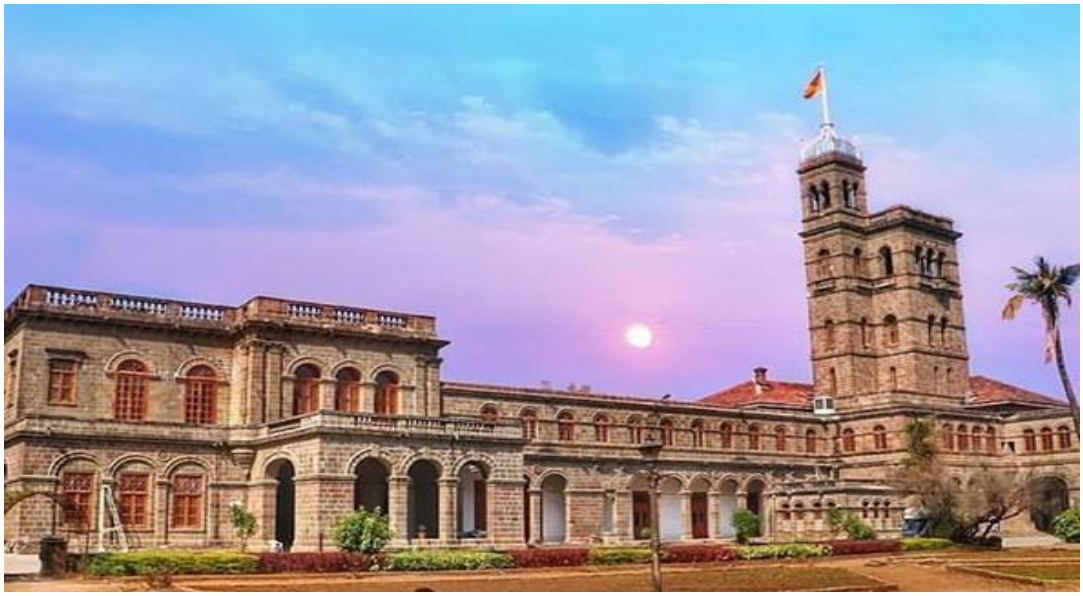
सावित्रीबाई फुले पुणे विद्यापीठ

Savitribai Phule Pune University,Pune, Maharashtra, India

Faculty of Science andTechnology



Third Year B. Design (Interior Design)

2025 Pattern

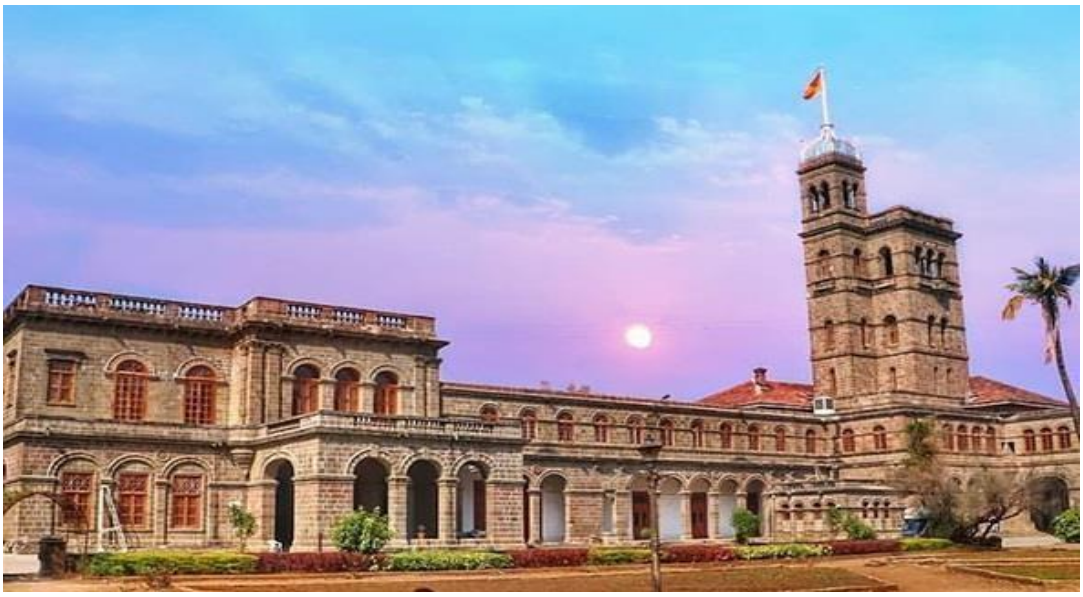
Syllabus Detail

(With effect from Academic Year 2027-28)

सावित्रीबाई फुले पुणे विद्यापीठ

Savitribai Phule Pune University
Faculty of Science and Technology

Semester - V



DETAILED SYLLABUS OF B.DES. (INTERIOR DESIGN)

THIRD YEAR - SEMESTER V

(2025 Pattern)

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DESIGN PROJECT 3		
COURSE CODE	**3202735 (SV)**	
TEACHING SCHEME	**EXAMINATION SCHEME**	
TOTAL CONTACT HOURS PER WEEK **2 Lectures + 10 Studio** **TOTAL = 12 hrs/week**	**CIE** **(SV)**	**125** **125**
TOTAL MARKS	**250**	
TOTAL CREDITS	**7**	

COURSE OBJECTIVE:

This subject aims at introducing the design of commercial and retail spaces.

The course will encourage students, to handle multiple users and public at large. It will make them understand the process, methodology to be followed for the design of retail/commercial spaces.

Design parameters in terms of typology: Any commodity like garment, jewelry, company showrooms, departmental stores etc.

Area minimum 3000 - 4000sq.ft.

Multi levels/ mezzanine shall be incorporated.

COURSE CONTENT:

UNIT 1: Detailed study of selected Retail Typology and its requirements. Study of Anthropometry and Ergonomics in retails.

UNIT 2: Case study and analysis of designed retails, branded showrooms.

UNIT 3: Design development: Site Analysis, Design brief, zoning and circulation diagrams, mood board, conceptual sketches etc.

UNIT 4: Exploring volumes: To enable students to understand space in terms of volume and planes.

UNIT 5: Detailed drawings for Design solutions.

UNIT 6: Incorporation of Interior Services learnt like Plumbing, Electrification, Firefighting and schematic layout of Air conditioning in Design Project.

SUBMISSION REQUIREMENT

1. Study of human anthropometry and ergonomics in Retail spaces. **(Data Collection)**
2. Analytical study of typical Retail interiors with respect to activities, functions and requirements etc. **(Case Studies)**

(25%)

3. Site Analysis: Documenting Site and its context (through Drawings and photo Documentation)
4. Design concepts, Formulation of Design Brief and Design development **(60%)**
5. **Drawings** –Plans, Sections, Details, Colour & Material Pallet, Views, Service Details , etc

6. Presentation drawings of design project. **(15%)**

METHOD OF INSTRUCTION

Study of anthropometry can be done through Class exercises.
Designed Retail Interiors to be taken for Case Studies.
Theme oriented designs may also be considered.
In addition to Live Case Studies 2 to 3 Case Studies can be done online/ Book as well.
Case Study visit to be done in Unit 2.
Site visit to be done in Unit 3.

Online Lectures for some topics from NPTEL, Coursera can be organized.

COURSE OUTCOME:

The students will develop a comprehensive understanding of Retail interiors combining aesthetics and functionality. They will learn about contemporary trends and material pallet used in retail environments.

Recommended Readings:

- Basics Interior Design 01: Retail Design by Lynne Mesher
- Shops and Boutiques 2000 by Susan Abramson, Marcie Stuchin
- Basic design and Anthropometry by Shirish Vasant Bapat.
- The measure of men and women – human factors in design by Allvin R. Tilley and henry Dreyfuss and associates.
- Visual Dictionary of Architecture by D. K. Ching.
- Interior design by Ahmed Kasu.
- Interior design by D K Ching.
- Time savers standards of interior design
- Neuferts standards.

MATERIAL & CONSTRUCTION TECHNIQUES 3		
COURSE CODE	**3202736 (SV)**	
TEACHING SCHEME	**EXAMINATION SCHEME**	
TOTAL CONTACT HOURS PER WEEK **2 Lectures + 4 Studio** **TOTAL = 6 hrs/week**	**CIE** **SV**	**50** **50**
TOTAL MARKS	**100**	
TOTAL CREDITS	**4**	

COURSE OBJECTIVE:

This course will help students understand structural systems of interior elements of buildings, materials used in their construction, construction techniques and details.
It will also develop an understanding of sustainable materials and constructions giving students insights on environmentally responsive and efficient designs.

COURSE CONTENT:

UNIT 1 : Materials used for construction of Partitions and Wall Paneling : Timber, aluminium extrusions, mild steel, stainless steel, plywood, fiber boards, particle boards, MDF/HDF, corean sheets, PVC sheets, acrylic sheets, ACP, high pressure laminate sheets, wood plastic composite sheets, Bakelite sheets, types of glass, alabaster sheets, finishing materials like charcoal sheets, rattan, 3D engraved sheets, wave boards etc. their properties and uses.

UNIT 2: Materials used for construction of False Ceilings : Aluminium false ceiling sections, timber, mild steel sections, plywood/ MDF, gypsum sheets, modular false ceiling tiles, glass, alabaster sheets etc. their properties and uses.

UNIT 3: Wall Cladding : Cladding materials like stone, tiles, engineered stones, composite cladding materials etc. Their properties and uses, process of applications

UNIT 4: Green Materials : Requirements of a sustainable material (lifecycle, extraction of raw materials, production and disposal). Cane, Bamboo, Cork, straw, jute, Cob, Adobe, recycled/ reclaimed timber, recycled glass, recycled metals, recycled plastic, semi-synthetic materials etc. their properties and uses.

UNIT 5: Paints and Polishes : Types of paints like distempers, cement paint, enamel paint, emulsion paint, latex paint, acrylic paint, metallic paint, anti-fungal paint, low VOC paint, bituminous paint etc. Types of polishes like varnish, wax polish, shellac polish, melamine polish, lacquer polish, polyurethane polish etc. Their properties and uses, process of applications.

COURSE OUTCOME

This course helps the students to understand materials, their properties, processes of application and the construction techniques required to execute the designs to fulfill specific requirements.

SUBMISSION REQUIREMENT

- Unit 1 to 5 : Journal writing, Market survey
- Sheet work on Paneling with materials learnt with different material combinations and working details.
- Sheet work on Partition with materials learnt with different material combinations and working details.
- Sheet work on False ceiling with materials learnt with different material combinations and working details.

Note : It is desirable/ suggested to take Design Project 2 as a base for detailing Panelling, Partitions and False Ceiling.

METHOD OF INSTRUCTION

Regular Site visits, with focus on construction methods and material application shall be organized.

Vendor interactions to give exposure to Brands, materials and development in technologies shall be arranged.

Online Lectures for some topics from NPTEL, Coursera can be organized.

Recommended readings:

- Engineering materials by K.P.Roy and Chaudhari.
- Materials of construction by D.N.Ghose.
- Architectural metals by l.William Zabner.
- Building construction by W.B.Mckay- Vol 1 to 4.
- Building construction by Chudley.
- Building materials by Sushilkumar.
- Woodworkers guide to furniture design.

INTERIOR SERVICES 2		
COURSE CODE	**3202737 (P) 3202738 (SS)**	
TEACHING SCHEME	**EXAMINATION SCHEME**	
TOTAL CONTACT HOURS PER WEEK **2 Lectures + 2 Studio** **TOTAL = 4 hrs/week**	**PAPER** **In Sem** **End Sem**	 **30** **70**
	Total	**100**
PAPER	**SS** **CIE** **SS**	 **50** **50**
	Total	**100**
TOTAL MARKS	**200**	
TOTAL CREDITS	**3**	

COURSE OBJECTIVE:

This course aims towards acquainting the students with necessary building services required for Interior projects.

To develop an understanding of balance between comfort, aesthetics and safety pertaining to interior services.

COURSE CONTENT :

a) Electrification & Lighting

b) Air conditioning

c) Acoustics

UNIT 1 : Electrification & Lighting

1. Calculating lumens requirement for each room depending on function and furniture placement.
2. Preparing a lighting layout indicating positions of light fixtures in details.

(current or previous design project for making complete understanding of lighting placement can be taken).

3. Energy efficient lighting systems.
4. Security and surveillance systems.

UNIT 2 : Air-conditioning Systems:

1. Thermal comfort parameters for Human beings. Principles of Natural Ventilation.
2. Understanding concept of Air-conditioning. Requirement of Heating and Cooling of a space.
3. Types of systems which can be used in interior services- small scale to large scale depending on requirements.
4. Selection process for air conditioning system.
5. Layout of systems, placement of equipment.

UNIT 3 : Acoustics in Interiors:

1. Understanding principles of Acoustics and its importance in Interiors.
2. Introduction to room acoustics, sound reflection, diffraction, dispersion, reverberation time, reverberation time calculations, Sabine's equation, Sound isolation, reduction, insulation
3. Different materials absorption quality and how to choose correct acoustic material, details of installation.

SUBMISSION REQUIREMENT

UNIT 1 : Journal writing with sketches on all the topics covered.
Sheetwork on Electrification layout.
Market survey report on Light fittings and components.
UNIT 2 : Journal writing with sketches on all the topics covered.
Sheetwork on Air conditioning solution.
UNIT3 : Journal writing with sketches on all the topics covered. Case study analysis of Auditorium/Home Theatre/ Recording studio.

METHOD OF INSTRUCTION

Site visits, with focus on Services to be undertaken.
Vendor interactions to give exposure to Brands, materials and development in technologies shall be arranged.
Earlier/ Current Design programmes can be taken for implementation of Electrification/ AC layouts.

COURSE OUTCOME :

The students will be able to develop understanding of different Interior Services. They will be able to read and create drawings for proper execution of Services on site.

Recommended readings:

- Environment and services , by: Peter Busberry.
- Lighting , by : Elizabeth wihide.
- Light fantastics , by:max keller
- Lighting design by Jeremy Myers
- ABC of air conditioning , by: Ernest Tricomi
- Heating and air conditioning of buildings.
- Environment science , by: smith,Philips,and sweenay.
- Mechanical and electrical equipments in building.
- Environmental sciences , by:peter busberry.
- Principles of air conditioning by: V.Paul Lang.
- Concepts in architectural acoustics by: M. Davidegan.
- Acoustics and sound insulation by: Eckard Mommerts, Dr.Ing Muller BBM.pl
- Architectural acoustics illustrated by Ermann, Michae

CRAFT & CULTURAL DOCUMENTATION		
COURSE CODE	**3202739 (SV)**	
TEACHING SCHEME	**EXAMINATION SCHEME**	
TOTAL CONTACT PERIOD PER WEEK 1 Lectures + 4 Studio TOTAL = 5 hrs/week	Sessional CIA SV	75 75
PAPER	NIL	
TOTAL MARKS	**150**	
TOTAL CREDITS	**3**	

COURSE OBJECTIVE :

1. To establish an appreciation and understanding of our rich culture, heritage and vast craft techniques.
2. To expose the students to the gamut of contextually responsive space design of a community, craft activity and the role of design thereof.
3. To evaluate the possibility of extending the traditional material, construction and craft techniques to contemporary application.
4. To equip the students to undertake field research using suitable research tools wherein they directly interact with communities, artisans and skilled craftsman to collect, analyze and record data.

COURSE CONTENT:-

1. Traditional crafts and techniques -Detailed description and visual documentation of traditional craftsmanship, including materials used and techniques employed.
2. Architectural styles – Examination of historical and contemporary architectural styles within a cultural context, highlighting key features and influences.
3. Cultural symbols and meanings – Examination of symbols, motifs and their cultural significance in are and architecture.
4. Historical context – In depth analysis of the historical social and political context shaping cultural expressions in art and architecture.
5. Interviews and oral histories – Documentation of personal narratives, interviews with artisans, architects and community members to capture oral histories and first- hand experiences.
6. Photography and visual records – High quality visual documentation, including photographs, sketches, and diagrams, to capture the aesthetics and details cultural artifacts and architectural marvels.
7. Documentation of rituals and traditions – Record rituals, ceremonies, and eruditions associated with art and architecture, providing insights into their cultural significance.
8. Evolution and adaptation – Examining how cultural elements have evolved and adapted

over time, considering contemporary influences and changes.

9. Cultural contextualization – Placing artistic and architectural works within their broader cultural, considering the impact of globalization and modernization.
10. Collaborative approaches – Exploring collaborative efforts between artists, architects and local communities to preserve and promote cultural heritage.

METHODOLOGY:

Field work, Analysis and synthesis, Discussions and feedback sessions, Documentation.

SUBMISSION REQUIREMENT :

Report writing & sketches about the craft community and craft identified.

COURSE OUTCOME:

1. Students will gain a deeper understanding and appreciation of various culture and traditions and histories through the study of craft, practices unique to different religions and communities.
2. Students should understand cross culture understand and socio- economic Impact
3. Students should be majorly focus on hands on experience of craft making.

Recommended readings :

- Jaitly, Jaya. “The Craft Traditions of India”, Lustre Press Pvt.Ltd, New Delhi, 1990
- Jaitly Jaya. “Crafts Atlas of India”, Niyogi Books, N.Delhi, 2012
- Khanna, P. “Material and Technology – An inventory of selected materials and technologies for building construction”, Project report to CDKN, Development Alternatives Group, New Delhi, 2011
- Mehrotra, Lakhan and Vajpayee, Raghvendra (ed.) “Communication Through The Ages – An Indian Perspective”, Aryan Books International, new Delhi in association with Media Centre for Research and Development, Gurgaon, 2009
- Pandya, Yatin. “Concepts of Space Making in Traditional Indian Architecture”, Mapin Pub.Pvt.Ltd., Ahmedabad, 2005
- Saraf, D.N. “Indian Crafts – Development and Potential”, Vikas Publishing House Pvt. Ltd., New Delhi, 1982
- Ranjan, Aditi and Ranjan, M.P. (Ed.) “Crafts of India: Handmade in India”, Council of Handicraft Development Corporations (COHANDS), New Delhi, Development Commisioner (Handicrafts), New Delhi
- Sparke P, Introduction to Design &Culture in the 20thcentuary, Routledge, 1986.
- Kosambi D.D; The culture & civilization of Ancient India in Historical outline, UBS publishers, 2007

- People History of India-Vol 1 to 7 by Irfan Habib, Tulika books.
- Indian Tales by Romila Thaper
- Indian culture as heritage – contemporary pasts, by Romila Thaper.

RESPONSIVE ENVIRONMENTS		
COURSE CODE	**3202740 (SS)**	
TEACHING SCHEME	**EXAMINATION SCHEME**	
TOTAL CONTACT HOURS PER WEEK **1 Lectures + 2 Studio** **TOTAL = 3 hrs/week**	**Sessional CIA** **SS**	**50** **50**
	PAPER (P): Nil	
TOTAL MARKS	**100**	
TOTAL CREDITS	**2**	

COURSE OBJECTIVE:

A Designer works in a comprehensive environment and not in isolation.
He works within a context, society & environment.
1. The objective of the course is to sensitise & develop awareness of responsibility towards today's environment & Society.
2. It aims to make understand role of a Designer for problem solving, for nurturing healthy societies, as a bonding element for society, and care taker of environment.

COURSE CONTENT:

1. Relation between Society, culture and in turn with the field of Design.
2. Identify the key approaches used in the study of design and society.
3. Ideas and thoughts relating to design of Indian society.
4. Urban and rural contexts-scopes, requirements, challenges, implications of lifestyle on the environment.
5. To understand issues of cross – cultural exchange in design and society – viz influences, transformation, inspiration, effects, etc.
6. To introduce the Concept of constant need of more resources and materials for living- 'Consumerism', and its impacts.
7. Introduce the basic concept of Ecology & Environment. Environmental Degradation, their basic causes and sustainable solutions.
8. Introduction to sustainable alternative materials with low embodied energy for environmentally responsive designs.
9. Environmental crisis, challenge and opportunity - Greenhouse effect, Carbon credits, Carbon sequestration. Analysing position of India to contribute / lead.
10. Environmental Pollution - Impact of pollution in the local environment and at the global level environment. To understand individual role in pollution & measures to mitigate.
11. To introduce environmental Impact Analysis, Notification of government of India Environmental Protection Act for Air, water, forest and wild life. Impact assessment methods. Environmental priorities in India, EIA guidelines. Examples in India.
12. The role of Design for a sustainable world.

SUBMISSION REQUIREMENT:

- Written Assignments / Reports
- Oral Presentation / Debates.

COURSE OUTCOME:

The students will equip themselves to identify the contribution for environment & society. They will be able to position themselves and their future work in the larger context.

RECOMMENDED READINGS:

- Global water pollution: perspectives & cases by Anand Sandip Lahari
- Environmental studies :basic concepts by Ahluwalia V.K.
- Environmental science earth as a living planet by Botkin, Daniel B & Keller
- Bamboo: Architecture & design by Broto,Eduard
- Climate Change Biology by Hannah, lee
- Ecological Restoration :principles values & structure of an emerging profession by Clewell andre &Aronson James
- Ecosystems & human well-being by Reid,walter &Mooney H Arold A. & (MEA)
- A text book of environmental Architecture by Dr. Kishore Pawar
- Urban Environments-design-2 by Lim.Sung Bin
- Sociology by Schaefer Richard T
- Voluntary environmental management by Morelli John
- Landscape of planning environmental applications by Marshall William
- Management of municipal solid waste by Ramchandra T V
- An introduction to water pollution by S V Rao
- Urban design Green dimensions by Moughtin ,Cliffl& Shirley Peter
- Biodiversity communities & climate change by Kala Chandra Prakash
- Vernacular traditions contemporary architecture by Tipnis Aishwarya
- Life cycle Assessment by Simonen Kathrina
- Rural Modern by Abraham Russell

ELECTIVES 3		
COURSE CODE	**3202741(SS)**	
TEACHING SCHEME	**EXAMINATION SCHEME**	
TOTAL CONTACT HOURS PER WEEK **2 Lectures + 2 Studio** **TOTAL = 4 hrs/week**	**CIE** **SS**	**50** **50**
	Paper	**Nil**
TOTAL MARKS	**100**	
TOTAL CREDITS	**3**	

COURSE OBJECTIVE: To allow the students to study a subject of their interest and develop theoretical as well as practical understanding of the same.

COURSE OUTLINE:

- Colleges have to develop course outline for the elective they wish to offer such that the theoretical as well practical aspects are covered linking them to the Design field.
- Apart from lectures delivered by the subject resource persons, self-study in form of hands on workshop / field work/ review of literature / seminar or any suitable format of learning may be adopted.
- A list of Electives is suggested in **Annexure A- in *Programme Structure*.** The Institutes can refer it or ***offer any other relevant course/ courses aligned to Institute's philosophy under Elective***.

A student may adhere to a particular stream of elective of his/her choice and nurture his/her area of interest and develop his/her expertise.
However, the student shall not select the same elective category in the immediately following semester.

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Savitribai Phule Pune University
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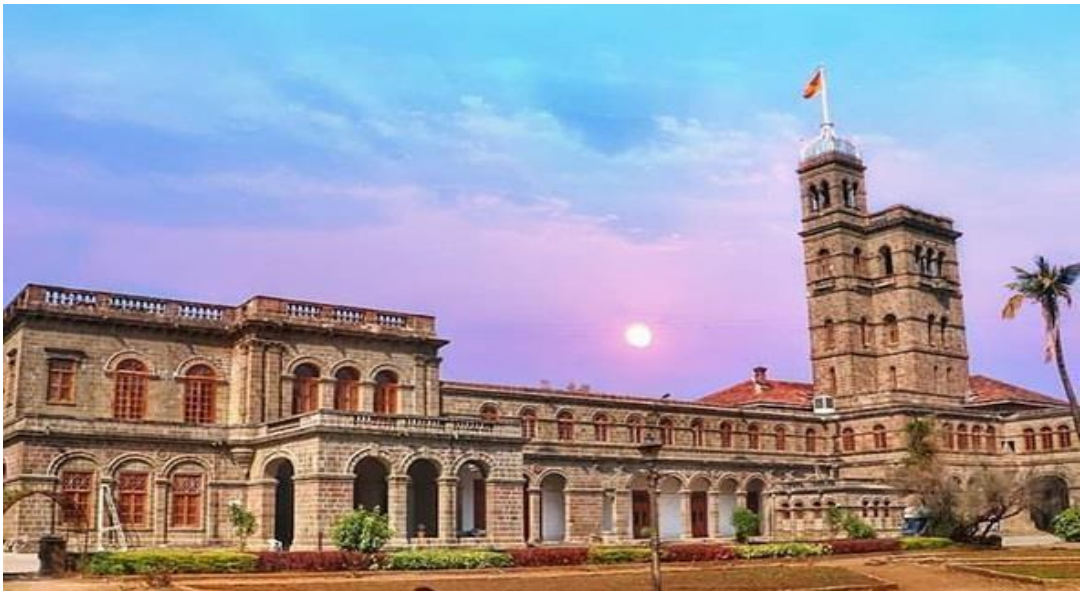
Semester - VI



DETAILED SYLLABUS OF B.DES. (INTERIOR DESIGN)

THIRD YEAR - SEMESTER VI

(2025 Pattern)

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DESIGN PROJECT 4		
COURSE CODE	**3202742(P) 3202743 (SV)**	
TEACHING SCHEME	**EXAMINATION SCHEME**	
TOTAL CONTACT HOURS PER WEEK **2 Lectures + 10 Studio** **TOTAL = 12 hrs/wk.**	**Paper/Theory** **In Sem** **End Sem**	 **50** **50**
	Total	**100**
	SV **CIE** **ESE**	 **125** **125**
	Total	**250**
TOTAL MARKS	**350**	
TOTAL CREDITS	**7**	

COURSE OBJECTIVE: This subject aims at introducing to the design of hospitality spaces.

- The course will encourage students, to handle multiple users in large nos.
- It will give the exposure of handling aesthetics, services & functionality simultaneously.

Design parameters in terms of typology:

- Star rated hotels, Boutique Hotels, Spa, Multi cuisine Restaurant, etc.
- Area minimum: 4000 Sq. ft. to 6000 Sq ft.
- Multi levels/ mezzanine shall be incorporated.

COURSE CONTENT:

UNIT 1: Detailed study of selected Typology and its requirements. Study and analysis of related data. Study of Anthropometry. Case study and analysis of designed spaces.

UNIT 2: Site Analysis: Documenting space (Drawings and photo documentation) Design development: Design brief, zoning and circulation diagrams, mood board, conceptual sketches, spatial explorations etc.

UNIT 3: Detailed drawings for Design solutions.

UNIT 4: Integration of Interior Services learnt like Plumbing, Electrification, Firefighting, and Air conditioning in the design proposals.

UNIT 5: Color and material pallet, Views, Walkthroughs.

SUBMISSION REQUIREMENT

1. Study of anthropometry, required for hospitality spaces related to selected typology. **(Data Collection)**
2. Analytical study of typical interior layouts with respect to activities, Functions, requirements, service integration, aesthetics etc. **(Case Studies** **(25%)**

3. Site Analysis: Documenting Site and its context (through Drawings and photo Documentation)
4. Design concepts, Formulation of Design Brief and Design development **(60%)**
5. **Drawings** – Plans, Sections, Service drawings, Colour & Material Pallet, Details, Views / Walkthroughs etc.

6. Presentation and working drawings of design project. **(15%)**

METHOD OF INSTRUCTION

Designed hospitality Interiors to be taken for Case Studies.
Theme oriented designs may also be considered.
2 to 3 Case Studies can be done online/ Book as well, in addition to Live Case Studies.

Online Lectures for some topics from NPTEL, Coursera can be organized.

COURSE OUTCOME

The students will be able to design hospitality spaces for diverse users with focus on hospitality experience.
They will be able to apply advanced skills in planning and development of complex, multifunctional, multi user typologies of larger spatial volumes.

Recommended Readings:

- Interior design by D.K. Ching
- Time savers standards of interior design
- Neuferts standards.
- Façade restaurants and café by:Shirish Vasant Bapat.
- Hotels and Resorts in india by: published by White flag.
- Tropical Resort publisher : Cherry Chan
- Stylish Indian Restaurants by Indian Architecture Group
- Interior Design for Wellness Spaces by Allison Culliford

MATERIAL & CONSTRUCTION TECHNIQUES 4		
COURSE CODE	**3202744 (SV)**	
TEACHING SCHEME	**EXAMINATION SCHEME**	
TOTAL CONTACT HOURS PER WEEK **2 Lectures + 6 Studio** **TOTAL = 8 hrs/week**	**CIE** **SS**	**50** **50**
	Paper	**Nil**
TOTAL MARKS	**100**	
TOTAL CREDITS	**5**	

COURSE OBJECTIVE:

This course will help students understand the following.

1. Structural systems and materials used for composite construction and construction techniques employed.
2. Properties, uses and application of thermal insulation and acoustic materials in interiors.
3. Concepts of Modularity.

COURSE CONTENT:

UNIT 1: Materials for Acoustic & Thermal insulation :

Principles and methods of acoustic insulation, acoustic insulation materials like acoustic membranes, acoustic mineral wool, fiberglass, acoustic insulation systems like soundproof drywall, acoustic paneling, acoustic ceiling systems, soundproof floor underlay, soundproof plasters and paints etc, their properties and process of application.

Methods of thermal insulation, materials of thermal insulation like fiberglass, mineral wool, natural fibers, cellulose insulation materials, polystyrene insulation materials, etc. their properties, uses and methods of application.

UNIT 2: Mezzanine floors Structural framework of Mezzanine floors in mild steel and its construction details.

UNIT 3 : Modular Furniture: Principles of Modularity, Materials, Processes and Construction methods, hardware used in modular systems.

UNIT 4: Materials used for composite outdoor construction: Structural framework materials like mild steel/SS sections, aluminum extrusions, UPVC sections, covering materials like cement sheets, ACP sheets, WPC boards, HPL sheets, terracotta screens, types of shingles, acrylic sheets, polycarbonate sheets, tensile fabrics etc. their properties, uses and methods of application.

UNIT 5 : Facades : Façade with its structural framework in materials like mild steel, aluminum etc. Appropriate covering materials, glazing, cladding, Signage etc.

SUBMISSION REQUIREMENT

Unit 1 and 4 : Journal writing, Market survey
Unit 2 : Sheet work with details.
Unit 3 : Study of Modularity in: Dining, Wardrobe, Study unit, Corporate Office furniture, Retail furniture etc. (any 3)
Unit 5 : Sheet work with details for min. 2 types of Facades.
Note : Suggested to take earlier/ Current Design programmes for detailing in Unit 3.

METHOD OF INSTRUCTION

Regular Site visits, with focus on construction methods and material application shall be organized.
Vendor interactions to give exposure to Brands, materials and development in technologies shall be arranged.
Online Lectures for some topics from NPTEL, Coursera can be organized.

COURSE OUTCOME

This course helps the students to understand materials with thermal and acoustic applications and composite construction.
Students will learn the concepts of Modularity to design furniture with flexibility and adaptability to accommodate changing needs with diverse environment.

Recommended Readings:

- Engineering materials by K.P.Roy and Chaudhari.
- Materials of construction by D.N.Ghose.
- Architectural metals by l.William Zabner.
- Building construction by W.B.Mckay- Vol 1 to 4.
- Building construction by Chudley.
- Building materials by Sushil kumar.
- Woodworkers guide to furniture design.

ESTIMATION & COSTING		
COURSE CODE	**3202745 (P)** **3202746 (SS)**	
TEACHING SCHEME	**EXAMINATION SCHEME**	
TOTAL CONTACT HOURS PER WEEK **2 Lectures + 2 Studio** **TOTAL = 4 hrs/week**	**Paper** **In Sem** **End Sem**	 **30** **70**
	Total	**100**
	SS **CIE** **SS**	 **25** **25**
	Total	**50**
TOTAL MARKS	**150**	
TOTAL CREDITS	**3**	

COURSE OBJECTIVE:

- To enable the students to understand the concept of estimation and costing for
- interior design
- To acquaint students with methodology of writing specifications with reference to
- service installations of different items of work
- To know importance of specifications in contract document for any construction project.

UNIT 1 : Introduction to costing, its application and benefits, cost influences construction costs, costing of furniture, fixtures and equipment, contractor's overheads and profit, Professional fees, taxes and contingencies other installation.

UNIT 2 : Introduction to estimation, importance, need, types of estimate, methods of estimate (parameter, items-wise estimation, take- offs), preparing abstract and bill of quantities including unit of measurements. Factors to be considered for special design with estimation.

UNIT 3: Introduction to specifications, types of specifications, its advantages and disadvantages.

UNIT 4 : Introduction to writing of specification, purpose and definition of specification, , coordination with the construction drawings, furniture specification, specification for walls, floors, wardrobes, ceiling, painting etc. Procedure for writing specification for the purpose of calling tenders.

UNIT 5 : Introduction to Rate analysis, Definition, method of preparation, quantity and labour estimation for woodwork, steelwork, aluminum work, glass and its rate for different, thickness & sections, finishing (enamel paint, deco paints, melamine, du coats, and hand polishing, veneering and laminating) for walls and ceilings.

Electrical and plumbing products, wiring, ducting, and laying of tiles and wall paneling in the estimate format of the project.

UNIT 6 : Introduction to costing of fixtures and fitting: Types of fixtures: carpentry, civil etc.

SUBMISSION REQUIREMENT

1. Journal writing on the topics described in Units.

2. Writing general and standard specifications for interior design items, like flooring, ceiling, furniture work, painting , electrification , plumbing etc.

3. Abstract and quantity estimating of the design program, for the interior design items like, flooring, ceiling, furniture work, painting , electrification , plumbing etc. and compiling it in a file format.

COURSE OUTCOME:

The students will know the methodology of estimating the Projects. They will understand the role of specification writing, method of systematic estimation.

Recommended readings:-

- Estimation costing and valuation by Rangwala.
- Estimating and costing in civil engineering by : B.N. Dutta.
- Professional practices by: Dr. Roshan. H. Namavati
- Estimating and Costing for Interior Designers: A Step-by-Step Workbook by Diana Allison (Author)
- Interior Design Materials and Specifications By Lisa Godsey

RESEARCH METHODS		
COURSE CODE	3202747 (SS)	
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 1 Lecture + 2 Studio TOTAL = 3 hrs/week	Sessional CIA SS	50 50
TOTAL MARKS	100	
TOTAL CREDITS	2	

COURSE OBJECTIVE:

The course aims towards developing foundation towards Research skills.

COURSE CONTENT:

UNIT 1: Introduction to Research: Meaning and importance of Research, its significance in Design, Research Process.

UNIT 2: Types of Research, Min.6 types of Research: (Descriptive, Analytical, Qualitative, Quantitative, Applied, Fundamental, Conceptual, Empirical, etc.)

UNIT 3: Methods of Data Collection: Types of Survey, Variables, Sampling techniques

UNIT 4: Analysis of data: presentation of data in different modes as per requirement of Research (Pie chart, Line graphs, etc.)

UNIT 5: Presentation of Data: Graphical,non graphical, photo, illustrations , Tables etc.

UNIT 6: Synopsis: Defining Aims, Objectives, Scope, Methodology. Understanding synopsis from reading Research Papers.

SUBMISSION REQUIREMENT

a) Journal writing for theories of Unit 1, 2 and 4.

b) Identifying and reading Research Papers (min.5) on topic of individual interest.

c) Analysis and systematic presentation of data collected from Research Papers: identification of types of survey, variables, sampling techniques, application in Research Paper.

d) Synopsis writing on topic of interest.

Note : Submissions according to specific disciplines should be stressed upon and detailed out.

METHOD OF INSTRUCTION

Regular presentation of students work and group discussions shall be undertaken.

Online E resources, E Libraries of different University / institutions – should be advised for reading

COURSE OUTCOME:

Students will be equipped to conduct independent research on relevant topics in a systematic manner.

Recommended readings:-

- Garg.B.L., Karadia, R., Agarwal,F. and Agarwal, U.K., 2002. An introduction to Research Methodology, RBSA Publishers.
- Kothari, C.R.(2008). Research Methodology: Methods and Techniques. Second Edition. New Age International Publishers, New Delhi.
- Architectural Research Methods by Linda N. Groat ,David Wang, Wiley Publications.
- Sinha, S.C. and Dhiman, A.K., 2002. Research Methodology, Ess Ess Publications.
- Reasearch design by Creswell, John
- Writing Your Thesis by Oliver Poul
- Understanding the research process by Oliver Po

PROFESSIONAL PRACTICE		
COURSE CODE	3202748 (SS)	
TEACHING SCHEME	EXAMINATION SCHEME	
TOTAL CONTACT HOURS PER WEEK 1 Lecture + 2 Studio TOTAL = 3 hrs/week	Sessional CIA SS	50 50
TOTAL MARKS	100	
TOTAL CREDITS	2	

COURSE OBJECTIVE:

To enable students to understand the profession of Interior Design, its ethical standards and professional conduct.

To understand the roles, duties, and responsibilities of the designer, as well as those of other team members.

Understanding the working of an Interior firm.

COURSE CONTENT:

1. Introducing students to the profession of interior design, personal goal setting, and mission.
2. Ethics in business environment, responsibility to the public, client, responsibility of the interior designer, colleague, profession, employer.
3. Interior designer's office, equipping and maintaining the office, accounts etc.
4. Developing new interior design practice: coordination with Agencies, Consultants, Entrepreneurs, Proprietors, Partnerships, and Vendors.
5. Consulting fees, contract and agreements for consulting charges.
6. Project management, contracts and agreements for execution of Projects.
7. Tenders: Preparation of tender documents
8. Professional bodies and associations in India and abroad. IIID (Institute of Indian Interior Designers), ASID (American society of interior design), IIDA (International interior design association),etc. importance and advantages of being a part of the professional bodies.

SUBMISSION REQUIREMENT

Journal writing on all of the above topics.
A Case Study of Practicing Int. Designer and report on the case study, Interview of the professional is desirable.

COURSE OUTCOME:

The course will expose students towards the nuances of interior Design practice. It will equip the students with knowledge and skills needed for professional environment.

Recommended readings:-

- Professional practice for interior design by: Christine.M. Piotrowski.
- Designing your business strategies for interior design professionals by: Gordon .T. Kendall.
- Shan Preddy, How to Run a Successful Design Business: The New Professional Practice, Gower Publishing Ltd. 2011
- Min Basadur, Michael Goldsby, Design centered Entrepreneurship, 2016

ELECTIVES 4 (DESIGN)		
COURSE CODE	**3202749(SS)**	
TEACHING SCHEME	**EXAMINATION SCHEME**	
TOTAL CONTACT HOURS PER WEEK **2 Lecture + 2 Studio** **TOTAL = 4 hrs/week**	**Sessional CIA** **SS**	**50** **50**
	Paper : Nil	
TOTAL MARKS	**100**	
TOTAL CREDITS	**3**	

COURSE OBJECTIVE:

To develop students understanding and skills in designing and detailing congregation spaces such as auditoriums, conference halls, and banquet halls, etc. of capacity 150 to 200 persons.with emphasis on services, interior elements, and current technologies.

COURSE CONTENT:

1. To study in detail through case study and books about interior detailing of conference room or Auditorium.
2. To study and apply the aspect of Lighting & electrification, Acoustical Treatment, Sound systems, Projection facilities, Seating arrangements, Air Conditioning, Fire fighting services in an Auditorium/ Conference Hall/ Seminar hall/ Banquet.
3. To develop detail plans of above services and the details of other interior design feature.
4. To develop detail interior sections and elevations.
5. A detailed market survey of the latest technology of illumination, Firefighting and Air Conditioning technologies and materials should be done.

SUBMISSION REQUIREMENT

Minimum 5 to 7- A2 size sheets CAD drawings- Plans, Elevations, Sections, details, service Plan, details of services, market survey Report on latest materials and technology.

Recommended readings:-

- Theatre & Auditoriums by Herald Burris – Meyer and Edward Cole.
- Handbook of Architects working details.
- Acoustical designing in Architecture by Kundsen, V.O. & Harris C.M

VOCATIONAL EDUCATION	
COURSE CODE	**3202750**
TOTAL CREDITS	**2**

COURSE OBJECTIVE:

To provide students with hands-on practical exposure and industry-relevant skills in various vocational domains, enabling them to enhance employability and creative capabilities.

COURSE CONTENT:

Students must complete a minimum of 70 to 90 hours of practical training in any one or a combination of the vocational areas mentioned in **Annexure B-in *Programme Structure***, List of Vocational Courses.

It shall be noted that the list is suggestive and is not limited to the courses mentioned.

SUBMISSION REQUIREMENT:

1.Vocational Course Report (Journal/ Log book):

a) Description of training/work undertaken

b) Daily/weekly activity log

c) Learning outcomes and reflections

2. Proof of completion (Certificate) from the concerned workshop/industry

3. Visual documentation of work (photos, sketches, process sheets)

Note: The student shall be assessed and evaluated on the basis of Grades.

COURSE OUTCOME:

Students will acquire basic technical and manual skills in selected vocational areas while developing an understanding of real-world working environments and industry practices.

The course will also foster creativity and execution skills, along with providing hands-on exposure to tools, materials, and processes.