


WATER AND SANITATION



This toolkit has been designed to introduced Water And Sanitation for students of from various disciplines pursuing their graduation. The kit and its implications in an architectural school has 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.

Option 01

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

Option 02

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



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

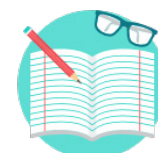
Analytical Skill Development

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



6 Hours



6 Hours

Module 1

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.

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



6 Hours



6 Hours

Module 2

Semester Outline

The major studio in the semester emphasises on the value of details and developing the details through a rigorous process. The drainage and water supply study shall supplement this rigour of the studios.

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



8 Hours



4 Hours

Semester Outline

The semester design involves with an urban insert programme. The policy framework and an understanding of the finance programmes shall thereby facilitate a better understanding of design insert .

Module 3

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.



4 Hours



8 Hours

Semester Outline

The studio involves the students to formulate their own design programme. Hence a technical understanding of the sanitation system shall facilitate the design incorporated with the sanitation system.

Module 4