

CE/BOS/OE404/0210

K L UNIVERSITY

SOLID AND HAZARDOUS WASTE MANAGEMENT (09 – OE404)

SYLLABUS

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UNIT – 1:

Solid wastes : Sources, Types, composition and properties of solid waste , Collection and on-site handling , Separation and processing

UNIT – 2:

Solid waste disposal methods, Land filling, methods of land filling, Design of Landfills, gas production, Leachate and its control

UNIT – 3:

Incineration, Pyrolysis, Composting methods, merits and demerits, Energy recovery, Biomethanation, use of refuse derived fuels (RDF)

UNIT – 4:

Hazardous Waste, Definition, Sources, Classification, Hazardous wastes rules, and Nuclear waste, Biomedical wastes, Chemical wastes, disposal methods, Waste minimization.

UNIT – 5:

Treatment methods, Physico-chemical processes, Biological methods, Stabilization and Solidification, Thermal methods, Disposal methods Land disposal. Remedial technologies.

TEXT BOOKS:

3. Solid waste Engineering by P.Aarne Vesilind , William Worrell & Debra Reinhart, Cengage Learning India Pvt. Ltd, New Delhi
4. Environmental pollution control Engineering by C. S. Rao; New age International Publishers, New Delhi.

REFERENCE BOOKS:

1. Venkatappa Rao. G and Sasidhar. R.S.(2009), Solid waste management and Engineered Landfills, Sai Master Geoenvironmental Services Pvt.Ltd, Hyderabad
2. World Health Organization, *Global Water Supply and Sanitation Assessment 2000* (Geneva2000).
3. Environment and Pollution Laws: Universal, Universal Law Publishing Co. Pvt.Ltd, Ed 2011.