

# HM-403: FACILITY PLANNING

Theory: 4 Credits

**Objective:** to make the student to know the operation level of the hotel and the maintenance.

## Course Content:

**Unit - 1 Introduction:** The role of facilities in the hospitality industry, cost associated with hospitality facilities, the cost of development and construction, cost of operation, cost of renovation and modernization, impact of facility design on facility management, components, layouts and materials, methods and types of construction, paints and varnishes.

**Unit - 2 Managing Maintenance :** systems, types of maintenance, maintenance management  
**Water And Waste Water Systems:** water usage in the lodging industry, water systems, water quality, water heating, swimming pool water systems, water conservation  
**Energy Management:** background, energy pricing, energy cost control and building systems, reducing guest room energy costs, reducing food and beverage production and service energy costs, reducing boiler and chilling energy costs, energy management and conservation systems.

**Unit - 3 Electrical Systems:** fuses and circuit breakers, distribution panels and wiring, electric Motors, controls and drive elements, electronic equipment, reading electrical utility meters, Checking the bill for electrical energy, ac and dc system of supply, power in ac single and three phase  
**Heating, Ventilation and Air Conditioning Systems:** guest room HVAC system, types, centralized systems, decentralized systems, guestroom HVAC maintenance, Refrigeration cycle, cooling systems operations and maintenance, factors influencing building comfort.

**Unit - 4 Lighting Systems:** basic definitions, light sources, natural lights, artificial light, lighting system design, design factors, lighting system maintenance, cleaning fixtures and lamps, replacing lamps, effects of maintenance on light outputs. 176

**Unit - 5 Safety and Security Systems:** safety and the hospitality industry, fire safety, fire Prevention, fire detection, fire notification, fire suppression, and fire control. **Basic Fuels:** types, calorific value, definition, comparison, cost calculation

## Reference Books:

1. Hospitality Facilities management and Design, David M. Stipanuk, Harold Roffmann  
Publisher: Educational Institute, AHMA
2. How things work-The Universal Encyclopedia of Machines, Volume 1 & 2
3. The Management of Maintenance and Engineering Systems in the Hospitality Industry, Frank D. Borsenik & Alan T, Stutts, Publisher: John Willey & Sons Inc. NY
4. Air Conditioning Engineering, W.P.Jones, Publisher: English Language Book Society / Edward Arnold
5. Building Construction, Sushil Kumar, Standard Publishers & Distributors, Delhi