ESM 316 BUILDING SERVICES AND MAINTENANCE I  2 UNITS

Department of Estate Management

Covenant University
1. ESM316
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The intention here is to expose student to the basic sciences and principles underlying building services and prepare them sufficiently for the courses in building services. The syllabus is as follows: -Fluids; hydrostatics; barometers; pressure gauges, forces on plane surface. Hydrodynamics; Steady, unsteady, uniform, and non-uniform flow; conservation of momentum and energy; Bernoullis theorem; friction formulae. Water supply: Characteristics of waters, chemical composition, impurities, temporary and permanent hardness. Sources and treatment of water. Lighting Introduction to lighting theory; natural lighting; lightning levels day light factors; illumination levels; glare. Acoustics Properties of waves. Sound and noise. External and internal sources of sound related to buildings. Transmission. Room acoustics. Moisture precipitation; snow, moisture migration through the fabric of building, condensation; dynamic condensation prediction. Note: It is desirable for these principles to be emphasized since this subject is the basis on which must be founded the studies concerned with buildings, the internal environment, and associated services. The concept of building maintenance, liability for defects in buildings, maintenance needs, nature of maintenance: rehabilitation, alterations and improvements, design and maintenance: concepts of tetro-technology in buildings life cycle costing and appraisal techniques, building management, janitorial suppliers and staff organization. Inventories listing and administration, group and paved area, maintenance of drainage works, accounts for various bills electricity, water etc, maintenance management: property management organizations and functions of maintenance; repairs obligations under tenancy agreements: