

J.T.S.S.P.M.

Shri Shiv Chhatrapati College, Junnar.

Department of Chemistry

Add on Certificate course in Biomedical Waste Management

(2- Credit, 30 Lecture)

Syllabus

• **Module 1 – Introduction to Biomedical Wastes** (8 L)

Introduction, pollution caused and occupational health issues of biomedical waste. Terminology biomedical waste, blood borne pathogens chemical waste, clinical waste cytotoxic waste, decontamination, disinfectant, disposal, free flowing or expressible blood.

Generators, infectious waste, source of biomedical waste, classification of hospital waste, law regarding biomedical waste, Air pollution, water pollution, land Pollution.

Health hazard, routes of transmission of diseases by biomedical waste, Hazardous Hospital waste occupational health hazards, hazards to the general public occupational health & safety.

• **Module 2 –Disposal Methods for Biomedical Wastes** (10 L)

Strategy for biomedical waste management & technologies available for treatment. Factors influencing BMW production in hospital organizational issues, units/depts. Where waste is generated, basic elements in waste management, features of good BMW disposal system waste collection & segregation waste containers, contents of waste bag advantages of using plastic bags labels for BMW, containers/bags, protocol to be followed for collection of BMW storage & transformation.

Classification of BMW management technologies, soft techniques, hard technologies other technologies (safe pit or sharp & landfills) sewerage, common treatment & disposal facility.

• **Practical based on Module 1 and 2:** (10 L)

1. Water Analysis (p^H, D.O., salinity)
2. The amount of acetone in solution by volumetric method.
3. Training of waste collection & segregation of waste containers.
4. Sterilization of Equipment's.
5. Visit to Hospital/ Waste treatment plant.

• **Tutorial:** (2 L)

References:

1. Hospital Waste Management, Principal and Guidelines, Mohd. Faisal Khan.
2. R.C.Goyal, Hospital Administration and Human Resource Management, PHI – Fourth Edition, 2006
3. V.J. Landrum, Medical Waste Management and disposal, Elsevier, 1991
4. Hospital Waste Management and Its Monitoring Sanskriti Sharma, Jaypee Brothers Publishers, 2002 B.