M.Arch. Syllabus

Section 1: Architecture and Design

1. Visual composition in 2D and 3D
2. Principles of Art and Architecture
3. Organization of space
4. Architectural Graphics
5. Computer Graphics– concepts of CAD, BIM, 3D modeling and Architectural rendition
6. Anthropometrics
7. Planning and design considerations for different building types
8. Site planning
9. Circulation- horizontal and vertical
10. Barrier free design
11. Space Standards; Building Codes
12. National Building Code
13. Elements, construction, architectural styles and examples of different periods of Indian and Western History of Architecture
14. Oriental, Vernacular and Traditional architecture
15. Architectural developments since Industrial Revolution
16. Influence of modern art on architecture
17. Art nouveau
18. Eclecticism
19. International styles
20. Postmodernism
21. Deconstruction in architecture
22. Recent trends in Contemporary Architecture
23. Works of renowned national and international architects

Section 2 - Building Materials, Construction and Project Management

1. Behavioral characteristics and applications of different building materials: mud, timber, bamboo, brick, concrete, steel, glass, FRP, AAC, different polymers, composites.
2. Building construction techniques, methods and details
3. Building systems and prefabrication of building elements
4. Proportions & Modular Theory Basics
5. Estimation
6. Specification
7. Valuation
8. Professional practice
9. Construction planning and equipment
10. Project management techniques e.g. PERT, CPM etc

Section 3 – Environment

1. Ecosystem- natural and man-made ecosystem
2. Ecological principles
3. Thermal comfort, ventilation and air movement
4. Principles of lighting and illumination
5. Climate responsive design
6. Solar architecture
7. Principles of architectural acoustics
8. Green Building- Concepts and Rating
9. Environmental pollution- types, causes, controls and abatement strategies

Section 4 - Urban Design

1. Concepts and theories of urban design
2. Public Perception
3. Townscape

4. Public Realm
5. Urban design interventions for sustainable development and transportation
6. Historical and modern examples of urban design
7. Public spaces, character, spatial qualities and Sense of Place
8. Elements of urban built environment – urban form, space, structure, pattern, fabric, texture, grain etc.
9. Principles, tools and techniques of urban design
10. Site planning
11. Landscape design
12. Development controls – FAR, densities and building byelaws

Section 5 – Housing

1. Housing Concepts, principles and examples of neighborhood
2. Housing typologies
3. Slums
4. Affordable Housing
5. Housing for special areas and needs
6. Residential densities
7. Standards for housing and community facilities
8. National Housing Policies, Programs and Schemes

Section 6 - Building Services

1. Building Services: Water supply
2. Sewerage and drainage systems
3. Sanitary fittings and fixtures
4. Plumbing systems
5. Principles of internal and external drainage system
6. Principles of electrification of buildings
7. Intelligent Buildings
8. Elevators and Escalators - standards and uses

9. Air-Conditioning systems
10. Firefighting Systems
11. Building Safety and Security systems

Section 7 - Disaster Resistant Buildings & Management

1. Basics of Eco-systems, Factors that cause global climatic changes. Overview of major natural disasters, design and planning solutions for disaster mitigation.
2. Introduction to Natural Disasters
3. Factors Causing Disasters
4. Design and Retrofitting of Buildings for Earthquake resistance