

Modern Landfill Design – Short Course Program

Day 1	Monday April 22, 2024
08:00 – 08:30	Welcome and Course Introduction
08:30 – 10:00	Municipal solid waste Municipal solid waste composition and management, engineering properties of waste
10:00 – 10:30	Break and Discussion
10:30 – 12:00	Landfill site investigation Landfill site investigation, site selection, and subsurface investigation, principles of siting the landfill, blowout, and excavation.
12:00 – 13:00	Lunch
13:00 – 14:30	Landfill leachate Landfill leachate generation, volume and composition of leachate, HELP program, cover design, long-term performance of cover.
14:30 – 15:00	Break and Discussion
15:00 – 16:30	Landfill liners Landfill barrier systems: compacted clay liners (CCL), geosynthetic clay liners (GCL), geomembranes, leachate compatibility.
Day 2	Tuesday April 23, 2024
08:30 – 10:00	Contaminant transport Contaminant transport modelling, POLLUTE program, integration of hydrogeology with design.
10:00 – 10:30	Break and Discussion
10:30 – 12:00	Leachate collection system Design of Leachate Collection Systems (LCS), clogging.
12:00 – 13:00	Lunch
13:00 – 14:30	Gas collection system Bioreactor landfills, Landfill gas, gas collection system.
14:30 – 15:00	Break and Discussion
15:00 – 16:30	Monitoring and contingency plan Landfill stability analysis, Landfill control and maintenance, operation development and environmental monitoring, contingency measures.
16:30 – 17:00	Adjournment