

**UNIVERSITY OF PUNE**

**SYLLABUS  
FOR  
FOURTH YEAR  
B.ARCH (INTERIOR DESIGN)  
TO BE IMPLEMENTED FROM ACADEMIC YEAR 2009-2010**

**FACULTY OF ENGINEERING  
BOARD OF STUDIES IN ARCHITECTURE**

## Fourth Year B. Arch ( Interior Design)

Sub. Code	Subject	Teaching Scheme			Examination Scheme		
		Lecture periods	Studio periods	Total	Sessional Viva-Voce	Paper	Total
413481	Interior Design	2	10	12	450	100	550
413482	Construction, Services & Materials-IV	2	8	10	250	100	350
413483	Furniture Design-II	2	2	4	100	-	100
413484	Technology Elective -I	1	1	2	50	-	50
	Technology Elective -II						
413485	Design Elective- I	1	1	2	50	-	50
	Design Elective- II						
413486	Professional Practice-I	1	1	2	50	-	50
413487	Management Elective-I	1	1	2	50	-	50
	Management Elective-II						
413488	Dissertation	0	2	2	100	-	100
	<b>Total</b>	<b>10</b>	<b>26</b>	<b>36</b>	<b>1100</b>	<b>200</b>	<b>1300</b>

### 1. Design Electives :

1. Product Design
2. Set Design
3. Interior Landscape Design
4. Interior Accessories Design
5. Heritage and Conservation of interior
6. Automobile Interiors
7. Visual Merchandising
8. Event Designing.

### 2. Technology Electives :

1. Construction equipments and methods
2. Construction Quality Controls
3. Computer Applications –3 D Visualization
4. Air Conditioning
5. Interior Lighting.
6. Acoustics
7. Security Systems
8. Control Systems for Intelligent Building Interiors

### 3. Management Electives.

1. Computer Applications in Project Management
2. Labour Laws and Management
3. Project Finance
4. Building Byelaws
5. Project Contract Systems
6. Estate Management.
7. Human Resources Development

## 8. Project Assessment and Valuation

## 413481- INTERIOR DESIGN

### Teaching scheme

Lectures- 2 nos./Week  
Hours)  
Studios - 10 nos./Week

### Examination scheme

Paper : 100 (18  
Sessional (Internal) : 200  
Sessional (External) : 200  
Viva-voce : 50

### **OBJECTIVE :**

Introduce students progressively to designing for larger architectural and interior environmental contexts and for more complex multifunctional complex of buildings / situations like mass scale residential, institutional, commercial, transportation, health-care facilities . The focus should be on Inside out planning and Detailing of the interior spaces will be an important part of sessional assignment.

### **COURSE OUTLINE :**

#### **UNIT I :**

Design of Urban Medium scale /density based housing with approximately 100 tenements of density 120 tenements /hectare. Socio-economic determinants, legislative, economic constraints and technological alternatives shall be studied in detail. Exercises in simulation and conceptual modeling particularly with reference to interior space planning shall be conducted. Application of concepts of community participation, interior design ,financing and construction planning.

#### **UNIT II :**

Design of multifunctional complex of buildings of non-residential nature. Emphasis on the design with relation to the contextual and internal environment and integration of architectural and interior concepts. .Detailing of the design with respect to custom-made and mass manufactured interior elements , advanced services and systems .

### **SESSIONAL WORK :**

- Two assignments for a period of 18 weeks each.
- Complete Self-explanatory projects, graphically presented in the form of hard copies /printouts showing comprehensive understanding of the design and implementation process as mentioned in the course outline.
- Case studies, which will supplement / support the Architectural Design project can be done in groups.
- Computer aided project documentation including detailed working drawings, preliminary estimates and services like water supply, drainage,

electricity, firefighting etc. aimed at comprehensive understanding of the implementation process for one of the above projects.

- **All Architectural Design Assignments and submissions shall lay emphasis on designing Earthquake Resistant and Sustainable structures , which will be worked out in consultation with the Teacher of Structures and the submission work will reflect various technologies adopted.**

### **Recommended Reading:**

Aranya, HUDCO. New Delhi, 1988.

Doshi B V. Living Environments. Vastushilpa Foundation, Ahmedabad.

Alexander, Christopher. Pattern Language.

Charles Correa, Mimar

Correa, Charles. Housing and Urbanisation

## **413482- CONSTRUCTION, SERVICES AND MATERIALS-IV**

Teaching scheme

Lectures- 2 nos./Week  
Studios - 8 nos./Week

Examination scheme

Paper : 100 (3 Hours)  
Sessional (Internal) : 100  
Sessional (External) : 100  
Viva-voce : 50 (25+25)

### **OBJECTIVES:**

- To acquaint students with more complex structural systems, constructional details and building types with emphasis on applied constructional details from Architectural and Interior Design Project with developing the skills in Architectural and Interior Detailing.
- To introduce students to advance interior construction methods, services and innovative materials.

### **COURSE OUTLINE:**

**Note:** As far as possible and practicable various topics mentioned below shall be combined and studied as extension of Architectural Design

**Programme in Sem. VI AND VII in the form of Applied  
Constructional Details.**

**UNIT I :**

**LONG SPAN STRUCTURES**

- 1.0 Conceptual study of Design and Construction of long span structures like Sports Stadiums, Gymnasium, Auditorium etc. with special reference to design of seating
- 2.0 Various types of roofing systems. (Any one type of building shall be studied in detail)

**UNIT II :**

Conceptual study of design and constructional details of,

- 1.0 Shell roofs.
- 2.0 Single curvature shells.
- 3.0 Short and long span barrel vaults.
- 4.0 North light and cantilever Barrel vaults.
- 5.0 Double curvature shells.
- 6.0 Shell domes.
- 7.0 Double curved shells.

**UNIT III:**

- 1.0 Folded slab roofs.

**UNIT IV:**

**GRID STRUCTURES**

- 1.0 Space frames.
- 2.0 Flat grids.
- 3.0 Folded grids.
- 4.0 Folded lattice plates.
- 5.0 Braced barrel vaults.
- 6.0 Braced domes.

**UNIT V:**

- 1.0 Tension roof structures.

**UNIT VI:**

- 1.0 High Rise Structures.

**UNIT VII:**

**CONSTRUCTION DETAILS OF AN INDUSTRIAL STRUCTURE** with details of

- 1.0 lighting,
- 2.0 ventilation,
- 3.0 rainwater disposal,
- 4.0 gantry,

5.0 introductory details of machine foundations and high strength flooring.

**UNIT VIII:**

1.0 Construction Details of semi permanent structures such as exhibition pavilions, temporary viewing galleries etc.

**UNIT IX:**

1.0 Constructional details of sound and heat insulation and their application in areas such as conference halls, concert halls, recording studios, cold storage rooms, roof insulation etc.

**UNIT X:**

1.0 Constructional details of swimming pools and all the appurtenant services.

**UNIT XI:**

**CONSTRUCTIONAL DETAILS OF MULTI BASEMENT (MAXIMUM DOUBLE BASEMENT) WITH**

- 1.0 waterproofing treatment,
- 2.0 lighting
- 3.0 ventilation,
- 4.0 rainwater disposal
- 5.0 diaphragm walls below ground level.

**UNIT XII:**

1.0 Housing colony road constructional details including basic terminology, surface water drainage etc.

**UNIT XIII:**

1.0 Conceptual study of Design and Construction of Curtain Walls and Structural Glazing including thermal facings and cladding details.

**UNIT XIV:**

**EARTHQUAKE RESISTANT BUILDING CONSTRUCTION.**

- 1.0 Quality control in construction, sequence of construction, good supervision practices, critical check points and certification at certain stages, reporting, maintenance of records, testing etc.
- 2.0 Seismic vulnerability evaluation of existing buildings.
- 3.0 Weakness in existing buildings, aging, weathering, developments of cracks etc

**UNIT XV:**

**MATERIALS**

- 1.0 Study of materials and constructional details of Expansion Joints, NDT's ( Non destructive test ), Structural strengthening of building elements using various epoxy and hardening agents.
- 2.0 Surface finishes and specifications ( as special materials )

**UNIT XVI:**

- 1.0 Modular and proprietary Pre-fabricated kitchen systems.

**UNIT XVII:**

**SERVICES**

- 1.0 Advance services for intelligent buildings
- 2.0 Firefighting
- 3.0 Electronics and telecommunication facilities in Architecture and Interiors.

**SESSIONAL WORK.**

- 1.0 Sufficient number of drawings and journals to cover the syllabus.
- 2.0 Detailed project drawings for Architectural and Interiors based on Architectural design assignment. (Min two details each)

**RECOMMENDED READING:**

1. Elements of Structures by MORGAN.
2. Structures in Architecture by SALVADORI

**TO STUDY STANDARD BUILDING CONSTRUCTION**

1. Building Construction by MACKAY WB. Vol.1 to 4
2. Construction of Building by BARRY Vol. 1 to 5
3. Construction Technology by CHUDLEY R. Vol. 1 to 6
4. Building Construction illustrated by CHING FRANCIS D.K.
5. Elementary Building Construction by MITCHELL.
6. Structures and Fabric by EVERET

**TO STUDY BUILDING MATERIALS.**

- 1: National Building Code and I.S.I. Specifications.
- 2: Materials and Finishes by EVERET.
- 3: A to Z Building Materials in Architecture by HORNBOSTLE.

**413483 - FURNITURE DESIGN-II**

Teaching scheme  
Lectures-2 nos./Week  
Studios-2 nos./Week

Examination scheme  
Paper : Nil  
Sessional (Internal) : 50  
Sessional (External) : 50



## **OBJECTIVE**

To help students to understand scientific way of designing complex furniture elements office furniture etc.

## **COURSE OUTLINE**

- Designing complex furniture elements like cabinets counters, office furniture etc
- System design approach, modular in designing furniture, modular approach and multiple use of furniture forms.
- Mass production of furniture for various classes of people with the parameters of economy & culture..
- Skills required, materials properties, Bio-mechanical factors and ergonomical considerations, aesthetic considerations and packing, transportation& economical factors considerations.

## **SESSIONAL WORK:**

- 1 Interior Design Exercise in each term counters, office furniture etc. Making detailed measure drawings and models of the same.
- The sessional work will also include writing detailed specifications, working out costing and making prototype of any one furniture piece.

## **413484 - TECHNOLOGY ELECTIVE**

Teaching scheme  
Lectures-1 nos./ Week  
Studios-1 nos./Week

Examination scheme  
Paper : Nil  
Sessional (Internal) : 50  
Sessional (External) : Nil

## **OBJECTIVES:**

The subject of Electives has been introduced in syllabus with specific intention of in depth study of a particular subject of student's liking in greater detail but In the larger context of overall scope of Architecture syllabus at undergraduate level. This will give students an opportunity to develop their skills in a subject they may opt, to make their career in future.

Architectural practice is a team effort In which persons of different skills in varied fields are required such as Concept Developers, Technical / Working Drawing Experts, Specification Writers, Quantity Surveyors, Project Managers, Contract Managers, Interior Designers, Architectural Photographers, Architectural Journalists, Signage and Graphic Designers, Energy Consultants, Building Services Consultants, Marketing Managers etc.

In depth study in Electives will prepare the technical base of the students. Since the Architectural Projects in future are going to be very complex, the vital need of support

staff in Architectural Practice will be fulfilled and the student's skills and talent will be effectively used.

Study of any two ( 1 in each term) particular subjects of student's liking in greater detail but in the larger context of the overall scope of Interior Design Syllabus at undergraduate level.

1. Construction equipments and methods
2. Construction Quality Assurance and Controls
3. Computer Applications –3 D Visualization
4. Interior Lighting
5. Air Conditioning
- 6 Acoustics
7. Security Systems
- 8.Intelligent Building Management Systems

### **1. CONSTRUCTION EQUIPMENTS AND METHODS**

Introduction and study of the following :

- Pneumatic rock breakers and excavators ,
- Earth moving equipments ,
- Power cranes ,
- Construction elevators and material conveyors ,
- Plate compactors,
- Needle compactors,
- Tri-mix flooring equipments ,
- Ready mix concrete plants,
- Transportors and pumps ,
- Rebar cutting and bending machines ,
- Building exterior maintenance tools and tackles etc.

### **2. CONSTRUCTION QUALITY ASSURANCE AND CONTROLS**

- Training programmes for Construction personnel viz labourers, technicians , supervisors, engineers and managerial staff .
- On - Site and Off – site material testing labs

### **3. COMPUTER APPLICATIONS –3 D VISUALIZATION**

- Computer based drawing systems and retrieval methodologies.
- Computer based office systems for communication ,estimation , quantity surveying and records.
- Computer based book keeping and accountancy.

### **4. INTERIOR LIGHTING**

Light can transform moods. Indoor lighting complements different moods, feelings and every-day shades, practically telling the art of living. With shades of light, an interior designer can change the ambience from special to occasional and even extravagant, and

create magic with special effects. Playing creatively with decorative indoor lighting can add persona to any set-up and interiors. Students are supposed to study new trends in interior lighting with reference to creation of required ambience within the space. It will include the study of various lighting systems, their fixing details in addition to other related environmental issues.

#### **5. AIR CONDITIONING**

With unpredictable weather changes and pollution levels increasing world wide, more people will inevitably have to adopt air conditioners in their domestic, commercial or the industrial settings. Apart from the normal ventilations, temperature regulation the installation of such system is consuming a considerable space within a building in addition to sizeable power percentage. Students are supposed to study various emerging technologies focused on save energy where preference has to be given to their on site applications. The Installation procedures have to be detailed out considering the character of spaces to be designed. The research will include literature browsing, on-site studies required for an in depth study of selected innovative method of air conditioning with reference to design and construction of interior spaces.

#### **6. ACOUSTICS**

Acoustics has originally aroused human interest through music, occurrence of echoes in valleys and glens and construction of amphitheaters,, modern acoustics is vastly different from the field that existed even twenty years ago. Students are supposed to detail out various aspects of architectural acoustics and its application in a particular space. It will include the science of controlling sound within buildings, noise suppression in the design of multi-unit dwellings and business premises, implications for noise health effects etc. Topics may be selected for detailed study with reference to

- Building skin envelope
- Inter-space noise control
- Interior space acoustics

#### **7. SECURITY SYSTEMS**

- Electronics
- Cable and Pre-Installation Techniques
- CCTV and Lighting
- Intruder Alarm and Access Control
- Security Industry Awareness
- Communications

#### **8. INTELLIGENT BUILDING MANAGEMENT SYSTEMS**

Study of Intelligent buildings include the control technologies, which allow integration, automation, and optimization of all the services and equipment that provide services and manages the environment of the building concerned. Students are supposed to explore Building Management Systems (BMS) encompasses an enormous variety of technologies, across commercial, industrial, institutional and domestic buildings, including energy management systems and building controls 'Intelligent Buildings' concepts; its purpose is to control, monitor and optimize building services, eg., lighting; heating; security, CCTV

and alarm systems; access control; audio-visual and entertainment systems; ventilation, filtration and climate control, etc.; even time & attendance control and reporting (notably staff movement and availability).

**NOTE:** Detailed syllabus for all Elective Topics will be finalized by Individual College in consultation with expert Faculty considering the time and marks allotted to the subject.

**SUBMISSION DETAILS:**

The students are expected to study the selected topic In depth, Including the basic principles, and their application In built projects by undertaking case studies, necessary site visits, and collecting all the relevant Information to make It an exhaustive study and present It in a well documented format having A-3/ A-4 size papers properly filed with a signed certificate from concerned Teacher/Expert stating that the study was carried out under his guidance and countersigned by the Principal/ Academic Co-ordinator.

**413485 - DESIGN ELECTIVE**

Teaching scheme  
Lectures-1 nos./Week  
Studios-1 nos./Week

Examination scheme  
Paper : Nil  
Sessional (Internal) : 50  
Sessional (External) : Nil

**OBJECTIVES :**

The subject of Electives has been introduced in syllabus with specific intention of in depth study of a particular subject of student's liking in greater detail but in the larger context of overall scope of Architecture syllabus at undergraduate level.

This will give students an opportunity to develop their skills in a subject they may opt, to make their career in future. Architectural practice is a team effort In which persons of different skills in varied fields are required such as Concept Developers, Technical / Working Drawing Experts, Specification Writers, Quantity Surveyors, Project Managers, Contract Managers, Interior Designers, Architectural Photographers, Architectural Journalists, Signage and Graphic Designers, Energy Consultants, Building Services Consultants, Marketing Managers etc.

In depth study in Electives will prepare the technical base of the students. Since the Architectural Projects in future are going to be very complex, the vital need of support staff in Architectural Practice will be fulfilled and the student's skills and talent will be effectively used.

**COURSE DETAILS :**

Study of any two ( 1 in each term) particular subjects of student's liking in greater detail but in the larger context of the overall scope of Interior Design Syllabus at undergraduate level.

1. Product Design
2. Set Design

3. Interior Landscape Design
4. Interior Accessories Design
5. Heritage and Conservation of interior
6. Automobile Interiors
7. Visual Merchandising
8. Event Designing

### **1. PRODUCT DESIGN**

Specialty and innovative user centered design is the need of the market for furniture and products allied to interiors. The design process for mass production deviates from interior design. This subject will introduce design process for various products and furniture types used in interiors with detailed study of ergonomics, and innovative joinery details the subject lays equal focus towards material with reference not only to the cost affordability but also to environmental concerns without compromising on strength and durability.

- Scope and objective of product design.
- History of product design.
- Compare Mass production and Handcrafted products with respect to material properties, use and technique of making and manufacture.
- Introduction to machinery used for manufacture such as roller bending, sand casting hammer press etc.
- Different methods of joinery and forming such as welding, pin-jointing etc.

### **2. SET DESIGN**

Set Design is an upcoming stream in the design industry. This subject intends to give the learner an insight of concepts, materials and techniques of set design that are different from those of architectural or interior design in terms of the temporary nature of solution; short time available for erecting and dismantling of the themed design suitable for different environment and requirement of application

- Introduction to set design: Production team, process and limitations.
- History of set design / art direction.
- Practical use of Elements and principles of design in set Design
- Materials and construction techniques.

### **3. INTERIOR LANDSCAPE DESIGN**

#### **SPECIFIC SUBJECTS**

- landscape in interior spaces in history, thematic
- landscapes, indoor plants, landscape features and
- materials used in interior spaces, elements and
- principles of landscape design in interior
- spaces, landscape design in historic contexts,
- services for the landscape in interiors,
- landscape construction in interior spaces,
- lighting, graphics and sculptures

## **GENERAL SUBJECTS**

- ecology and plant knowledge, appropriateness of
- species, native and exotic plants, roof gardens,
- landscapes in interior spaces of various building types like hotels, hospitals , institutions, public buildings etc, horticulture practices ,
- landscape as a tool to modify the microclimate, sustainability concepts in landscaping,
- landscape management

## **4. INTERIOR ACCESSORIES DESIGN**

- Introduction to accessories design, different types of accessories.
- Principles of accessories design in interiors.
- Methods of enhancing accessories eg. Lighting etc.

## **5. CONSERVATION OF BUILDINGS AND INTERIORS**

- Principles and relevance of conservation
- Understanding various historic Interior styles in terms of characteristics and materials used.
- Principles of conserving historic interiors inclusive of projects proposing interiors within historic buildings for adaptive reuse.
- Repair and reconstruct furniture , upholstery, fabrics and accessories.
- Installing and repairing services in heritage buildings
  - Plumbing and toilets
  - Electrification and air – conditioning.
- External and Internal lighting
- Environmental Graphics

## **6. AUTOMOBILE INTERIORS**

- Introduction to Automobile interiors.
- Different types of Automobile interiors

## **7. VISUAL COMMUNICATION**

- Visual communications in architecture, built forms , interiors and environment.
- Role of graphic symbols , signage and universal languages.
- Visual communications for merchandising.

## **8. EVENT DESIGNING**

- Introduction to event designing and its scope.
- Different types of events .
- Different agencies involved in event design.

**NOTE:** Detailed syllabus for all Elective Topics will be finalized by Individual College in consultation with expert Faculty, considering the time and marks allotted to the subject.

**SUBMISSION DETAILS:**

The students are expected to study the selected topic In depth, Including the basic principles, and their application In built projects by undertaking case studies, necessary site visits, and collecting all the relevant Information to make It an exhaustive study and present It in a well documented format having A-3/ A-4 size papers property filed In a file with a signed certificate from concerned Teacher/Expert slating that the study was carried out under his guidance and countersigned by the Principal/ Academic Co-coordinator.

**413486- Professional Practice-I**

Teaching scheme

Lectures- 1 nos./Week

Studios - 1 nos./Week

Examination scheme

Paper : Nil

Sessional (Internal) : 50

**OBJECTIVES**

- To acquaint students with avenues of professional services as well as relevant scope, mode and conduct of architectural / interior design practice.
- To acquaint students with documentation and procedures for execution of architecture and interior projects as well as with management aspects of the same.
- To acquaint students with office practices, office administration, accounting, building bye-laws, tendering, contracts and arbitration, valuation, professional conduct and ethics, Architect's Act 1972, Role of COA, IIA and UIA Implementing a building contract etc.

**COURSE OUTLINE**

**UNIT I :**

Architect's office Establishment

Laws and regulations governing Architectural Practice

Agreements with associates, clients and consultants

**UNIT II :**

1. Tender document

2. Selection of agency for execution, project scheduling & monitoring including CPM,PERT and other techniques.

3. Contract

4. Role of Architect in contract and execution of work. - site supervision, instructions, approvals , certificates etc.

**SESSIONAL WORK:** Preparation of Journal

## 413487- MANAGEMENT ELECTIVE

Teaching scheme  
Lectures-1 nos./ Week  
Studios-1 nos./Week

Examination scheme  
Paper : Nil  
Sessional (Internal) : 50  
Sessional (External) : Nil

### OBJECTIVES:

The subject of Electives has been introduced in syllabus with specific intention of in depth study of a particular subject of student's liking in greater detail but In the larger context of overall scope of Architecture syllabus at undergraduate level. This will give students an opportunity to develop their skills in a subject they may opt, to make their career in future. Architectural practice is a team effort In which persons of different skills in varied fields are required such as Concept Developers, Technical / Working Drawing Experts, Specification Writers, Quantity Surveyors, Project Managers, Contract Managers, Interior Designers, Architectural Photographers, Architectural Journalists, Signage and Graphic Designers, Energy Consultants, Building Services Consultants, Marketing Managers etc. In depth study in Electives will prepare the technical base of the students. Since the Architectural Projects in future are going to be very complex, the vital need of support staff in Architectural Practice will be fulfilled and the student's skills and talent will be effectively used.

Study of any two ( 1 in each term) particular subjects of student's liking in greater detail but in the larger context of the overall scope of Interior Design Syllabus at undergraduate level.

1. Computer Applications in Project Management
2. Labour Laws and Management
3. Project Finance
4. Building Byelaws
5. Project Contract Systems
6. Estate Management.
7. Human Resources Development
8. Project Assessment and Valuation

### 1. COMPUTER APPLICATIONS IN PROJECT MANAGEMENT

- Overview of time management principles
- Overview of Bar charts and CPM
- Computerized network techniques and schedules
- Introduction to various computer software packages
- Creating project schedules
- Adding Resources
- Learning to extract information
- Creating reports and charts



## **2. LABOUR LAWS AND MANAGEMENT**

- Introduction to labour laws in India.
- Labour disputes and settlement issues.
- Management aspects relating to labour laws.

## **3. PROJECT FINANCE MANAGEMENT**

- **Project Formulation:**  
What is a Project? Investment Opportunities, Generation and screening of Project Ideas, Project identification, Project rating, Preliminary Analysis, Market, Technical, Financial, Economic and Ecological-pre-Feasibility Report, Project Estimates and Techno-Economic Feasibility report, detailed Project Report, Different Project Clearances
- **Project Estimation:**  
Importance of estimation, Methods of cost estimating, Parameter cost estimating, Cost capacity factor, Detailed cost estimation, Provision for escalation, inflation, Provision and operation of Contingency provisions.
- **Project Costing:**  
Project cash flows, time value of Money, Cost of Capital
- **Project Appraisal:**  
NPV, BCR, IRR, ARR, Urgency, pay back period, Assessment of various methods, Indian Practice of investment appraisal as followed by institutions for Private projects & for government projects, International practice of Appraisal, Analysis of Risk, Different methods, selection of a Project and Risk Analysis in Practice.

## **4. BUILDING BYE LAWS :**

- Need and significance of building byelaws as development rules .
- Study and application of some typical byelaws on projects.

## **5. PROJECT CONTRACT SYSTEMS :**

- Various types of contract systems and their suitability for diverse kind of projects.
- Merits and demerits of different kinds of systems.
- Management of contract

## **6. ESTATE MANAGEMENT**

- **Introduction to built facility management:** Need, functional planning, workspace ecology, worker productivity, space planning, needs analysis
- **Property maintenance:** Maintenance planning, support services, obsolescence and refurbishment, outsourcing
- **Facility performance audit:** Premises audit, health & safety, whole life assessment.
- **Financial aspects:** Budgets, budgetary control depreciation.
- **Disaster recovery plans**
- **MIS for facility management**

## **7. HUMAN RESOURCES DEVELOPMENT**

- Importance of Human resources, sources of personnel
- Staffing & recruitments; job analysis, job description, job specification, Recruitments tests,
- Selection & placement, Training: Need for Training, Training Objective, Strategies and methods
- Training Assessment, Performance appraisal, Compensation, basic pay, variable pay, merit rating, Job Evaluation

**NOTE:** Detailed syllabus for all Elective Topics will be finalized by Individual College in consultation with expert Faculty, considering the time and marks allotted to the subject.

### **SUBMISSION DETAILS:**

The students are expected to study the selected topic In depth, Including the basic principles, and their application In built projects by undertaking case studies, necessary site visits, and collecting all the relevant Information to make It an exhaustive study and present It in a well documented format having A-3/ A-4 size papers property filed In a file with a signed certificate

from concerned Teacher/Expert slating that the study was carried out under his guidance and countersigned by the Principal/ Academic Co-coordinator.

## **413488- DISSERTATION**

Teaching scheme

Lectures- 0 nos./Week  
Studios - 2 nos./Week

Examination scheme

Paper : NIL  
Sessional (Internal) : 50  
Sessional (External) : 50

### **OBJECTIVES:**

- The subject of Dissertation is included in the syllabus with the intention of acquainting students in research methodologies adopted while carrying out research in a particular subject.
- The subject is an introduction to the students in conducting systematic research in the subject of their choice but in overall Architectural and Interior Design context. In professional career the Architects/ Interior Architects are required to carry out investigations on various aspects of the project including its socio-economic aspects, overall viability, short term and long-term gains etc, the project's environmental impact and its analysis, traffic surveys, building performance analysis and appraisal etc.

- The students are expected to get orientation in **Technical Writing**, which is an emerging field for making a career. At postgraduate level the students are trained to carry out in depth study and research of more complex topics.
- The Dissertation is expected to impart initial training at undergraduate level so as to prepare them for more advanced research at postgraduate level.

### **COURSE DETAILS:**

The selection of subject topics in the field of interiors or related to interiors is left to the students. It is possible that in keeping with the school's commitments and over all policy and mission statement, certain themes may be selected which will have social and architectural relevance and the research carried out will be useful to various organizations such as public bodies, corporations, NGO'S etc which are looking out for this kind of research to take policy decisions at State and National level. Individual College will appoint resource persons who have got sufficient experience in carrying out research and in Technical Writing.

The students are expected to carry out this activity individually or in groups but the submission of report will have to be done individually.

The report will contain three parts namely,

1. Reasons for selecting a particular topic and detailed synopsis of the topic selected.
2. Research Methodology adopted which will include personal interviews, written correspondence, questionnaires, sample surveys, photographs, statistical data and any other supporting documents.
3. The last part will contain actual report in approximately 3000 words with proper illustrations, pie charts. Photographs etc. with student's inferences, and recommendations.
4. Juries will be conducted in three stages with periodic marking as study, analysis & conclusions and Final report including recommendations.

The students will take extra precaution in using proper technical language for which the College shall make sufficient reference material available. The College will take this opportunity in identifying relevant themes and organizations in their neighboring areas and make this research available to them, thereby contributing to public well being and in the process giving vital training to the students.

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