

RAJIV GANDHI PROUDYOGIKI VISHWA VIDYALAYA, BHOPAL (M.P.)

SCHEME OF EXAMINATION - BACHELOR OF ARCHITECTURE

FOURTH YEAR - EIGHTH SEMESTER

| S. No. | Subject Code | Subject Name | Maximum marks allotted | | | | | Teaching hours per week | | | Total credits | Exam Duration |
|--------|--------------|-------------------------------------|------------------------|--------------|------|-----------|------------------|-------------------------|--------------|-------------------------|---------------|---------------|
| | | | Theory | | | Practical | | Lecture (L) | Tutorial (T) | Practical/ Studio (P/S) | | |
| | | | END SEM | Mid sem test | Quiz | End Sem | Lab/ Studio work | | | | | |
| 1 | AR 421 | Architectural Thesis | - | - | - | 250 | 350 | - | 2 | 16 | 18 | - |
| 2 | AR422 | Urban Design | 50 | 20 | 10 | - | 20 | 2 | - | 2 | 4 | 3 |
| 3 | AR 423 | Professional Practice and Valuation | 50 | 20 | 10 | - | 20 | 2 | 1 | 1 | 4 | 3 |
| 4 | AR424 | Elective- IV –(Any One) | 50 | 30 | 20 | 50 | 50 | 2 | 1 | 1 | 4 | 3 |
| | | | 150 | 70 | 40 | 300 | 440 | 6 | 4 | 20 | 30 | 1000 |

AR421 – Architectural Thesis:

The students' work shall be evaluated through stage wise internal jury, conducted periodically during the semester. The final jury shall be conducted as End semester practical exam. The final jury consists of the following jury members: 1. Head of the Department 2. One Professor 3. One Associate Professor 4. One Assistant Professor 5. Guide 6. Three external members out of these one from academics and one from field is compulsory.

AR424 - Elective IV–(Any One):

1. Disaster Management & Earthquake resistance Structures 2. Intelligent Building Systems 3. Architectural Journalism 4. G.I.S and Remote Sensing

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| 1 | AR 421 | Architectural Thesis | - | - | - | 250 | 350 | - | 2 | 16 | 18 | - |

AIM: All the four years of learning architectural design and allied subjects culminate in design thesis project to motivate a student in investigative attitude individual methodology, thus to train in handling projects independently. The Architectural Thesis is the culmination of the development of the student's knowledge, attitudes and skills over the course of studies in architecture. It is an occasion for exercising conscious choices in the field, based on the student's personal abilities and inclinations, and for testing out his commitment.

Course Content:

Thesis Project:

Each student will select a subject of an architectural interest in consultation with the committee appointed by the Head / Principal of the Dept. /Institution. The subject will have to be approved at the beginning of the eighth semester. The evolution of the thesis project will be continuous and the student will have to give at least three seminars/ submissions before the final submission. The thesis project shall be submitted in the form of bound report, drawings, models etc. in a manner as stipulated in THESIS MANUAL on the date prescribed by the Department.

The student, in consultation with the faculty, is expected to demonstrate through an imaginative approach, his expertise in effecting positive changes in our built environment.

Note: Architecture work programme and Architecture thesis manual shall be supplied by the department.

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LIST OF TEXT AND REFERENCE BOOKS:

AR 421 - Thesis Project

1. Thesis manual: SOA Publications (for private circulation only)
2. Instruction Manuals on report writing.
3. Relevant Books as per topic
4. “Planning by E. & O.E”. Liffé book Ltd., London.
5. D.E. CHIRAIRA & CALLENDAR, “Times Saver Standard for Building Types”.
6. RUDOLF HERGE, “Nuferts Architects Data”, Cross By Lockwod & Sons Ltd.
7. EDWARD D. MILLS, “Planning The Architects Hand Book”.
8. National Building Code.

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| 2 | AR422 | Urban Design | 50 | 20 | 10 | - | 20 | 2 | - | 2 | 4 | 3 |

Aim: The objective is to develop an understanding of Urban Design through their evolution in history and it being an integral part of the architecture at bigger level. It is seen as a course that addresses issues of urban environment and sustainability. The studio will also look at the further development of the first term architectural design project in urban peripheries context to understand the overall impact of architecture..

Course content:

- Definition of Urban Design, scope of urban design in Indian context and its integration with urban planning.
- Historical development and approaches to Urban Design, spatial design, classical, functional, ornamental etc. space orders.
- Urban form and its elements, visual order of forms, sequence, scale, visual space dynamics. Various surveys needed to document visual aspects of environments.
- Urban design concepts of Doxiadis, Sarinen, Kelvin Linch, Le Corbusier and others.
- Urban structure and design rational inter- relationship economic activities, public organization, communication systems. Urban conservation and land use structure.
- Review and designing of urban renewal and redevelopment projects for old and new towns.

Note: Sessional will be in the form of drawings and reports on the study on any area, identification of the problem areas and proposals in the form of drawings for the same.

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LIST OF TEXT AND REFERENCE BOOKS:

1. GALLION "Urban Pattern:, CBS Publishers & Distributors.
2. S. PAUL D., "Urban Design and Architecture".
3. PETER KATZ, "The new Urbanism", McGraw Hill.
4. ZURICH GOLDERTAL, "Space Time and Architecture", Printed in U.S.A.
5. GORDEN CULLEN, "Town Scape".
6. BACON, EDMUND N., "Design of Cities", Thames.

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| 3 | AR 423 | Professional Practice and Valuation | 50 | 20 | 10 | - | 20 | 2 | 1 | 1 | 4 | 3 |

AIM: The objective of this subject is to equip the students with sufficient knowledge of professional practice, code of conduct and ethics. Along with the students shall be well equipped with the knowledge of valuation and arbitration

Course Contents:

1. Introduction to Architectural Profession, Role of Professional Bodies, the Architects Registration Act, 1972.
2. The duties, liabilities and relationships of client, contractor and other technicians. The code of professional conducts and conditions of engagement of Architects. Scale of remuneration for Architectural services and mode of payments.
3. Types of tenders, tendering process, Execution of contract, Problems in operation of contract.
4. Architectural competitions, office organisation, administration & management, documentation & maintenance of accounts, Arbitration, Easement and laws relating works, Dilapidation and waste.
5. Office organization and administration, nature of partnership, registration and dissolution of firms. Statutory obligations, office managements, filing of documents and drawings, accounts and audits, staff personals, their salaries, incentives etc.
1. Valuation: Importance of valuation for rental, income/wealth tax, selling/ purchasing. Values, sinking fund, capitalized cost year purchase, methods of depreciation and valuation tables Mortgage/ lease, fixation of rent of private/ Govt., residential, commercial buildings etc. Different methods of valuation. Valuation reports, duties and responsibilities as registered government valuer

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2. Arbitration: Role and qualities of an arbitrator. Arbitration act-1940 with amendment till date Arbitration with reference to competitions, valuation, contract, land disputes and legal implications.

Note: The students shall prepare the presentation on these topics and present on ppt.

LIST OF TEXT AND REFERENCE BOOKS:

AR423 - PROFESSIONAL PRACTICE

1. R. H. NAMAVATI, “Professional Practice”, Lakhani Book Depot.
2. H. H. TURNER, “Architectural practice and Procedure”, B.T. Batsford Ltd.
3. I.I.A Publications (Articles of Agreement, scale of professional charges, competitions).

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| 4 | AR424 | Elective- IV –(Any One) | 50 | 30 | 20 | 50 | 50 | 2 | 1 | 1 | 4 | 3 |

AR424 - Elective IV–(Any One): 1. Disaster Management & Earthquake Resistant Structures.

2.Intelligent Building Systems. 3. Architectural journalism. 4 GIS & Remote sensing

Disaster Management & Earthquake Resistant Structures

Aim: The objective is to develop an understanding of disaster and its management at pre and post disaster conditions, knowledge gained through the study of history of various types of disaster and their management. It is seen as a course that addresses issues of disaster and their management.

Course content:

DISASTER MANAGEMENT

- Types of disaster, meanings and related definitions.
- Causes and effects of natural hazards.
- Disaster profile of India.
- Disaster preparedness and response and rehabilitation.
- Roles and responsibilities of different agencies.

Earthquake Resistant Structures:

Note: Sessional will be in the form of report on the above topics and prepare a report for disaster management for a given hypothetical / real site/ building.

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2 INTELLIGENT BUILDINGS:

- 1) Introduction & Origins of the Intelligent Building Concept: a. Definition and characteristics of Intelligent Buildings, A brief history of the Development of I.B. Concept through recent times highlighting. b. Automated buildings (1981-1985) c. Responsive buildings (1986-1991) d. Effective Buildings (1992-1997)
- 2) Study of Concepts of Building Management (facility management), Effective Space Management, Business management and the various models of Building Intelligence.
- 3) Technology Evolution and the IT market place: Present technological context, Exploration of user IT systems, IT demands on building and services, Building Control systems, study of development of Computer Integrated Building from single function systems to integrated solutions.
- 4) Key Issues for Intelligent Buildings: Multiple activity settings, Generic analysis of space utilization, Models for shared space use. The development of briefing process including design activity and building element life- cycles, the match between organizational requirements and building technologies, A brief study related to Site issues, Shell issues, Skin issues, Building services and technology issues.
- 5) Managing the Building: Study and importance of facility management planning & operation techniques.
- 6) Intelligent Design & Construction: Client expectations, use of IT for effective communication of architectural ideas to clients, locating people and information, introduction to building efficiency studies with respect to life cycle costs. NOTE: There will be study assignments given to students on various Units.

LIST OF TEXT AND REFERENCE BOOKS:

1. Payne, F. William, "Strategies for energy efficient Plants and intelligent buildings" Fairmont Press, USA, Distributor Prentice Hall India, New Delhi.

3 ARCHITECTURAL JOURNALISM

- 1) Journalism in general
- 2) Theories of journalism
- 3) Techniques and processes
- 4) Contemporary Architectural journalism
- 5) Digital Journalism
- 6) Architecture, Arts and Journalism / Media
- 7) Cinematography

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8) Profile writing (Corporate to Individual)

9) Critical appraisal of Technical, Literature, Visual and Media.

10) Photo Journalism.

Note: There will be study assignments given to students on the above mentioned course.

4 GIS & Remote Sensing:

Course Objective: To provide an understanding of the basic concepts and uses of GIS technology so that spatial analysis can be incorporated as an additional aspect of students' studies.

Course Description: Introduction to geographical information system, data types, raster data, vector data, spatial data.

G.I.S. applications, components of a G.I.S., history of G.I.S., graphical user interface (G.U.I.), projection, data model, G.I.S. Vendors, topology, attribute data, joining spatial and attribute data, G.I.S. Operations, spatial data input, data analysis, G.I.S. model and modeling, the essential difference among CADD AM/FM and G.I.S. G.I.S. data elements,

G.I.S. data elements, G.I.S. data sources collection and entry, digitizing, GPS surveying, digital ortho-photography, satellite imagery, aerial photography, radio controlled aircraft, oblique photography, vertical photographs, aerial video.