

# HYDRAULICS OF UNIT PROCESSES

### **COURSE DESCRIPTION**

This course is designed to provide an understanding on the hydraulics of unit processes. Topics include diurnal flow variation, high and low flow; flow velocity; hydraulic retention time; hydraulic losses; principle of settlement.

#### **COURSE OBJECTIVES**

Water spray p and nozzles

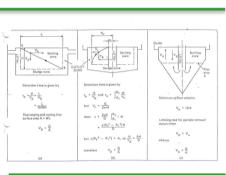
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At the end of the course, participants will understand and be familiar with:

- □ Simple concept of pipe, open channel and minor losses
- Sedimentation, clarification and thickening
- Primary and secondary sludge
- □ Screen hydraulic and gridlines
- Grit chamber hydraulic and Gridlines
- Hopper clarifier tank and Guidelines
- Circular clarifier and Guidelines
- □ STP hydraulics

### **COURSE CONTENT**

- Diurnal flow variation, high and low flow
- Flow velocity, surface loading, hydraulic retention time
- Hydraulic losses
- Principle of settlement
- Screen
- Grit chamber
- Hopper clarifier
- Circular clarifier



DURATION

#### 1 Day

#### WHO SHOULD ATTEND

Engineer and Technical personnel involved in STP design and plant certification

**COURSE FEE** 

#### RM550 .00 per person

## **COURSE SCHEDULE**

	Diurnal flow variation, high and low flow
9.00 am – 10.30am	Flow velocity, surface loading, hydraulic retention time
10.30am – 10.45am	Coffee/Tea Break
	Hydraulic losses
10.45am – 12.45pm	Principle of settlement
12.45pm – 2.00pm	Lunch Break
	Grit chamber
2.00pm – 3.30pm	Hopper clarifier
3.30pm - 3.45pm	Coffee/Tea Break
3.45pm – 4.45 pm	Circular clarifier
4.45pm – 5.30pm	□ Group Discussion

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