Sl. No.	Sub. Code	Theory	Contact Hours			Credit
			L	T	P/S	
3.	22AR133	Technology in Architecture	3	0	0	3

Course Objective	To give the student an initial grounding on the subject so that they have this basic information for use in the earlier semesters. This engineering knowledge will be elaborated upon in the subsequent advanced semesters.
Anticipated Learning Outcomes:	To gain a basic knowledge of the technical skills/ knowledge expected from an architect in order to be able to lead a team of consultants; to understand that Engineering in its several forms is an inseparable part of Architecture; ability to explore multi-disciplinary facets of architecture.
Module 1 Types of structures	A brief overview of six types of structures in Civil engineering, namely 1. Load bearing structure; 2. Framed structure; 3. Truss Structure; 4. Shell Structure; 5. Pre-engineered structure; and 6. Mass Structure. Component of Building structures: Sub-structure & its types, materials used; Super-structure & its components, materials used, etc.; Roofing: Definition, types and materials.
Module 2 Sanitation and water supply	A brief introduction of the five parts of water supply and sanitation system to include collection, transport, treatment, disposal or reuse.
Module 3 Electrical services	A brief overview of internal electrification: including electrical wiring for lighting and power distribution, telephone, EPABX, Power points (wall outlets), Light fixtures and switches, Internet, Distributed audio, Security monitoring, Security CCTV, etc.
Module 4 Mechanical services	A brief idea of air-conditioning for residential buildings; home lifts, etc. IOT in architecture: home automation and smart technology in modern homes.
Module 5	Site visit to be organized to familiarize students with all the technologies.

Note: Most Architectural subjects do not have Textbooks. The Reference books mentioned below are for reference only and University question paper should be prepared from the Syllabus descriptions.

References

1. *National Building Code of India. (2016).*
2. *Punmia, B. C., Jain, A. K. and Jain, A. K. (1995). Water Supply Engineering. New Delhi: Laxmi Publications.*
3. *Rangwala, S. C. (2005). Water Supply and Sanitary Engineering. Charoter Publishing.*
4. *Handbook Water Supply and drainage with Special Emphasis on Plumbing. Bureau of Indian Standards, New Delhi.*
5. *Bureau of Indian Standards. (2005). Code of Practice for Electrical Wiring Installations IS-732.*
6. *Electrical Wiring and Contracting (Vol.1 to Vol.4).*
7. *Handbook for Building Engineers in Metric Systems (1968), NBC, New Delhi.*
8. *William H. Severns and Julian R. Fellows. Air conditioning and refrigeration. John Wiley and sons, London*
9. *Khurmi, Gupta and Arora. Refrigeration and Air Conditioning, S Chand and Co.*
10. *Rangwala, S. C. (1963). Building Construction: Materials and types of Construction. 3rd Ed. New York: John Wiley and Sons.*