



SNDT Women's University, Mumbai

**Undergraduate Degree / UG
Programme (Syllabus as Per NEP) -
Faculty of Science & Technology**

**Bachelor of Science
Home Science
(Resource Management & Interior
Design)**

B.Sc. In H.Sc. – RMID

As Per NEP – 2020

Semester – V & VI

**Syllabus
(W.E.F. Academic Year 2025-26)**

Terminologies

Vertical	Full-Form/Definition	Remarks	Related To Major And Minor Courses
Major (Core)	Subject Comprising Mandatory and Elective Courses, Major Specific IKS, Vocational Skill Courses, Internship/ Apprenticeship, Field Projects, Research Projects Connected to Major	Minimum 50% Of Total Credits Corresponding to Three/Four - Year UG Degree- Mandatory Courses	Related To The Major
Minor Course	Course From Same Or Different Faculty	Minimum 18-20 Credits to Be Completed in The First Three Years of UG Programme	Related To the Minor
OEC	Open Elective Courses/ Generic Courses	10-12 Credits to Be Offered in I And/Or II Year. Faculty-Wise Baskets of OEC To Be Prepared	OEC Is to Be Chosen Compulsorily from Faculty Other Than That of the Major
VSC	Vocational Skill Courses, Including Hands On Training Corresponding To The Major And/Or Minor Subject	8-10 Credits, To Be Offered in First Three Years, Wherever Applicable Vocational Courses Will Include Skills Based on Advanced Laboratory Practical's of Major	Related To the Major or Minor
SEC	Skill Enhancement Courses	06 Credits, To Be Offered in I And II Year, To Be Selected from The Basket of Skill Courses Approved by University	Related To the Major or Minor Any Relevant Skill
AEC	Ability Enhancement Courses	08 Credits, To Be Offered in I And II Year, English: 04 Credits to Be Earned in Sem - I, Modern Indian Language Of 04 Credits to Be Offered in II Year	NA
VEC	Value Education Courses	Understanding India, Environmental Science/Education, Digital and Technological Solutions, Health &	NA

		Wellness, Yoga Education, Sports, And Fitness	
IKS	Indian Knowledge System	Generic IKS Course: Basic Knowledge Of The IKS To Be Offered At First Year Level	Major-Specific IKS Courses: Advanced Information About the Major, Part of the Major Credit to Be Offered at Second- Or Third-Year Level
OJT	On-Job Training (Internship / Apprenticeship)	Corresponding To the Major Subject	Related To The Major
FP	Field Projects	Corresponding To the Major Subject	Related To the Major
CC	Co-Curricular Courses	Health And Wellness, Yoga Education Sports, And Fitness, Cultural Activities, NSS/NCC And Fine/ Applied/Visual/ Performing Arts	NA
CE	Community Engagement and Service		Related To Major
RP	Research Project	Corresponding To the Major Subject	Related To Major

Programme Template

Degree	B.Sc.
Programme	BSc in Resource Management and Interior Design
Preamble	<p>Resource Management and Interior Design course aims to provide students with a thorough understanding of the concepts, creativity, aesthetic sense, and technical skills needed to design visually appealing, practical, and sustainable interior and exterior spaces. It also focuses on other aspects of the course like efficient management of time, money, spaces, resources and knowledge of smart materials, current trends, fashion to successfully implement creative and people-centered design solutions. The field also incorporates technology, services, ergonomics, consumer theories, landscaping, professional communication skills and traditional and conventional practices in designing.</p> <p>On completion of the course, the student will have the complete knowledge, technical skills and enhanced abilities needed to excel in creating safe, functional, and aesthetically appealing indoor and outdoor environments to improve quality of life and cater to the changing requirements of society. Today there is a growing demand for professionals with expertise in space planning, material selection, construction, and renovation projects, designing offices, hotels, stores, etc., thus opening a wide variety of professional avenues for the students.</p>
Programme Specific Outcomes(PSOs)	After completing this programme, learner will be able to
	1 Illustrate and implement the fundamental elements and principles of design ensuring a coherent and visually compelling artistic outcome.
	2 Demonstrate strong buying abilities while choosing products and services from the market.
	3 Understand the intricacy of visual aesthetics while designing spaces.
	4 Analyze the needs of users considering cultural and social factors.
	5 Understand the need for proficiency in multiple perspectives for product and space design.
	6 Critically analyze original concepts and innovations that will strengthen the ability to design spaces and products.

	7	Analyze the ergonomic aspects of different job tasks and their potential impact on health.
Eligibility Criteria for Programme		<p>Eligibility Criteria for Programme A candidate to be eligible for admission for the three/four-year course leading to the Degree of Bachelor of Science:</p> <ul style="list-style-type: none"> • Must have passed the Higher Secondary School Certificate (Std. XII) examination conducted by different Divisional Boards of the Maharashtra (or any other State) Board of Secondary and Higher Secondary Education. • Must have passed Higher Secondary School Certificate (Standard XII) examination with Minimum Competency-based Vocational Courses (MCVC) conducted by the different Divisional Boards of the Maharashtra (or any other State) Board of Secondary and Higher Secondary Education. <p>OR</p> <ul style="list-style-type: none"> • Equivalent
Intake (For SNTD WU Departments and Conducted Colleges)		30 Students

Structure with Course Titles**B.Sc. In Home Science - Resource Management and Interior Design****Semester – V**

Sr. No.	Course	Type of Course	Credits	Marks	Int Marks	Ext Marks
	Semester – V					
50130811	Commercial Interior Design (Th)	Major (Core)	4	100	50	50
50130822	Commercial Interior Design (Pr)	Major (Core)	4	100	50	50
51030811	Vernacular Architecture (Th)	IKS (Major Specific)	2	50	0	50
50230811	Sustainable practices in Interior Design (Th+Pr) (2+2)	Major (Elective) (Any One)	4	100	50	50
50230812	Application of Ergonomics in Interior Design (Th+Pr) (2+2)					
50330811	Home Décor and Furnishing (Th+Pr) (2+2) (Other than Major)	Minor Stream	4	100	50	50
50630801	Google Sketchup (Pr)	VSC-4	2	50	50	0
51330801	Design Audit (Indoor/Outdoor) (Pr)	FP	2	50	50	0
			22	550	300	250

Semester – VI

Sr. No.	Course	Type of Course	Credits	Marks	Int Marks	Ext Marks
	Semester - VI					
60130821	Building Services (Pr)	Major (Core)	4	100	50	50
60130812	Professional Practice (Th)	Major (Core)	4	100	50	50
60230821	Advanced CADD (Pr)	Major (Elective) (Any One)	4	100	50	50
60230822	Biophilic Interiors (Pr)					
60330811	Basics of Workspace Design (Th)	Minor Stream	2	50	0	50
60330812	Interior Product Design (Th+Pr) (2+2)	Minor Stream	4	100	50	50
61230821	Internship (Pr)	OJT	4	100	50	50
			22	550	250	300

Exit with Degree (3-year)

Course Syllabus

Semester – V

.5.1 Major (Core)

Course Titles	Commercial Interior Design (Th)
Course Credits	4 Credit's
Course Outcomes	After going through the course, learners will be able to
	1. Analyze user needs in workplace, retail, hospitality, and institutional spaces
	2. interpret building codes and life safety regulations for commercial interiors
	3. Evaluate materials, finishes, lighting, and building systems
	4. Draft sustainability frameworks and certification systems
Module 1 (Credit 1) - Foundations of Commercial Interior Design	
Learning Outcomes	After learning the module, learners will be able to
	1. Apply principles of space planning, ergonomics, building codes, and material selection to develop basic design solutions for commercial interior projects.
	2. Analyze user requirements, brand identity, circulation patterns, and functional constraints to inform design decisions in commercial settings.
	3. Evaluate commercial interior design proposals based on functionality, compliance, sustainability, and user experience, and justify design decisions with clear reasoning.
Content Outline	<ul style="list-style-type: none">● Definition and scope of commercial interiors<ul style="list-style-type: none">○ Differences between residential and commercial design○ Types of commercial spaces, office, retail, hospitality, healthcare, institutional● Importance of Commercial interiors<ul style="list-style-type: none">○ Differences between residential and commercial interiors○ Environment○ Spacing○ Planning○ Circulation○ Privacy○ Zoning● Study of factors influencing furnishing of commercial

	<p>spaces</p> <ul style="list-style-type: none"> ○ Types of organisation (small, medium, large) ○ Space requirement –Working space (active and passive) ○ Dead space <p>● Points To Be Considered While Designing Commercial Interiors</p> <ul style="list-style-type: none"> ○ Location ○ Space Requirement ○ Preferences ○ Financial Aspects ○ Arrangements
Module 2 (Credit 1) – DESIGN OF COMMERCIAL SPACES	
Learning Outcomes	After learning the module, learners will be able to
	1. Apply spatial planning strategies to develop functional layouts for retail, office, and hospitality environments based on user needs.
	2. Analyze commercial space case studies to evaluate design effectiveness in terms of branding, user experience, and operational efficiency.
	3. Develop comprehensive design proposals for commercial interiors that integrate concept development, material selection, lighting, and services coordination.
Content Outline	<p>● Points To Be Considered While Designing Commercial Interior Spaces</p> <ul style="list-style-type: none"> ○ Study of work centres ○ Environmental factors ○ Body postures ○ Psychological aspects <p>● External and internal display</p> <ul style="list-style-type: none"> ○ Exhibits- internal , external ○ External facades for display ○ Landscaping (indoor and outdoor) ○ Signage <p>● Introduction To Commercial Services</p> <ul style="list-style-type: none"> ○ Intercom

	<ul style="list-style-type: none"> ○ Computer system ○ Sound equipment's (Music, alarm, mike systems, bells, buzzers, etc.) ○ Security & Safety (fire fighting) ● Lighting Air conditioning <ul style="list-style-type: none"> ○ Type of Lighting ○ Lighting fixtures ○ Air-conditioning ○ Types of AC ○ Its parts and fixing methods -Sizes and installations considerations.
Module 3 (Credit 1) - Materials, Finishes and Sustainability	
Learning Outcomes	After learning the module, learners will be able to
	1. Analyze and compare materials based on durability, life cycle impact, cost, and environmental performance.
	2. Evaluate material and finish selections using sustainability standards, certifications, and ethical sourcing principles.
	3. Propose appropriate material and finish specifications for interior projects that integrate aesthetics, performance, and sustainable practice.
Content Outline	<ul style="list-style-type: none"> ● Commercial materials and finishes <ul style="list-style-type: none"> ○ Flooring systems ○ Wall and ceiling systems ○ Furniture systems and modular components ● Performance criteria <ul style="list-style-type: none"> ○ Durability ○ Fire resistance ○ Maintenance and lifecycle cost ● Sustainable design principles <ul style="list-style-type: none"> ○ Energy efficiency strategies ○ Water conservation strategies ● Introduction to LEED by the Green Building Council
Module 4 (Credit 1) – Professional Practice and Project Delivery	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain the stages of professional practice and project delivery,

	including scope definition, contracts, and coordination roles.
	2. Apply principles of fee structuring, documentation, and scheduling to develop a basic project delivery plan.
	3. Analyze contractual, legal, and ethical issues in interior design projects to identify risks and responsibilities.
	4. Evaluate project management strategies to improve time, cost, and quality outcomes in professional practice.
Content Outline	<ul style="list-style-type: none"> ● Design process in commercial projects <ul style="list-style-type: none"> ○ Programming and space planning ○ Concept development and documentation ● Contracts and fee structures <ul style="list-style-type: none"> ○ Roles of consultants and stakeholders ○ Coordination with architects and engineers ● Project management <ul style="list-style-type: none"> ○ Budgeting and cost estimation basics ○ Tendering and procurement processes ● Post occupancy evaluation

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Total Marks – 50 (Continuous Assessment)

- Written test – 25 marks
- Survey on a specific types of commercials and finding basic differences in materials, arrangements and display – 10 marks
- Visiting malls and documenting picture - 5 marks
- Collection Facades -5 Marks
- Window display -5 Marks
- Landscaping - 5 Marks

References

1. Ching, F. D. K., & Binggeli, C. (2018). Interior design illustrated, 4th ed. John Wiley & Sons.
2. Kilmer, R., & Kilmer, W. O. (2014). Designing interiors, 2nd ed. John Wiley & Sons.
3. Pile, J. F., & Gura, J. (2013). A history of interior design, 4th ed. John Wiley & Sons.
4. Binggeli, C. (2016). Building systems for interior designers, 3rd ed. John Wiley & Sons.
5. Ballast, D. K. (2013). Interior construction and detailing for designers and architects, 2nd ed. Professional Publications Inc.
6. United States Green Building Council. (2014). LEED v4 for building design and construction. U.S. Green Building Council.

7. International WELL Building Institute. (2020). WELL building standard v2. International WELL Building Institute.
8. By mess

Semester – V

.5.2 Major (Core)

Course Titles	Commercial Interior Design (Pr)
Course Credits	4 Credit's
Course Outcomes	After going through the course, learners will be able to
	1. Visualize and draw simple commercial interior schemes.
	2. Select appropriate materials for various surfaces.
	3. Comprehend professional codes of management and practice as interior designers.
Module 1 (Credit 1) – Commercial Interior Design	
Learning Outcomes	After learning the module, learners will be able to
	1. Sketch and design counters, work centres, and storage units.
	2. Prepare layouts for modular furniture arrangements.
	3. Create perspective views and elevations for small retail shops.
Content Outline	<ul style="list-style-type: none"> ● Counters, shops, showrooms. ● Work centres (banks, shops). ● Storage units, filing cabinets ● Modular furniture arrangements. ● Furniture layout and perspective views. ● Design of a small retail shop (100 sq. ft.) such as general store, tailor, mobile shop, photo studio.
Module 2 (Credit 1) – Designing a Small Commercial Space	
Learning Outcomes	After learning the module, learners will be able to
	1. Prepare plans, sectional elevations, and reflected ceiling plans.
	2. Detail partitions, false ceilings, wall panelling, and service layouts.
	3. Integrate electrical, LAN, fire-fighting, and HVAC systems into design
	4. Present commercial space designs using manual and digital techniques.
Content Outline	<p>Design of office/shop/polyclinic/consulting spaces.</p> <ul style="list-style-type: none"> ● Plans, sectional elevations, views. ● Reflected ceiling plans.

	<ul style="list-style-type: none"> ● Detailing: partitions, false ceiling, wall panelling. ● Service layouts: electrical, raceway, LAN wiring, fire-fighting, air-conditioning. ● Presentation techniques: graphite pencils, pen and ink, colour mediums, digital visualization.
Module 3 (Credit 1) – Quantity Survey and Estimating	
Learning Outcomes	After learning the module, learners will be able to
	1. Calculate quantities of civil work, flooring, doors, and windows.
	2. Estimate furniture, furnishings, and services.
	3. Prepare cost sheets for commercial interiors.
Content Outline	<ul style="list-style-type: none"> ● Quantity of civil work (flooring, doors, windows). ● Quantity of furniture (tables, chairs, partitions, false ceiling). ● Quantity of furnishings (carpets, curtains, wallpapers, upholstery, painting, accessories). ● Quantity of services (electrification, air-conditioning).
Module 4 (Credit 1) – Current Trends & Techniques in ID Profession	
Learning Outcomes	1. Use manual and digital techniques for presenting interior schemes.
	2. Prepare final portfolio with plans, sections, views, and lighting effects.
Content Outline	<ul style="list-style-type: none"> ● Graphite pencils, pen and ink, colour mediums. ● Presentation of one entire scheme including plans, sections, views, and lighting effects.

Assessment Pattern

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Total Marks – 50 (Continuous Assessment)

Module 1: Assessment Pattern

- Small retail shop designing (5 marks).

Module 2:

- Commercial space designing (5 marks).
- Presentation portfolio submission (5 marks).

Module 3:

- Service layouts (10 marks).
- Calculating estimation (5 marks).

Module 4:

- Final portfolio submission (20 marks).

References

1. Latest Presentation Techniques in Profession
2. Manuals on interior design visualization and detailing

Semester – V

.5.3 Indian Knowledge System (IKS) (Major Specific)

Course Titles	Vernacular Architecture (Th)
Course Credits	2 Credit's
Course Outcomes	After going through the course, learners will be able to
	1. Analyze the influence of climate, culture, and local materials on Indian vernacular houses.
	2. Compare design strategies and construction techniques across different climatic zones.
	3. Identify and classify vernacular architecture and its regional variations in India.
	4. Apply vernacular design principles to contemporary interior and architectural design projects.
Module 1 (Credit 1) – Introduction to Vernacular Architecture	
Learning Outcomes	After learning the module, learners will be able to
	1. Define vernacular architecture and distinguish it from traditional and contemporary architecture.
	2. Identify key principles and features of vernacular architecture.
	3. Explain the role of local materials, climate response, cultural influence, and sustainability in vernacular design.
	4. Relate vernacular principles to functional and sustainable interior design solutions.
Content Outline	<ul style="list-style-type: none">● Definition and Scope - Understanding vernacular architecture and its relevance to interior design.● Difference Between Vernacular, Traditional, and Contemporary Architecture● Key Features and Principles<ul style="list-style-type: none">○ Use of local materials○ Response to climate and site conditions○ Cultural and functional influence○ Sustainability and energy efficiency
Module 2 (Credit 1) – Vernacular Architecture in India – Features, Materials, and Construction Styles	
Learning Outcomes	After learning the module, learners will be able to
	1. Classify Indian vernacular houses according to climate and region.
	2. Analyse features, materials, and construction styles of

	vernacular houses in different climatic zones.
	3. Compare design strategies across hot & dry, hot & humid, cold & mountainous, and coastal climates.
	4. Apply vernacular design strategies to contemporary interior and architectural design projects.
Content Outline	<ul style="list-style-type: none"> ● Hot & Dry Climate Vernacular Houses <ul style="list-style-type: none"> ○ Havelis of Jaisalmer ○ Bhunga Houses of Bhuj ○ Pol Houses of Ahmedabad ● Hot & Humid Climate Vernacular Houses <ul style="list-style-type: none"> ○ Chettinad Houses ○ Kerala Nalukettu ● Cold & Mountainous Climate Vernacular Houses <ul style="list-style-type: none"> ○ Himachali Hill Homes ○ Kumaoni Houses ● Coastal Climate Vernacular Houses <ul style="list-style-type: none"> ○ Goan Portuguese Houses ○ Konkan Coastal Houses ● Applying Vernacular Design Principles in Contemporary Interiors

Assessment Pattern

External - Projects & Presentations based on field visits or case studies

- Apply vernacular design principles to contemporary interior design concepts.
- Create design proposals inspired by different types of vernacular homes.
- Sketch floor plans, facades, and construction details for selected houses.

External Examination (theory)

References

1. Basu, D. (Ed.). (2021). Folk architecture of Asian villages and towns: A comparative study. Sharada Publishing House. Retrieved from https://www.vedamsbooks.com/books/folk_architecture_of_asian_villages_and_towns_a_comparative_study
2. Kharmich, H., El Harrouni, K., Baba, K., & Karibi, K. (Eds.). (2025). Vernacular architecture. Materials Research Forum. Retrieved from <https://mrforum.com/product/vernacular-architecture/>
3. Mileto, C., Vegas, F., García Soriano, L., & Cristini, V. (Eds.). (2015). Vernacular architecture: Towards a sustainable future. CRC Press. Retrieved from

<https://www.routledge.com/Vernacular-Architecture-Towards-a-Sustainable-Future/Mileto-Vegas-GarciaSoriano-Cristini/p/book/9781138026827>

4. Oliver, P. (Ed.). (1997). Encyclopedia of vernacular architecture of the world (3 vols.). Cambridge University Press. Retrieved from https://www.ribabooks.com/encyclopedia-of-vernacular-architecture-of-the-world_9781472592736/
5. Pandharpurkar, V. (2024). Rich vernacular architecture of India: Unexplored aspects of vernacular architecture in India. Bookscape. Retrieved from <https://bookscape.com/product-details/rich-vernacular-architecture-of-india-unexplored-aspects-of-vernacular-architec-9798889861232>
6. Piesik, S. (Ed.). (2023). Habitat: Vernacular architecture for a changing climate. Thames & Hudson. Retrieved from <https://www.abebooks.com/first-edition/Habitat-Vernacular-Architecture-Changing-Climate-Piesik/31511103340/bd>
7. Randhawa, T. S. (2022). Vernacular architecture of India: Traditional residential styles and spaces. Tejinder S. Randhawa & INTACH. Retrieved from https://www.vedamsbooks.com/books/vernacular_architecture_of_india_traditional_residential_styles_and_spaces
8. Vellinga, M., Oliver, P., & Bridge, A. (2007). Atlas of vernacular architecture of the world. Routledge. Retrieved from <https://www.routledge.com/Atlas-of-Vernacular-Architecture-of-the-World/Vellinga-Oliver-Bridge/p/book/9780415359015>

Semester – V

.5.4 A. Major (Elective)

Course Titles	Sustainable Practices in Interior Design (Th+Pr)
Course Credits	4 Credit's (2 Th + 2 Pr)
Course Outcomes	After going through the course, learners will be able to
	1. Design healthy, efficient apartments
	2. Improve on indoor air quality measures
	3. Evaluate sustainable materials for different design requirements.
Module 1 (Credit 1) – Principles of Sustainable Interior Design	
Learning Outcomes	After learning the module, learners will be able to
	1. Develop awareness of environmental sustainability in the context of interior design.
	2. Evaluate sustainable materials for different design requirements
Content Outline	<ul style="list-style-type: none"> ● Environmental Responsibility & Sustainable Interior <ul style="list-style-type: none"> ○ Introduction to Sustainable Interior ○ Role of designer's in global climate action. ○ Concept of Ecological footprint vs. carbon footprint ○ Reuse, repurpose, recycle ● Sustainable Material <ul style="list-style-type: none"> ○ Classification of Interior Materials: Natural, artificial, metallic, and non-metallic materials. ○ Selection criteria: Sourcing, durability, and renewability. ○ Materials & Finishes – Eco-Friendly Alternatives for interior construction and finishes. ○ Renewable resources (bamboo, cork, hemp) and reclaimed wood. ○ Low-VOC paints, non-toxic coatings, and recycled-content flooring.
Module 2 (Credit 1) – Interior Sustainability and Human Health	
Learning Outcomes	After learning the module, learners will be able to
	1. Design energy-efficient interior spaces using sustainable technologies.
	2. Apply strategies to improve indoor air quality and reduce noise pollution.
	3. Able to understand eco-friendly trends such as biophilic design.

Content Outline	<ul style="list-style-type: none"> ● The Ways of Sustainability <ul style="list-style-type: none"> ○ Strategies: Upcycling, recycling, and modular usage for waste reduction. ○ Building Systems & Resource Efficiency ○ Energy Efficiency, Renewable energy, Eco-friendly Lighting Options ○ Day lighting strategies, thermal insulation ○ High-efficiency LED systems, smart sensors, and energy-star appliances ○ Sustainable furniture ● Human Health & Future Trends <ul style="list-style-type: none"> ○ Indoor Environmental Quality (IEQ) ○ Improving IAQ through natural ventilation, purification, and oxygen-producing plants. ● Regulatory Norms & Documentation <ul style="list-style-type: none"> ○ Introduction to local green building codes (e.g., ECBC or GRIHA in India).
Module 3 (Credit 1) – Practical : Sustainable Material	
	<ul style="list-style-type: none"> ● Market Survey: ● Surveying local vendors for certified Sustainable/green materials and cost analysis. ● Survey of Smart technologies in green design
Module 4 (Credit 1) – Practical: Sustainable Homes/ Workplaces	
	<ul style="list-style-type: none"> ● Case study of Sustainable Homes/ Workplaces ● Energy-saving case studies ● Final Presentation ● Students present a redesigned studio project incorporating all sustainable parameters learned.

Assessment Pattern

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Total Marks – 50 (Continuous Assessment)

- Market survey – 20 marks

- Case study – 15 marks
- Final Presentation – 15 marks

External Total Marks – 50

References

1. The Key of Interior Design by Nikita Mittal Publisher Standard Book House
2. Synergistic Design of Sustainable Built Environments by Chitrarekha Kabre publisher CRC Press / Taylor & Francis
3. Sustainable Building Design: Applications Using Climatic Data in India by Chitrarekha Kabre Publisher Springer Nature
4. Green Homes and Workplaces by Mili Majumdar & Minni Sastry publisher TERI Press (The Energy and Resources Institute)
5. Sustainable Building Design Manual by Mili Majumdar publisher TERI Press
6. Sustainable Futures: Principles of Eco-Friendly Architecture by Dr. Santosh Tiwari publisher Standard Book House
7. Vernacular Traditions: Contemporary Architecture by Aishwarya Tipnis publisher TERI Press
8. Elements of Spacemaking by Yatin Pandya publisher Mapin Publishing
9. Suits well Solutions: Interior Design Bible by Mayannk publisher Blue Rose Publishers.

Semester – V

.5.4 B. Major (Elective)

Course Titles	Application of Ergonomics in Interior Design (Th+Pr)
Course Credits	4 Credit's (2 Th + 2 Pr)
Course Outcomes	After going through the course, learners will be able to
	1. Develop an understanding of ergonomic principles and their relevance in interior environments.
	2. Apply anthropometric and biomechanical principles in spatial planning and furniture design.
	3. Integrate health, safety, comfort, and accessibility considerations into interior projects.
	4. Implement basic ergonomic assessments and develop evidence-based interior design solutions.
Module 1 (Credit 1) – Introduction to Ergonomics	
Learning Outcomes	After learning the module, learners will be able to
	1. Define ergonomics and describe its interdisciplinary nature
	2. Demonstrate the Man–Machine–Environment system in relation to interior design.
	3. Differentiate between manual, mechanical, and automatic systems.
	4. Interpret the concepts of fitting the job to the person and fitting the person to the job in spatial contexts.
Content Outline	<ul style="list-style-type: none"> ● Introduction to ergonomics <ul style="list-style-type: none"> ○ Definition and Meaning of ergonomics ○ Interdisciplinary nature of ergonomics ○ Scope and relevance of Ergonomics in interior design ● Conceptual Ergonomics <ul style="list-style-type: none"> ○ Man, Machine Environment (MME) system ○ Types of MME systems (Manual, Mechanical & Automatic system) ○ Concepts of fitting the job to the person (FJP); fitting the person to the job (FPJ)
Module 2 (Credit 1) – Environmental Ergonomics and Occupational Safety	
Learning Outcomes	After learning the module, learners will be able to
	1. Assess environmental factors such as lighting, thermal conditions, and noise in interior spaces.
	2. Explain thermoregulation and health risks associated with

	extreme environments.
	3. Identify causes of occupational accidents and suggest preventive strategies.
	4. Apply safety regulations and universal safety principles in interior environments.
Content Outline	<ul style="list-style-type: none"> ● Environmental Ergonomics <ul style="list-style-type: none"> ○ Lighting and visual environment ○ Thermal environment (hot and cold) – thermoregulatory mechanism of the human body, illnesses associated with heat and cold, measures to reduce them ○ Noise control and acoustics - Characteristics, permissible limits, Indoor Noise & Outdoor Noise, Sources of noise and Control measures (acoustics, screens, tiles, carpets, curtains etc.) ○ Sick building syndrome ● Occupational Health & Safety <ul style="list-style-type: none"> ○ Industrial accidents: causes & Prevention strategies ○ Clothing and Personal Protective Equipment ○ Factory's act
Module 3 (Credit 1) – Anthropometry and Postural Ergonomics (Pr)	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain the concept of anthropometry and its significance in ergonomic design.
	2. Differentiate between static and dynamic anthropometry
	3. Assess various postures and identify their impact on musculoskeletal health
	4. Evaluate workstation layout designs based on ergonomic principles.
	5. Integrate universal design principles into interior space planning for accessibility and usability.
Content Outline	<ul style="list-style-type: none"> ● Anthropometry <ul style="list-style-type: none"> ○ Meaning and concept of anthropometry ○ Types of anthropometry (Static & Dynamic) ○ Relevance to product and workspace design - Use of percentiles in designing ● Posture <ul style="list-style-type: none"> ○ Introduction to posture and Anatomy of the spine

	<ul style="list-style-type: none"> ○ Types of posture: Sitting, Standing, Sit-stand posture, Lying, Squatting, Intermediate postures ○ Guidelines for good posture ○ Poor posture and associated problems - Musculoskeletal discomfort ● Workplace Design <ul style="list-style-type: none"> ○ Principles of work station design ○ Design considerations for various workstations ○ Concept & Principles of universal design ○ Application of UD principles in designing spaces
Module 4 (Credit 1) – BASIC ERGONOMIC ASSESSMENT TECHNIQUES (Pr)	
Learning Outcomes	After learning the module, learners will be able to
	1. Measure and analyze physical parameters such as body weight, height, temperature, and blood pressure.
	2. Evaluate body composition and its relevance to health and well being
	3. Conduct musculoskeletal discomfort assessments using tools like CMDQ and NMQ.
	4. Perform work posture analysis using RULA and REBA for ergonomic risk identification.
Content Outline	<ul style="list-style-type: none"> ● Measurements of Physical Parameters - Body Weight, Height, Temperature, Blood Pressure. ● Body composition ● Musculoskeletal Discomfort Assessment - Cornell Musculoskeletal discomfort Questionnaire (CMDQ)/ Nordic discomfort Questionnaire (NMQ) ● Work Posture analysis - Rapid Upper Limb Assessment (RULA)/ Rapid Entire Body Assessment (REBA)

Assessment Pattern

Internal assessment:

Module 1 and 2: (10)

- Written Exam/class test
- Case studies – discussion/analysis of a poorly designed interior space
- Presentations/projects/ quizzes - Classroom quiz on the concept of ergonomics, MME system and FJP/FPJ concepts, history, and relevance of ergonomics in interior design.

Modules 3 and 4: (15)

- Documentation/ Journal of the practical modules – any 2 basic ergonomic assessment techniques

External Assessment:

Final external written exam – (50 marks) all 4 modules

References

1. Anne Waugh & Allison Grant (2001) : Anatomy & Physiology in Health & Illness, Churchill Livingstone, Toronto.
2. Bridger, R. (2009). Introduction to ergonomics (3rd ed.). CRC Press, Taylor & Francis Group.
3. Chakrabarti, D. (1997). Indian anthropometric dimensions for ergonomic design practice. National Institute of Design.
4. Dul, J., & Weerdmeester, B. (2008). Ergonomics for beginners: A quick reference guide (3rd ed.). CRC Press, Taylor & Francis Group.
5. Grandjean, E. (1978). Ergonomics of the home. Taylor & Francis Ltd.
6. Osborne, D. (1985). Ergonomics at work. John Wiley & Sons.
7. Salvendy, G. (Ed.). (2012). Handbook of human factors and ergonomics (4th ed.). John Wiley & Sons, Inc.
8. Sanders, M., & McCormick, E. (2013). Human factors in engineering and design (7th ed.). McGraw-Hill International Editions: Psychology Series.
9. Wickens, C., Gordon, S., Liu, Y., & Gordon-Becker, S. (2015). An introduction to human factors engineering. Longman.
10. K.C. Sawant (2001): Human Physiology, Dominant Publishers & Distribution, New Delhi 110002,
11. L.C. Jhamb. (2002) Production Management. Everest Publishing House, Mumbai Seventh Edition

Semester – V

.5.5 Minor Stream (other than major)

Course Titles	Home Decor and Furnishing (Th+Pr)
Course Credits	4 Credit's (2 Th + 2 Pr)
Course Outcomes	After going through the course, learners will be able to
	1. Apply principles of home decor and furnishing.
	2. Demonstrate design concepts to create functional and aesthetic interiors.
	3. Determine appropriate materials, fabrics, and finishes.
	4. Develop creative solutions for residential spaces.
Module 1 (Credit 1) – Introduction to Décor Styles and Design	
Learning Outcomes	After learning the module, learners will be able to
	1. Identify styles and trends in home décor.
	2. Apply the role of colour, texture, and lighting in interiors.
Content Outline	<ul style="list-style-type: none"> ● Introduction to décor styles (traditional, modern, contemporary). ● Principles of colour harmony and lighting. ● Textiles and materials in furnishing.
Module 2 (Credit 1)	
Learning Outcomes	After learning the module, learners will be able to
	1. Create layouts for living, dining, and bedroom spaces.
	2. Evaluate décor solutions for functionality and sustainability.
Content Outline	<ul style="list-style-type: none"> ● Furniture selection and placement. ● Soft furnishings: curtains, upholstery, rugs. ● Case studies of residential interiors.
Module 3 (Credit 1): Residential Design & Decoration	
Learning Outcomes	1. Select furnishings based on ergonomics and aesthetics.
	2. Calculate the cost of Décor
Content Outline	<ul style="list-style-type: none"> ● Decorate and design given Residential Space with finishes and furnishing appropriate to the space using mediums like 3D models/Sketches/ samples/ photos/etc.
Module 4 (Credit 1): Commercial Design & Decoration	
Content Outline	<ul style="list-style-type: none"> ● Decorate and design given Commercial Spaces with finishes and

	furnishing appropriate to the space using mediums like 3D models/Sketches/ samples/ photos/etc.
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Assessment Pattern

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Total Marks – 50 (Continuous Assessment)

Module 1& 2:

- Mood board creation based on décor styles.
- Short assignment on colour harmony and lighting applications.

Module 3:

- Practical exercise: Designing a room layout with furnishings.
- Case study analysis of a residential interior project.
- Presentation through Model/ PPT/ sketches/Photographs

Module 4:

- Designing commercial spaces layout
- Case study analysis of a Commercial project.
- Presentation through Model/ PPT/ sketches/Photographs

References

1. Sherrill Whiton, Interior Design and Decoration
2. Francis D.K. Ching, Interior Design Illustrated
3. The Interior Design Hand book: Furnish, Decorate and style your space by Frida Ramstedt 2020)
4. Interior Design and Decoration by Premavathy Seetharaman (2019), Publishers -CBS Publishers
5. The Complete Book of INTERIOR DECORATION- A guide for students, Interior Decorators and Home Owners by A.M. Usmani

Semester – V

.5.6 Vocational Skill Courses (VSC-4)

Course Titles	Google SketchUp (Pr)
Course Credits	2 Credit's
Course Outcomes	After going through the course, learners will be able to
	1. Demonstrate working knowledge of Sketchup and modelling tools
	2. Create 3D interior drawings
	3. Apply various materials, textures, light effects for presentation layouts
Module 1 (credit 1) – Introduction to SketchUp	
Learning Outcomes	After the module the learners can
	1. Understand 3D modelling concepts
	2. Use drawing and modification tools
Content Outline	<ul style="list-style-type: none">● Introduction to 3D modelling concepts● Sketchup interface overview● Navigation tools (orbit, pan, zoom)● Basic drawing and modification tools (push/pull, move, rotate)
Module 2 (Credit 1) – Interior Space Modelling	
Learning Outcomes	After learning the module, learners will be able to
	1. Model Walls, Doors, windows, ceilings and floors
	2. Create custom furniture models
	3. Apply materials and Texturs
	4. Create Scenes and export rendered files
Content Outline	<ul style="list-style-type: none">● Creating walls from floor plans● Adding walls and windows● Measurements and scale● Layers● Importing CAD drawings

Assessment Pattern

Practical Exercise:

- Model Bedroom/kitchen interior with furniture with final submission with
 - Floor Plan model
 - Fully furnished Interior (with applied materials)
 - rendered views

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Total Marks – 50 (Continuous Assessment)

60% - Continuous Assessment

40% - Final Presentation

References

1. SketchUp for Interior Design – by Lydia Cline
2. Google SketchUp for Dummies – Aidan Chopra
3. <https://learn.sketchup.com> (official & online learning resource)
4. SketchUp Campus
5. YouTube Channels
 - a) SketchUp official
 - b) The SketchUp essentials
 - c) Designer- focused Channels

Semester – V

.5.7 Field projects (FP)

Course Titles	Design Audit (Indoor/Outdoor) (Pr)
Course Credits	2 Credit's
Course Outcomes	After going through the course, learners will be able to
	1. Explain the concept, purpose, and scope of design audits in interior design.
	2. Apply systematic methods to evaluate interior spaces for functionality, aesthetics, and user experience.
	3. Identify design gaps and provide informed recommendations for improvement.
	4. Prepare and present professional design audit reports for various stakeholders.
Module 1 (Credit 1) – Basics of Design Audit	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain the importance and scope of design audits in interior design.
	2. Identify and apply appropriate audit methodologies for varied design projects.
	3. Develop criteria to assess interior spaces against functional and aesthetic benchmarks.
Content Outline	<ul style="list-style-type: none"> ● Introduction to Design Audit <ul style="list-style-type: none"> ○ Definition and purpose of design audits in interior design ○ Types of design audits <ul style="list-style-type: none"> ✓ Visual Audit ✓ Functional Audit ✓ Compliance-based Audit ✓ Façade Audit ✓ Sustainability Audit ○ Importance of audits in improving design quality and client satisfaction
Module 2 (Credit 1) – Applied Design Audit – Methods and Reporting	
Learning Outcomes	After learning the module, learners will be able to
	1. Conduct a structured design audit of an interior space, applying appropriate evaluation criteria.
	2. Analyse findings to identify design gaps and areas for enhancement.

	3. Prepare a professional audit report with actionable recommendations and communicate findings effectively.
Content Outline	<ul style="list-style-type: none"> ● Tools and techniques – checklists, surveys, observation, and interviews ● Setting evaluation criteria – functionality, aesthetics, ergonomics, safety, and sustainability ● Planning and documenting an audit ● Field visit protocols, site documentation, and observation techniques ● Recording and interpreting findings to identify strengths, weaknesses, and gaps ● Formulating recommendations for improvement

Assessment Pattern

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Total Marks – 50 (Continuous Assessment)

Module 1: (25 marks)

- Quiz/test – To test understanding of basic audit concepts, types, and evaluation criteria.
- Collect and explore the different types of design audits.
- Group Discussion / Case Study: Discuss a real-life or published interior design project and analyse design decisions, evaluate strengths and weaknesses, and present recommendations based on the principles of design audit.

Module 2: (25 marks)

- Conduct an audit of a selected interior or exterior space such as a classroom, office, or residential room, garden etc. Observe and evaluate space planning, furniture layout, lighting, materials, and ergonomics. Draft a design audit report summarizing findings, gaps, and recommendations for improvement.
- Make a presentation of any type of audit.

References

1. Ching, F. D. K., & Binggeli, C. (2018). Interior design illustrated (4th ed.). John Wiley & Sons. Retrieved from <https://www.wiley.com/en-us/Interior%2BDesign%2BIllustrated%2C%2B4th%2BEdition-p-9781119377207>
2. Kopec, D. (2024). Environmental psychology for design: With studio (4th ed.). Fairchild Books / Bloomsbury. Retrieved from <https://www.bloomsbury.com/in/environmental-psychology-for-design->

[9781501391859/](https://www.routledge.com/Post-Occupancy-Evaluation-Routledge-Revivals/Preiser-White-Rabinowitz/p/book/9781138886780)

3. Preiser, W. F. E., White, E., & Rabinowitz, H. (2015). Post occupancy evaluation (Routledge Revivals). Routledge. Retrieved from <https://www.routledge.com/Post-Occupancy-Evaluation-Routledge-Revivals/Preiser-White-Rabinowitz/p/book/9781138886780>
4. Winchip, S. M. (2011). Sustainable design for interior environments (2nd ed.). Fairchild Books / Bloomsbury. Retrieved from <https://www.bloomsbury.com/us/sustainable-design-for-interior-environments-second-edition-9781609010812/>

Course Syllabus

Semester – VI

.6.1 Major (Core)

Course Titles	Building Services (Pr)
Course Credits	4 Credit's
Course Outcomes	After going through the course, learners will be able to
	1. Understand hidden services in interiors (water, drainage, electricity, security, etc.).
	2. Apply practical knowledge of fixtures, fittings, and installation methods.
	3. Integrate building services into interior design projects with safety and efficiency.
Module 1 (Credit 1) – Water Supply and Sewerage	
Learning Outcomes	After learning the module, learners will be able to
	1. Apply principles of water supply and distribution.
	2. Select fittings, fixtures, and storage systems.
	3. Design drainage systems with and without septic tanks.
Content Outline	<ul style="list-style-type: none">● Principles of water supply, potable water sources.<ul style="list-style-type: none">○ Water inlet, storage tanks, distribution systems.○ Fittings and fixtures: taps, cocks, supply pipes.○ Drainage systems: septic tank and non-septic tank.○ Sanitary fixtures: water closet, wash basin, sink.○ Sanitary fittings: pipes, traps, inspection chambers, manholes.
Module 2 (Credit 1) – Electricity and Lighting	
Learning Outcomes	After learning the module, learners will be able to
	1. Apply sources of electricity and distribution systems.
	2. Demonstrate appropriate electrical fittings and fixtures.
	3. Apply wiring patterns and comply with electrical bye-laws.
Content Outline	<ul style="list-style-type: none">● Electrical installation: sources, supply, meter board, distribution board.● Lights and power points.● Electrical fittings and fixtures: wires, switches, fuses, circuit breakers, MCB, ELCB, earthing.

	<ul style="list-style-type: none"> ● Wiring patterns: open and concealed. ● Bye-laws pertaining to electrical installation.
Module 3 (Credit 1) – Security Systems	
Learning Outcomes	1. Differentiate between conventional and modern security systems.
	2. Apply knowledge of locks, alarms, and electronic systems in interiors.
Content Outline	<ul style="list-style-type: none"> ● Conventional systems: locks (dead lock, concealed, multiple key). ● Electronic locks and latest security systems. ● Audio-video systems, alarm systems.
Module 4 (Credit 1) – Other Building Services	
Learning Outcomes	1. Understand acoustics, garbage disposal, waterproofing, lifts, escalators, and fire-fighting systems.
	2. Plan alternate power sources in interiors.
Content Outline	<ul style="list-style-type: none"> ● Acoustics. ● Garbage disposal: dry & wet, chutes. ● Waterproofing: importance, sources of seepage & leakage. ● Lifts and escalators. ● Fire-fighting systems. ● Alternate power sources: UPS, generators, positions and planning.

Assessment Pattern

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Total Marks – 50 (Continuous Assessment)

Module 1: Assessment Pattern

- Sheets on water supply and drainage (5 marks).
- Survey project on hardware fittings and fixtures (5 marks).

Module 2:

- Sheets on electrical layout (5 marks).
- Symbol chart and specification (5 marks).

Module 3:

- PowerPoint project on various security systems (20 marks).

Module 4:

- Layouts for all above-mentioned services in module 4. (10 marks).

References

1. National Building Code of India.
2. E.R. Ambrose, Building Services Engineering.

Semester – VI

.6.2 Major (Core)

Course Titles	Professional Practice (Th)
Course Credits	4 Credit's
Course Outcomes	After going through the course, learners will be able to
	1. Understand financial and business management basics
	2. Understand legal and contractual responsibilities
	3. Prepare professional documents and fee proposals
	4. Identify ethical and regulatory obligations
Module 1 (Credit 1) – Introduction to Professional Practice and Industry Structure	
Learning Outcomes	After learning the module, learners will be able to
	1. Apply knowledge of professional roles and responsibilities to real world interior design practice scenarios involving clients, contractors, and consultants.
	2. Analyze the structure of the interior design industry and evaluate the accountability and professional conduct expected from an interior designer.
	3. Differentiate between various scopes of professional services and types of practice in interior design, including sole proprietorship, partnership, and private limited firms.
Content Outline	<ul style="list-style-type: none"> ● Evolution of Interior Design as a Profession <ul style="list-style-type: none"> ○ Development of interior design globally and in India ○ Role of professional bodies such as Council of Architecture ○ Role of Institute of Indian Interior Designers ● Scope of Professional Services <ul style="list-style-type: none"> ○ Residential, commercial, hospitality, retail, institutional projects ○ Full-service design vs consultancy ○ Collaboration with architects, contractors, consultants ● Types of Practice <ul style="list-style-type: none"> ○ Sole proprietorship ○ Partnership firms ○ Private limited companies ○ Design studios vs multidisciplinary firms

	<ul style="list-style-type: none"> ● Roles and Responsibilities <ul style="list-style-type: none"> ○ Interior designer as consultant ○ Duties toward client, contractor, vendors ○ Professional conduct and accountability
Module 2 (Credit 1) – Legal Framework, Contracts, and Professional Ethics	
Learning Outcomes	After learning the module, learners will be able to
	1. Interpret standard client designer agreements and identify essential clauses related to scope, fees, liability, and termination.
	2. Apply legal and ethical principles to analyze professional scenarios involving disputes, conflicts of interest, and compliance issues
	3. Evaluate ethical dilemmas in practice and justify appropriate professional decisions based on codes of conduct and industry standards.
Content Outline	<ul style="list-style-type: none"> ● Legal Aspects of Practice <ul style="list-style-type: none"> ○ Basics of contract law ○ Intellectual property rights in design ○ Copyright in drawings and concepts ○ Professional liability ● Standard Forms of Agreement <ul style="list-style-type: none"> ○ Client designer agreement ○ Scope of work definition ○ Terms and conditions ○ Termination clauses ● Codes, Regulations, and Compliance <ul style="list-style-type: none"> ○ Building by laws and local approvals ○ Fire safety norms ○ Accessibility guidelines ○ Environmental and sustainability considerations ● Professional Ethics <ul style="list-style-type: none"> ○ Conflict of interest ○ Transparency in billing and vendor selection ○ Ethical procurement practices ○ Handling disputes and complaints

Module 3 (Credit 1) – Project Management and Documentation	
Learning Outcomes	After learning the module, learners will be able to
	1. Interpret project schedules, tender documents, and consultant coordination requirements in real project scenarios.
	2. Apply project planning principles to outline timelines, documentation sets, and quality control procedures for a given case.
	3. Evaluate project risks, contractor performance, and documentation gaps to recommend corrective actions
Content Outline	<ul style="list-style-type: none"> ● Project Planning and Scheduling <ul style="list-style-type: none"> ○ Stages of interior design project ○ Design development process ○ Coordination with consultants ○ Time management tools ● Documentation and Specifications <ul style="list-style-type: none"> ○ Working drawings ○ Material specifications ○ Tender documents ● Tendering and Execution <ul style="list-style-type: none"> ○ Inviting quotations ○ Evaluating contractors ○ Site meetings and reporting ○ Quality control procedures ● Risk Management <ul style="list-style-type: none"> ○ Identifying project risks ○ Delays and cost overruns ○ Managing change orders ○ Dispute resolution basics
Module 4 (Credit 1) – Business Management and Professional Development	
Learning Outcomes	After learning the module, learners will be able to
	1. Apply basic budgeting and pricing methods to prepare a simple financial plan for a design studio.
	2. Analyze different marketing and branding strategies to identify suitable approaches for attracting clients.
	3. Develop a structured professional growth plan that supports

	long term career development in interior design.
Content Outline	<ul style="list-style-type: none"> ● Setting Up a Practice <ul style="list-style-type: none"> ○ Business registration process ○ Basic taxation and GST concepts ○ Office setup and staffing ● Financial Management <ul style="list-style-type: none"> ○ Methods of charging fees ○ Lump sum, percentage, hourly billing ○ Budget preparation ○ Cash flow management ● Marketing and Branding <ul style="list-style-type: none"> ○ Portfolio development ○ Digital presence and website ○ Client acquisition strategies ○ Networking and referrals ● Professional Growth <ul style="list-style-type: none"> ○ Continuing education ○ Membership in professional bodies ○ Building long term client relationships ○ Reputation management

Assessment Pattern

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Total Marks – 50 (Continuous Assessment)

- Assignment on drafting a client agreement and fee proposal – 15 marks
- Case study analysis of a completed interior project – 10 marks
- Unit Test -25 marks

External Total Marks – 50

References

1. John Hancock Callender: (2010) Time Saver standers for Architectural Design Data, McGraw-Hill Book company, Singapore.
2. Kilmer, R., and Kilmer, W. O. (2014). Designing interiors. 2nd ed. John Wiley and Sons.

3. Piotrowski, C. M. (2011). Professional practice for interior designers. 4th ed. John Wiley and Sons.
4. Piotrowski, C. M. (2003). Becoming an interior designer. John Wiley and Sons.
5. Seidel, D. (2009). The business of design. New York, NY: Fairchild Books, Bloomsbury Publishing.
6. Binggeli, C. (2011). Interior graphic standards. 2nd ed. John Wiley and Sons.
7. American Society of Interior Designers. (2018). Professional practice manual. Washington, DC: ASID Press.
8. Indian Institute of Interior Designers. (2019). IIID guidelines for professional practice. Mumbai: IIID Publication.

Semester – VI

.6.3 A. Major (Elective)

Course Titles	Advanced CADD (Pr)
Course Credits	4 Credit's
Course Outcomes	After going through the course, learners will be able to
	1. Develop advanced 2D CAD drawings
	2. Create detailed working drawings
	3. Prepare furniture detail drawings
Module 1 (credit 1) – Advanced 2D drafting	
Learning Outcomes	After the module the learners can
	1. Interpret architectural drawings for interior works
	2. Use advanced CAD commands (blocks, Xref, Attributes, Dynamic blocks)
Content Outline	<ul style="list-style-type: none"> ● Review of basic CAD tools ● Advanced modify tools ● Blocks & Dynamic blocks ● External references (Xref) ● Attributes & Annotation
Module 2 (Credit 1) – Interior Working drawings	
Learning Outcomes	After learning the module, learners will be able to
	1. Understand working drawings.
	2. Draft electrical, plumbing & false ceiling layouts
	3. Develop furniture design drawings with dimensions
Content Outline	<ul style="list-style-type: none"> ● Furniture Layout ● Electrical & plumbing Layouts ● False ceiling layouts ● Interior Elevations
Module 3 (Credit 1) - Detailing	
Learning Outcomes	After learning the module, learners will be able to
	1. Recognize material specifications and detailing techniques
	2. Prepare scaled printable sheets

	3. Develop detailed joinery drawings
Content Outline	<ul style="list-style-type: none"> ● Wardrobe detailing ● Modular Kitchen design drawings ● Joinery details ● Material specifications
Module 4 (Credit 1) - Modelling & Visualization	
Learning Outcomes	After learning the module, learners will be able to
	1. Convert 2D drawings into 3D models
	2. Apply rendering and visualization basics
	3. Present a fully documented Interior Project
Content Outline	<ul style="list-style-type: none"> ● Introduction to 3D workspace ● Extrude, Revolve, Sweep ● UCS management ● Converting 2D to 3D ● Material & lighting basics ● Rendering basics

Assessment Pattern

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Total Marks – 100 (Continuous Assessment)

- **Module 1:** Continuous Assessment
- **Module 2:** 2D drawings (plans for electrical, plumbing, false ceiling and interior elevations)
- **Module 3:** Working drawing of one wardrobe, working drawing for one kitchen with details
- **Module 4:** Presentation of rendered interior space (Kitchen/Bedroom/Living room)

References

1. AutoCAD and its Applications Comprehensive – Terence M. Shumaker & David A. Madsen
2. Mastering AutoCAD 2024 and AutoCAD LT 2024 – George Omura & Brian C. Benton

3. Residential Interior Design: A guide to Planning spaces – Maureen Mitton & Courtney Nystuen
4. Time Save Standards for Interior Design and Space Planning – Joseph DeChiara et al.
5. Architects Data – Ernst Neufert
6. Online & Digital Learning Resources
 - a) Autodesk Official YouTube Channel
 - b) CAD in Black
 - c) SourceCAD

Semester – VI

.6.3 B. Major (Elective)

Course Titles	Biophilic Interiors (Pr)
Course Credits	4 Credit's
Course Outcomes	After going through the course, learners will be able to
	1. Enhance user wellbeing and indoor environment quality
	2. Demonstrate skills in using nature imitating elements for interiors
	3. Promote sustainable behaviour through designs
Module 1 (credit 1) – Principles of Biophilic	
Learning Outcomes	After the module the learners can
	1. Integrate biophilic patterns to create health promoting sustainable interiors
	2. Apply principles innovatively fostering self-directed learning
Content Outline	<ul style="list-style-type: none"> ● Application of Biophilic Patterns <ul style="list-style-type: none"> ○ Natural Light ○ Indoor plants ○ Water features ○ Organic materials
Module 2 (Credit 2) – Practical Application of Elements	
Learning Outcomes	After learning the module, learners will be able to
	1. Design spaces incorporating biophilia for better health, lighting, etc.
	2. Experiment with art principles
Content Outline	<ul style="list-style-type: none"> ● Designing interiors with Biophilic Elements <ul style="list-style-type: none"> ○ Techniques for installation of Living walls ○ Vertical Gardening ○ Hydroponics ○ Plant selection (based on light conditions)
Module 3 (Credit 1) - Evaluation of Design	
Learning Outcomes	After learning the module, learners will be able to
	1. Evaluate designs for occupant well-being using metrics like air quality and natural connections
	2. Maximize environmental features

	3. Communicate benefits to stakeholders
Content Outline	<ul style="list-style-type: none"> ● Case Studies of Biophilic projects ● Sustainable V/S Biophilic distinctions ● Health impacts (improved concentration, well-being)
Module 4: Presentation of Biophilic Projects	
	<ul style="list-style-type: none"> ● All elements used in design project ● Explain all features of environment used ● Outcome of the project

Assessment Pattern

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Total Marks – 100 (Continuous Assessment)

- **Module 1:** Presentation of Principles used in Biophilic Interiors
- **Module 2:** Design and present a given space design (residential/ workspace) highlighting the use of different elements. (weightage)
 - Use of elements (light, etc) - 30%
 - Evidence of well-being benefits - 25%
 - Creativity (innovation) - 25%
 - Presentation - 20%
- **Module 3:** Case study
- **Module 4:** Presentation of one existing design

References

1. "Nature Inside: A Biophilic Design Guide" by William D. Browning and Catherine O. Ryan (2021)
2. "Biophilic Design: The Theory, Science and Practice of Bringing Buildings to Life" by Stephen R. Kellert (2008)
3. "The Practice of Biophilic Design" by Stephen R. Kellert (2015)
4. Nasis Books (nasisbooks.com): "Nature Inside: A Biophilic Design Guide" by William Browning
5. BooksWagon (Bookswagon.com): "Biophilic Design: The Theory, Science and Practice" by Stephen Kellert
6. Courses and Videos (short modules and talks)

Semester – VI

.6.4 Minor Stream

Course Titles	Basics of Workspace Design (Th)
Course Credits	2 Credit's
Course Outcomes	After going through the course, learners will be able to
	1. Understand the fundamental relationship between human physiology and workspace layout
	2. Apply anthropometric data to design workspace
	3. Evaluate environmental factors that influence employee productivity
	4. Design a holistic, ergonomic workspace.
Module 1 (Credit 1) – Fundamentals of Workspaces design	
Learning Outcomes	After learning the module, learners will be able to
	1. Define workstation and workspace and identify various work types
	2. Application of anthropometry in workspace design
	3. Utilize percentiles body measurements to determine optimal desk heights and reach zones
Content Outline	<ul style="list-style-type: none"> ● Introduction to workspace <ul style="list-style-type: none"> ○ Definition of workstation and Workspace ○ Types of work ○ Movement at Work ● Introduction to Ergonomics and Anthropometry <ul style="list-style-type: none"> ○ Definition and overview of ergonomics ○ Anthropometry and types of Anthropometry (Using human body measurements to determine desk heights and clearance zones). ○ Applying Anthropometric data for desk heights, monitor levels, and reach zones.
Module 2 (Credit 1) – Work Environmental & Aesthetics	
Learning Outcomes	After learning the module, learners will be able to
	1. Understand relationship between ergonomic work environment and productivity
	2. Develop a workspace plan that balances static workstation design
Content Outline	<ul style="list-style-type: none"> ● Environmental Factors:

	<ul style="list-style-type: none"> ○ Lighting for productivity (Lux levels, Glare control). ○ Color: Impact of Colour Psychology and lighting ○ Noise and thermal comfort ○ Acoustics & Air Quality ○ Biophilic Elements: <ul style="list-style-type: none"> ● Principles of Effective Workspace Design
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Assessment Pattern

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

External Total Marks – 50

References

1. The Key of Interior Design (Illustration of Methods & Principles) by Nikita Mittal
Publisher: Standard Publishers Distributors
2. Ergonomics for the Layman: Applications in Design by Prabir Mukhopadhyay
Publisher: CRC Press / Taylor & Francis
3. Indian Anthropometric Dimensions: For Ergonomic Design Practice by Debkumar Chakrabarti
Publisher: National Institute of Design (NID), Ahmedabad
4. Work Study and Ergonomics by S.K. Sharma and Savita Sharma
Publisher: S.K. Kataria & Sons
5. The Healthy Office: Turning Workspaces Into Happiness and Success Spaces by Ninad Tipnis
Publisher: Notion Press
6. Ergonomics for Design and Innovation: Humanizing Work and Work Environment
Editors: Debkumar Chakrabarti, Sougata Karmakar, and Urmi R. Salve
Publisher: Springer Nature
7. Work Study and Ergonomics by P.C. Tewari
Publisher: Abhishek Publications
8. Ergonomics and Appropriate Technologies by Aditi Vats, Chhaya Shukla, and Sandhya Rani
Publisher: New India Publishing Agency (NIPA)
9. Ergonomics Principles in Design: An Illustrated Fundamental Approach by Prabir Mukhopadhyay
Publisher: CRC Press / Taylor & Francis
10. Future of Workplace Design: Placemaking for a GenBlend Workforce by Abi Roni
Publisher: Stardom Books
11. Creative Indian Offices (Vol 1 & 2)
Publisher: IAG - Interior Architecture Group
12. Designing and Building Office Spaces – Your Complete Handbook
Publisher: Phi Designs
13. Workspace Made Easy: A Clear and Practical Guide on How to Create a Fantastic Work Environment by Kursty Groves and Neil Usher
Publisher: Routledge (2024/2025)
14. The Workplace You Need Now: Shaping Spaces for the Future of Work by Sanjay Rishi, Benjamin Breslau, Peter Miscovich
Publisher: Wiley
15. Change Your Space, Change Your Culture: How Engaging Workspaces Lead to Transformation and Growth by Rex Miller, Mabel Casey, Mark Konchar
Publisher: Wiley (2014)
16. Detail in Contemporary Office Design by Drew Plunkett and Olga Reid
Publisher: Laurence King Publishing (2014)

17. The Designer's Workspace: Ultimate Office Design by Douglas Brent Caywood
Publisher: Routledge/Elsevier (2003/2004)
18. Workplaces and Workspaces: Office Design That Work by Justin Henderson Publisher:
Rockport Publishers (1998)

Semester – VI

.6.5 Minor Stream

Course Titles	Interior Product Design (Th+Pr)
Course Credits	4 Credit's (2 Th + 2 Pr)
Course Outcomes	After going through the course, learners will be able to
	1. Apply the fundamental elements and principles of design to create innovative, user-centric interior products.
	2. Demonstrate proficiency in manual sketching and digital CAD software (AutoCAD/Rhino)
	3. Evaluate and apply anthropometric data (5th to 95th percentile) to ensure product functionality and human comfort.
	4. Analyze the properties of primary materials (wood, metal, glass, ceramics)
Module 1 (Credit 1) – Fundamentals of design	
Learning Outcomes	After learning the module, learners will be able to
	1. Draft 2D and 3D shapes with accurate shadow and light projections to simulate realism.
	2. Identify and select appropriate primary materials based on their structural and aesthetic properties for specific interior applications.
	3. Apply the Design Thinking Process to define user needs and ideate solutions that prioritize Functionality and Simplicity.
Content Outline	<ul style="list-style-type: none"> ● Introduction to Design: <ul style="list-style-type: none"> ○ Elements of design ○ Understanding 2D and 3D shapes, shadows, and light projections. ● Introduction to primary materials: <ul style="list-style-type: none"> ○ Wood, metal, glass, and ceramics. ○ Introduction to the Design Thinking Process ● Core Principles of good Design: <ul style="list-style-type: none"> ○ Innovative, Functionality, Aesthetics, User-Centricity, Simplicity & Clarity
Module 2 (Credit 1) – Human-Centered Design	
Learning Outcomes	After learning the module, learners will be able to
	1. Apply Human Factors to ensure product usability and comfort.
	2. Understand the process of product design

	3. Calculate dimensions for products that accommodate a diverse range of body types using Static and Dynamic Anthropometry.
Content Outline	<ul style="list-style-type: none"> ● Human Factors & Ergonomics: <ul style="list-style-type: none"> ○ Introduction to Anthropometry: Static vs. Dynamic measurement ● The Product Design Process ● Designing for the 5th and 95th percentiles
Module 3 (Credit 1) – Practical: Drawing & Sketching	
	<ul style="list-style-type: none"> ● Freehand Drawing & Sketching: Developing rapid ideation skills and perspective drawing. ● Sketching an existing interior product (e.g., a chair or lamp) to understand its components.
Module 4 (Credit 1) – Practical	
	<ul style="list-style-type: none"> ● Computer-Aided Design (CAD): designing a product in AutoCAD for 2D drafting and 3D modelling tools like Rhino or Sketch Up. ● Prototype Development: Hands-on fabrication using 3D printing (Developing a small product e.g., a desktop organizer)

Assessment Pattern

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Total Marks – 50 (Continuous Assessment)

External Total Marks – 50

References

1. Indian Anthropometric Dimensions for Ergonomic Design Practice by Debkumar Chakrabarti Publisher: National Institute of Design (NID), Ahmedabad
2. Ergonomics for the Layman: Applications in Design by Prabir Mukhopadhyaya Publisher: CRC Press (Taylor & Francis Group)
3. Innovation By Design: Lessons from Post Box Design & Development by B. K. Chakravarthy & Janaki Krishnamoorthi Publisher: Springer India
4. Design Thinking: A Framework for Applying Design Thinking in Problem Solving by Anuja Agarwal Publisher: Cengage Learning India
5. Design Your Thinking by Pavan Soni Publisher: India Portfolio (Penguin Random House India)
6. Elements of Spacemaking by Yatin Pandya Publisher: Mapin Publishing
7. Interior Design: Principles and Practice by M. Pratap Rao Publisher: Standard Publishers Distributors

8. The Key of Interior Design by Nikita Mittal Publisher: Standard Publishers Distributors
9. Innovative Indian Interiors Publisher: IAG / Amazon Asia-Pacific

Semester – VI

.6.6 On-Job Training (OJT)

Course Titles	Internship (Pr)
Course Credits	4 Credit's
Course Outcomes	After going through the course, learners will be able to
	1. Apply professional ethics, workplace standards, and communication skills in real design office settings.
	2. Develop complete design documentation sets including concepts, drawings, and BOQs for live projects.
	3. Execute site coordination, budgeting, and supervision tasks using industry practices.
	4. Evaluate internship experiences to build a professional portfolio and career action plan.
Module 1 (Credit 1) – Professional Foundations And Industry Readiness	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain the structure, roles, and workflow of professional interior design firms.
	2. Apply professional ethics and workplace conduct standards in internship environments.
	3. Prepare formal documentation including emails, meeting minutes and drawing records.
	4. Create and present a professional portfolio aligned with internship expectations.
Content Outline	<ul style="list-style-type: none"> ● Understanding the Interior Design Profession <ul style="list-style-type: none"> ○ Scope of practice in residential, commercial, retail, hospitality ○ Roles within a design firm ○ Design process from concept to handover ● Workplace Ethics and Professional Conduct <ul style="list-style-type: none"> ○ Client confidentiality ○ Intellectual property ○ Professional codes of Ethics ○ Time management and workplace discipline ● Communication and Documentation <ul style="list-style-type: none"> ○ Professional email writing ○ Meeting minutes ○ Drawing documentation standards

	<ul style="list-style-type: none"> ● Portfolio and Interview Readiness <ul style="list-style-type: none"> ○ Structuring an internship portfolio ○ Presenting technical drawings and 3D work ○ Mock interviews ○ Resume refinement
Module 2 (Credit 1) – Design Office Operations And Project Execution	
Learning Outcomes	After learning the module, learners will be able to
	1. Interpret client briefs and site data to define project requirements.
	2. Develop design concepts using mood boards, materials, and narratives.
	3. Produce technical drawings including layouts, electrical plans, and detailing.
Content Outline	<ul style="list-style-type: none"> ● Site Analysis and Client Brief <ul style="list-style-type: none"> ○ Conducting site visits ○ Measuring and documentation ○ Client brief development ○ Needs analysis ● Concept Development <ul style="list-style-type: none"> ○ Mood boards ○ Material selection ○ Colour strategy ○ Design narratives ● Working Drawings and Technical Detailing <ul style="list-style-type: none"> ○ Furniture layouts ○ Electrical layouts ○ Reflected ceiling plans ○ Joinery details ● Vendor Coordination and BOQs (Bill of Quantities) <ul style="list-style-type: none"> ○ Preparing BOQs ○ Material sourcing ○ Vendor comparison ○ Cost tracking
Module 3 (Credit 1) – Site Experience And Project Management	

Learning Outcomes	After learning the module, learners will be able to
	1. Identify construction systems and materials used in interior projects.
	2. Apply drawing knowledge to supervise and coordinate site activities.
	3. Analyze project budgets to monitor costs and propose improvements.
	4. Implement safety standards and risk assessment procedures at project sites.
Content Outline	<ul style="list-style-type: none"> ● Construction Systems and Materials <ul style="list-style-type: none"> ○ Flooring systems ○ Wall finishes ○ Ceiling systems ○ Sustainable materials ● Site Supervision and Coordination <ul style="list-style-type: none"> ○ Reading construction drawings ○ Coordinating with contractors ○ Handling site conflicts ○ Quality checks ● Budgeting and Cost Control <ul style="list-style-type: none"> ○ Estimation basics ○ Variation orders ○ Tracking cost overruns ● Health, Safety, and Risk Management <ul style="list-style-type: none"> ○ Site safety norms ○ Risk assessment ○ Legal compliance ○ Documentation
Module 4 (Credit 1) – Professional Growth, Reflection And Industry Transition	
Learning Outcomes	After learning the module, learners will be able to
	1. Evaluate internship experiences through structured reflection and feedback.
	2. Develop professional networks using industry platforms and associations.
	3. Formulate basic business strategies for freelance or independent

	practice.
	4. Present a comprehensive internship portfolio demonstrating applied learning.
Content Outline	<ul style="list-style-type: none"> ● Reflective Practice <ul style="list-style-type: none"> ○ Weekly internship journal ○ Learning outcome mapping ○ Skill gap analysis ○ Mentor feedback integration ● Networking and Industry Engagement <ul style="list-style-type: none"> ○ Professional associations such as Institute of Indian Interior Designers ○ LinkedIn optimization ○ Industry events ○ Building long term professional relationships ● Entrepreneurship and Freelancing Basics <ul style="list-style-type: none"> ○ Setting up a small design practice ○ Client acquisition ○ Fee structuring ○ Contracts ● Final Internship Presentation <ul style="list-style-type: none"> ○ Portfolio compilation ○ Project documentation ○ Lessons learned ○ Career action plan

Assessment Pattern

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Internal Total Marks – 50 (Continuous Assessment)

- File submission – Report of internship day wise
- Presentation

External Total Marks – 50 (by the employer)

Feedback will be given covering the following points

- Preparing resume
- Knowledge acquired

- Interest and willingness to learn
- Regularity and Punctuality
- Quality of work done

References

1. American Society of Interior Designers (2020). ASID code of ethics and professional conduct. Washington, DC: Author.
2. Francis D. K. Ching, and Cassandra Binggeli (2018). Interior design illustrated. 4th ed. John Wiley and Sons.
3. Rosemary Kilmer, and Otie Kilmer (2014). Designing interiors. 2nd ed. John Wiley and Sons.
4. Christine M. Piotrowski (2016). Professional practice for interior designers. 5th ed. John Wiley and Sons.
5. Tatiana Poldma (2013). Meanings of designed spaces. New York, NY: Fairchild Books.
6. International Interior Design Association (2021). Code of ethics. Chicago, IL: Author.