

Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal
BACHELOR OF ARCHITECTURE

VIII Semester(CBGS) For batches admitted in July,19(w.e.f. July, 2019)

S. No	Subject Code	Subject Name	Category	Maximum Marks Allotted					Total Marks	CT HR S.	Contact Periods per week			Total Credits
				Theory Slot			Practical Slot							
				End Sem.	Mid Sem.	Quiz/ Assignment	End Sem.	Lab work & Sessional						
1.	AR421	Architectural Design – VIII	DC- 17	-	50	50	50	150	300	8	2	2	4(1.5)	10

COURSE OUTCOME:-

After completion of this course student will be able to-

1. Handle large scale projects
2. Develop the skill to understand the social issues at urban level.
3. Develop multifunctional complexes.

Design of a multi-functional complex of buildings in the metropolitan context. The design problem may be large scale, handling of a group of buildings or a cluster of buildings, preferably urban in nature to develop an understanding for problems associated with site planning, layout of roads and services, traffic and planning controls and impact analysis.

A visual and functional study of urban spaces in use, urban activities, services and evolution of various spaces.

The design problems may include projects like Re-densification, campus planning, factories, 'place' design etc.

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2.	AR422	Urban Design	DC- 18	50	30	20	50	100	250	5	2	1	2	4

COURSE OUTCOME:-

After completion of this course student will be able to-

1. understand of Urban Design through their evolution in history and it being an integral part of the architecture at bigger level
2. Develop the skill to understand the social issues at urban level.

Course content:

UNIT 1: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.

UNIT 2:Urban form and its elements, visual order of forms, sequence, scale, visual space dynamics. Various surveys needed to document visual aspects of environments.

UNIT 3:Urban design concepts of Doxiadis, Sarinen, Kelvin Linch, Le Corbusier and others.

UNIT4:Urban structure and design rational inter- relationship economic activities, public organization, communication systems. Urban conservation and land use structure.

UNIT5: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.

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.	AR423	Project Management & Building Economics	PAEC-4	50	30	20	-	-	100	4	2	2	-	4

COURSE OUTCOME:-

After completion of this course student will be able to-

1. Understand different aspects of management.
2. Learn how to manage different resources.
3. Understand the factors effecting national economy.
4. Learn about new material and innovative technique

Course Contents:

SECTION-A: PROJECT MANAGEMENT:

1. Introduction: Introduction to project management concepts, objectives, goals and different aspects of management, traditional management systems, Gantt's approach, bar charts, project programming, time estimate etc.
2. Project programming, resource balancing, phasing of activities, programme scheduling, project control, reviewing, updating and monitoring modern management concepts.
3. Project assessment and project cost, job size, divisions of responsibilities, liaison with owners and their representatives, feasibility study, project report, construction financing facilities etc.
4. Construction Management: Conditions of contract, their applications, quality and quantity controls, time and cash contract recording, checking and certifying with coordination of all building activities.
5. Project Monitoring: C.P.M. , P.E.R.T. & other uni-dimensional techniques for project planning, scheduling and control.11

SECTION-B: BUILDING ECONOMICS

1. Introduction: Broad features of Indian economy, economic significance, features in development plans, Macroeconomic concepts & their application, Money & Banking functions, factors of production such as land, labour, building industries and money and management etc.
2. Land Economics: Land as a limited resource, demand for land development and need for its conversation, public policies for land utilization and land development, theories of land values, land acts & problems in land acquisition & land development programme etc.
3. Building Economics: Building efficiency and cost reduction through planning, design of building components, use of new materials and Innovative construction etc. rent & other building acts, economics of high rise buildings etc. Optimization of cost or affordable cost through various measures has become an important issue since prices escalate fast. The course aims to make aware about the issues/methods involved.

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LIST OF TEXT AND REFERENCE BOOKS:

PROJECT MANAGEMENT

1. VASANT DESAI, "Project Management", Himalaya Pub. House.
2. S. CHOUDHARY, "Project Management", Tata McGraw Hill.
3. P.K. JOY, "Handbook of Construction Management", Macmillan.
4. PRASANNA CHANDRA, "Projects, Planning, Analysis, Selection, Implementation & Review", McGraw Hill.
5. DENNIS LOCK, "Project Management", Coles Pub. Co.

BUILDING ECONOMICS

1. P. A. STONE, "Building Economy", Pergamon 1976.
2. I. H. SEELEY, "Building Economics", Mcmillan 1977.
3. P.T. GHAN, "Engineering Economics", Pune VidyarthiGrihaPrakashan.
4. MISHRA, "Indian Economy", Himalaya Pub. House.

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4.	AR424	Landscape & Site Planning	DC19	50	30	20	20	30	150	6	2	-	4	4

COURSE OUTCOME:-

After completion of this course student will be able to-

1. Understand about site planning and landscape architecture.
2. Learn about the natural and manmade environment.
3. Understand enhancing the outdoor environmental quality in architectural design

LANDSCAPE DESIGN

Unit 1. Definition of landscape, its scope and importance in architecture and planning
Levels of landscape planning.

Unit 2. Brief outline of development of gardens in history. The principles and design philosophy of Mughal & Japanese gardens with examples.

Unit 3. Landscape design process, information needed for landscape survey. Land, water & plants as landscape elements, their functional & aesthetical considerations in landscape design. Man made elements in landscape design-lamp posts, sign boards, garbage bins, fences etc.

Unit 4. Grading its importance, grading process & methods of estimating earth volumes. Slopes for various outdoor functional activities. Surface runoff calculations & design of surface drainage system. Treatment of ground surfaces, kinds of paving materials.

Unit 5. Planting Design-Understanding plant material as a design tool. Design characteristics of plants. Selection of plant materials for road side plantation, court yards, parking areas, near water bodies indoor areas etc. Details of establishing & grass lawn. Fertilizers their types & uses.

SITE PLANNING

Unit 1 Site planning, its interpretations, scope its importance Natural & Man made environment. Ecosystem, Ecological balance, interaction between built environment & ecosystem Ecological approach to design.

Unit 2. Natural Resources, Land, Water & Plants their environmental & ecological considerations. Macro & Micro climate, Microclimatic analysis, climatic Elements & their modification.

Unit 3. Site selection criteria, site survey, inventory & analysis, site planning process. Site development, guidelines for excavation & grading, circulation, site drainage, water supply, vegetation cover & Landscape furnishings.

Unit 4. Circulation systems: Types, hierarchy & layout patterns, planning & design criteria for pedestrian movement, vehicular movement & parking areas.

Unit 5. Buildings & outdoor spaces, their relationship & composition, Elements of visual design- point, line, form, colour & texture. Site Volumes, enclosures, site structure expression.

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Note: Sessional shall be prepared in the form of notes and calculations, drawings etc. as per above topics.

LIST OF TEXT AND REFERENCE BOOKS:

1. J.O.SIMMONDS, "Architecture, A manual of site planning and design", McGraw Hill.
2. "Time Saver Standard for Site Planning"
3. R. JENE BROOKS, "Site Planning", Princeton Hall.
4. J.O. SIMMONDS, "Introduction to Landscape Design".
5. J.O. SIMMONDS, "Earth Scape"
6. "Water Scape"
7. BOSE & CHOUDHARY, "Tropical Garden plants in color", Horticulture & Allied Pub.

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5.	AR425	Elective III*	DE- 7	-	30	20	10	20	80	4	1	1	2	3

Elective III*: 1) GIS ,2) Architectural Journalism ,3) Vaastu in Architecture

COURSE OUTCOME:-

After completion of this course student will be able to-

1. Understand the basic concepts and uses of GIS technology.

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
- 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 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.

Vaastu in Architecture

As the name of the subject suggests that it is shastra (science) of VASTU (BUILDING) and precisely this has given the identity to our ancient Architecture. This Shastra embodies the cosmic, metaphysical and astrological, astronomical, mystic and physical characteristic. This subject is only introductory to teach the very basic of Vastushastra and its application to contemporary architecture.

1. Review of ancient wisdom, introduction to Vastushastra its relevance and importance.
2. Fundamental cannons: a) Importance of directions (dignirnaya). b) Vastu-padavinyasa. c) Mana. d) AyadiSadvarga. e) Patakadi Satchandas.
3. Covering elements of villages / towns, road beautification and application in todays context.
4. Civil and Secular Architecture.
5. Application of Vastushastra for present day usages such as individual house/ flats/ industries / offices / temples/ etc.

Note: the sessional work will include collection of information from various sources ,case studies of auspicious/non auspicious building and application of Vastushastra in new designs/plans.

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6.	AR426	Seminar	SEC	-	-	-	10	10	20	3	1	-	2	2

COURSE OUTCOME:-

After completion of this course student :-

1. Will be able to do deep research on particular subject paper.
2. May get a path for further studies.

The Seminar shall be a research paper on a subject of theoretical nature on any aspect of architecture. This may or may not be related to the thesis topic. The overall supervision shall be by a Seminar Co-ordinator to be Appointed from within the faculty and the individual guidance shall be provided by experts in the subject, preferably from within the faculty but in exceptional cases, if found expedient in the opinion of the Coordinator, outside experts may be appointed.

The thrust of the seminar shall be on achieving a thorough understanding of the topic of study and on the ability to present it to an intelligent and critical guidance.