

L J UNIVERSITY
L J SCHOOL OF DESIGN
Syllabus for Bachelors of Design
Second Year I Semester 3

CODE	SUBJECT	CREDIT
10180304	Building Services - I	2
AIM		
	Understanding Services as integral part of a good interior design proposal water supply & Drainage fundamentals into toilets, kitchen etc. Water as an element in interiors in form of fountains, aquariums, water falls etc. and explore various methods of operation	
CONTENT:-		
	<ul style="list-style-type: none"> • WATER SUPPLY IN BUILDINGS Standard of portable water and methods of removal of impurities, Consumption or demand of water for domestic purposes, Service connection from mains, House-service design, tube well, pumping of water, types of pumps, cisterns for storage • BUILDING DRAINAGE Layout, Principles of drainage, Trap type, materials and functions, Inspection chambers, Design of Septic tanks and soak pits, Ventilation of house drains Anti-syphonage or vent pipes, One and two pipe systems Sinks, bath tub, water closets, flushing cisterns, urinals, wash basins, bidet, shower panel etc. • PLUMBING Common hand tools used for plumbing and their description and uses, Joints for various types of pipes, Sanitary fitting standards for public conveniences Different types of pipes and accessories for water supply, controlling fixtures like valves, taps, etc. Fittings and Choice of materials for piping: cast iron, steel, wrought iron, galvanized lead, copper, cement concrete and asbestos pipes, PVC pipes Sizes of pipes and taps for house drainage, Testing drainage pipes for leakage - smoke test, water test etc, CI pipes for soil disposal and rain water drainage, Wrought iron, steel and brass pipes. Rain water disposal drainage pipes spouts, sizes of rainwater pipes • SOLID WASTE DISPOSAL Solid wastes collection and removal from buildings. On-site processing and disposal methods. Aerobic and Anaerobic decomposition • SERVICES STUDIO Preparation of plumbing layout of a single storey building & working drawings of various fittings and fixtures of water supply and sanitary installations. 	
METHODOLOGY:-		
	<ul style="list-style-type: none"> • Interactive discussions and presentations on topics, Assignments based on theory portions, Live case study to understand systems Bathroom and toilet design guidelines Incorporating and applying the understanding into studio project 	
REFERENCE BOOK:-		
	<ul style="list-style-type: none"> • Charangith shah, Water supply and sanitary engineering , Galgotia Publishers • A Kamala & DL Kanth Rao, Environmental Engineering, Tata McGraw – Hill publishing Company Limited • Technical teachers Training Institute (Madras), Environmental Engineering, Tata McGraw – Hill publishing Company Limited • Marrimuthu, Murugesan, Padmini, Balasubramanian, Environmental Engineering, Pratheeba publishers 	