for interior layouts.
**CO3:** Designing detailed joinery, furniture, and finish drawings with clear specifications.
**CO4:** Applying technical standards to ensure clarity and consistency in interior drawings.
**CO5:** Demonstrating CAD proficiency by producing professional, construction-ready drawings.

**Course Content**

**UNIT-1: Interior Working Drawings** **No. of Hours: 16**

- A. Introduction to working drawings in interior design: purpose, scope, and industry standards.
- B. Floor plans: detailing furniture layout, spatial divisions, and proper annotations.
- C. Reflected ceiling plans (RCP): including lighting, HVAC, and material finishes.
- D. Sections and elevations of interior walls, with details of finishes and false ceilings.
- E. Flooring layout plans: material specifications, patterns, and installation techniques.

**UNIT-2: Service Drawings for Interiors** **No. of Hours: 16**

- A. Electrical layout: fixture placement, switch locations, and outlet specifications.
- B. Plumbing layout: water supply and drainage systems for kitchen and bathroom areas.
- C. Sanitary layout: fixture placements and drainage details for toilets and wet areas.
- D. HVAC layout: ventilation systems, including air conditioning and heating units.
- E. Kitchen and bathroom layout: detailed fixture placements, materials, and specifications.

**UNIT-3: Working Details of Interior Components** **No. of Hours: 14**

- A. Door and window details: frame profiles, materials, hardware, and installation.
- B. Staircase details (if applicable): specifications for railings, balustrades, and steps.
- C. Joinery details: custom cabinetry, built-in storage, and shelving units with material specifications.
- D. Wall sections: detailing finishes, skirting, sills, lintels, and insulation layers.

- E. Fixed furniture and millwork: detailing for custom units such as closets, vanities, and other built-ins.

**UNIT-4: Finishing Drawings and Schedules** **No. of Hours: 14**

- Flooring details: skirting, transition details, material choices, and patterns.
- Wall finishes: tiling, paneling, cladding, and custom treatments.
- Paint and plaster finishes: color schemes, texture finishes, and detailing.
- Fixture schedules: detailing for kitchen, bathroom, and essential fixtures throughout the interior space.
- Material and hardware schedules: comprehensive detailing for procurement, coordination, and construction.

**Learning Experience:**

**Inside Classroom:**

Lectures and Discussions**:** Interactive sessions on understanding working drawings, including essential elements like floor plans, sections, elevations, and details.

Case studies of real-world interior design projects and their corresponding working drawings. Group discussions on industry standards and the role of working drawings in successful interior design projects.

Hands-on Drawing Sessions: Practical sessions using CAD software to create interior design drawings, including plans, elevations, and joinery details. Lectures on converting design concepts into precise, construction-ready working drawings. Discussions on resolving common drawing errors and enhancing clarity.

**Outside Classroom:**

Site Visits**:** Visits to live construction sites or completed interior projects to see the application of working drawings in real-world settings. Observation of the connection between design drawings and their implementation on-site. Understanding the challenges faced by contractors and designers when interpreting working drawings.

Field Research and Exploration**:** Research on current trends in interior design drawing practices through online resources, books, and journals. Exploration of different types of drawing techniques, such as hand-drawing vs. digital drawing, and their relevance in interior design. Personal exploration of design software to improve proficiency in creating and presenting working drawings.

**Reference Books/Materials**


1. Barry, R. (1999). The Construction of Buildings Vol. 2. 5th Ed. New Delhi: East-West Press.
2. McKay, W. B. (2005). Building Construction Metric Vol. I–IV. 4th Ed. Mumbai: Orient
3. Longman.
4. Rangwala, S. C. (1963). Building Construction: Materials and types of Construction. 3rd Ed. New York: John Wiley and Sons.
5. Sushil-Kumar, T. B. (2003). Building Construction. 19th Ed. Delhi: Standard Publishers.


**Open Educational Resources (OER)**

NA

**Evaluation Scheme:**

| Evaluation Components | Weightage (%) |
|---|---|
| **Internal marks (Internal)**<br>C. Continuous Assessment<br>**(All the components to be evenly spaced)**<br>Projects/ Quizzes/Presentations/ Participation/ Case Studies/Internal Jury (minimum of five components to be evaluated)<br>D. Viva Voce (Internal) | **50**<br>20<br>30 |
| **External Marks (External)**<br>G. End Term practical Exam<br>H. Viva Voce (External) | **50**<br>20<br>30 |
| **Total** | **100** |

*(It is compulsory for a student to secure 40% marks in Internal and End Term Practical Exam and Viva Voce separately to secure minimum passing grade)

# Semester VIII

| ADID452 | INTERIOR DESIGN INTERNSHIP | L | T | S | P | C |
|---|---|---|---|---|---|---|
| Version | 1.0 | 0 | 0 | 0 | 0 | 14 |
| Category of Course | INTERNSHIP | | | | | |
| Total Contact Hours | NA | | | | | |
| Pre-Requisites/ Co-Requisites | Understanding of materials and drafting skills/ Observation, drawing skills | | | | | |

**Course Perspective:**

This course bridges the theoretical foundations of interior design with practical industry experience, immersing students in the operational and creative aspects of working within an architect's or interior designer's office. Over 22 weeks, students gain exposure to a range of design activities, from initial development stages to detailed fabrication drawings and project management. Working closely with experienced professionals, students hone their communication, analytical, and technical skills, and develop a comprehensive portfolio showcasing construction details, materials, and service integration. This hands-on experience cultivates the essential skills and confidence needed to meet the dynamic demands of the interior design profession.

**Course Outcomes:**

**On completion of the course the learner will be:**

**CO1:** Understanding and articulating key principles of professional practice by identifying and explaining the roles and responsibilities within an architectural or interior design environment.

**CO2:** Applying industry techniques and project management skills by engaging in real-world design tasks under the guidance of a seasoned professional, such as planning, scheduling, and executing interior design projects.

**CO4:** Applying professional and design skills by effectively managing and documenting daily tasks, and facilitating a structured approach to project deadlines.

**CO3:** Analysing and evaluating design processes by assessing design techniques, materials, and challenges experienced during training.

**CO4:** Creating comprehensive training reports by documenting experiences and insights gained during practical training, including technical drawings, observations, and analyses of design methodologies.

**Course Content:**

The 22-week office training program provides in-depth exposure to the realities of working within an architect's or interior designer's firm, preparing them for the profession's demands. During this period, students will engage in various aspects of the design process, including:

- **Design Development**: Collaborating on evolving design concepts from initial ideas to fully realized plans.
- **Working Drawings**: Producing and interpreting technical drawings that communicate essential construction details.
- **Presentation and Fabrication Drawings**: Creating visual representations of design proposals for client presentations and production processes.

- **Site Visits**: Engaging in on-site evaluations to gain insight into contextual and environmental considerations influencing design.
- **Client and Consultant Meetings**: Participating in professional meetings, enhancing communication, and refining negotiation skills.

**Reporting Requirements**

Each student is required to maintain a **Monthly Log** documenting their activities, learnings, and reflections throughout the training period. This log should highlight key experiences, challenges faced, and skills acquired during their time at the firm.
The **Joining Report** must be submitted at the start of the training, detailing the firm's background, the nature of projects undertaken, and the specific role of the student within the team.
After the training, students must obtain a **Completion Certificate** from the firm, verifying their participation and outlining the scope of work completed.

The **Training Report/ Portfolio** produced by each student will document their learning experience, incorporating:

- **Drawings and Observations**: Collecting various technical and graphic data related to design, structure, construction methods, and material use encountered during the training.
- **Building Study**: Conducting a critical appraisal of a significant building designed and supervised by the host firm, analyzing its architectural merits and design process.
- **Building Material Study**: Investigating contemporary building materials, detailing their characteristics and applications in real-world projects.
- **Detailing Study**: Exploring the intricate details of a selected design element or feature implemented by the firm, enhancing the understanding of practical design execution.

**Learning Experience**

The **Evaluation of Internship** course provides an immersive learning experience within a professional setting, allowing students to engage deeply with the intricacies of the interior design field. During the 22-week internship, students collaborate closely with experienced architects and designers, participating actively in the design process from concept development to project execution. This hands-on training includes tasks such as preparing working and presentation drawings, conducting site evaluations, and participating in client and consultant meetings, which enhance their understanding of project management and communication strategies

**Evaluation Scheme:**

| **Evaluation Components** | **Weightage (%)** |
|---|---|
| **Internal marks (Internal)**<br>• **Report/ Portfolio Evaluation** | **(50)** |
| **External Marks (External)**<br>• **Viva Voce (External)** | **(50)** |
| **Total** | **100** |