WATER AND SANITATION

This toolkit has been designed to introduce Water And Sanitation for students from various disciplines pursuing their graduation. The kit and its implications in an architectural school have been studied in this particular scenario. The kit with its easy module system can be plugged in for a holistic understanding of various allied systems.
The toolkit could be introduced as a part of the technical module from Semesters 5 onwards, each semester dealing with the corresponding studio project and the studies complementing the design process.

Semester 5 – Module 1
Semester 6 – Module 2
Semester 8 – Module 3
Semester 9 – Module 4

The toolkit could also be introduced as a plug-in into the architectural course as a 3 day workshop with 4 tutor hours each.

Day 1
Technical Skill Development

Day 2
Analytical Skill Development

Day 3
Collaboration

Each Module is further divided based on the nature of work as Technical, Analytical and Collaborative Skill Development.

Technical Skill Development
- Data Collection
- Research Abilities
- Team Work

Analytical Skill Development
- Analysis
- Inference Gathering
- Presentation Skill

Collaboration
- Design Influence

The limited hours of the programme shall in the shortest of time span facilitate an understanding of Sanitation systems such that the architectural education shall be a holistic process.
Objective
To introduce the students to the various elements elemental for human survival in the 21st century, Air, Water, Food, Energy, Waste Management. This shall pave way for students to understand Sanitation and its implications in architecture.

Contents
- The various allied elements, Air Water, Food, Energy and Waste Management
- Need and benefits of safe sanitation.
- Introduction of Sanitation terminology, concept and context
- Issues and Impacts of Sanitation on Environment and Public health
- Current situation of Sanitation at National, State and Regional level Rural & Urban areas.

Activities
- Case study of Sanitation in local precincts
- Mapping real case activities based on the case study
- Identifying real issues
- Studying factors behind the problem

Objective
To attain a better understanding of Drainage systems, Waste Management Systems and Water supply.

Contents
- Drainage system Processes at Urban
- Water Supply in Urban Context
- Waste Management System
- Design Solutions for the system.

Activities
- Group case study of Rural and Urban area (National/ International and one Local)
- Evaluation of system: efficient/ inefficient and quick design solution
- Analysis of the Waste Management in a particular case study at Urban Context

Semester Outline
The semester design involves the spatial study of an individual residence and its design. The sanitation study shall enable the students to relate the details in the house and sanitation needs and its impact at various scales, micro and macro.

Module 1

Module 2
Objective
To attain a better understanding of Policies and Finance Programmes for an overview of sanitation framework.

Contents
- Various Government policies and campaigns
  - Standards, materials, construction & budget
  - Pros and cons of the policies – Refer various journals
- Finance
  - Government subsidy
  - Micro financing and Revolving funds
- Social aspects
  - Stakeholder identification
  - Community participation – awareness programs

Activities
- Case study of Sanitation in local precincts
- Mapping real case activities based on the case study
- Identifying real issues
- Studying factors behind the problem

Objective
To be able to partake in the design process with a technical understanding of the system

Contents
- Various technologies and treatment implementation of Sanitation.
- Design considerations of technologies – climate, topography, economy & needs of local.
- Government approved norms and standards of systems
- Cost estimation of system – Considering Local availability.
- Operation & Maintenance

Activities
- The existing design problem could be produced with a layer of Sanitation thereby understanding the practical concerns of the design.