On-Line Workshop
Live Stream Sessions

Objectives & outcomes of the course: Drinking Water

Identifying ways of assessing water for its “fit for use”
Understanding and applying the new SANS 241: 2015
Appreciating the importance of continuous monitoring and assessment of drinking water quality
Gaining insight into the current blue-drop requirements
Determining water pollution control measures
Learning solutions and challenges faced while maintaining and improving a robust ,high quality drinking water system
Explaining what is currently being done wrong and what can be done right in protecting water quality.

Objectives & outcomes of the course: Domestic Wastewater

Understanding the need for water quality and treatment
A knowledge of the various water sources available for purifying to drinking water quality
An understanding of the water quality parameters of these water sources preventing the safe drinking of water
A knowledge & understanding of the various processes required to treat these sources to a potable water quality
Understanding the need for municipal wastewater management & treatment
Understanding the municipal by-law limitations for wastewater disposal to sewer

Objectives & outcomes of the course: Industrial Wastewater

The need for industrial water management & treatment
The Municipal levy system
The various types of industrial water and effluents
A knowledge & understanding of the various processes required to treat these sources to the required quality level
The ability to apply the most suitable process &design concepts of the processes

WORKSHOP TIMES: Per day over 2 days

08h30 – 10h30 start training- First training session
10h30 – 11h00 Mid-morning break
11h00 13h00 second training session
13h00 14h00 Lunch break
14h00- 15h30 third training session
15h30 Close of workshop

Global Prospectus Training Centre

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B-BBEE LEVEL 1 – 100% black Owned

Drinking Water Treatment

Introduction to drinking water quality
Definition of terms
Fitness for use
Characterisation of domestic water use
Constituents and their effects

Blue-Drop requirements
Water Safety Planning (WSP)
Process management and control
Drinking Water Quality Verification and SANS 241: 2015
Management, accountability and local regulation
Asset management

Water treatment processes
Coagulation/flocculation
Sedimentation and flotation
Sand filtration
Disinfection
Chemical stabilisation
Fluoridation
Residuals handling and treatment
Advanced processes

Requirements and Compliance
Drinking water quality compliance
Minimum requirements for drinking water quality
Compliance calculations
Compliance and risk management
Calculations and their applications

Treatment of Various Sources of Water to Drinking Water

Inland surface waters
Groundwater
Sewage Water (reclamation)
Seawater (desalination)

Domestic Wastewater

The need for wastewater management & treatment re.human health & the environment

Municipal by-law requirements, limitations & levies for discharge of effluents to sewer

Application of Govt. legislation: General & Special Standards for discharge to the environment

The typical undesirable pollutants to remove
Collection & conveying of sewerage and the diurnal & weekly cycles
Storm water management
Characterization of sewage effluent
The microbiology of sewage treatment

The treatment of sewage effluents & processes normally employed (= standard sewage treatment, without nutrient removal):

Course screening
Grit removal
Flow equalization
Fat & grease removal
Primary settling
Activated sludge system (without nutrient removal)
Secondary settling
Anaerobic sludge digestion
Final effluent disinfection
Sludge handling, disposal & utilization

Nutrient removal sewage treatment processes:
Biological nitrogen removal
Biological excess phosphorus removal
Design considerations for biological nitrogen and phosphorus removal plants

Treatment processes covered additionally:
Chemical treatment for phosphorus removal
Activated sludge systems using Membrane Bioreactors
Pond systems
Rotating biological contactor
Sequencing batch reactors
Trickling filters
Bio filtration (bio towers)
Reed beds
Other & new processes (example - Moving bed bio film reactor…)
Tertiary treatment of effluents for municipal & industrial reuse of water
Tertiary treatment of sewage effluents for potable water supply (= “water reclamation”)
The future of sewage effluent treatment & the reclamation of valuable by-products

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Marketing: dev@gptc.co.za

Industrial Wastewater

The need for industrial water management & treatment
The Municipal levy system
The various types of industrial water and effluents
A knowledge & understanding of the various processes required to treat these sources to the required quality level
The ability to apply the most suitable process & sizing of the selected process
Processes covered for the removal of solids and suspended solids (and including fats, oil & grease)

Course screening
Flow equalization
pH adjustment
Coagulation & flocculation (including for fats, oil & greases)
Settling/DAF
Sand filtration
Membranes for particulates removal

Removal of dissolved material
Removal of hardness (Nano filtration, Reverse osmosis, Ion exchange)
Removal of dissolved metals, salts and low concentrations of unwanted organic pollutants (pH elevation and precipitation, Activated carbon, Ion exchange (IX), reverse osmosis (RO)

Removal of high COD(high biological content):
Anaerobic ponds
Aerobic ponds
Physico-chemical processes (coagulation, flocculation and settling/DAF)
Anaerobic systems (standard, UASB)
Bio filtration (bio towers)
Activated sludge systems
Membrane bioreactors

Solids thickening, dewatering & drying
Screens
Gravity & DAF thickening
Centrifugation
Filter presses
Drying beds

Sampling
Objectives and Concepts
Preparing for the Sampling Program
Sample Collection

WATER MANAGEMENT MASTERCLASS

DRINKING , DOMESTIC & INDUSTRIAL WASTEWATER

ONLY
R 7990-00
Per Delegate
Ex. Vat

15 - 16 July 2025

BOOKING FORM , *On-Line Training*

GPW

Email Completed Registration Form To: dev@gptc.co.za

Company Name: _____

Type of Business: _____

Address: _____

Tel: _____ Fax: _____ VAT Number: _____

Delegate 1: _____

Position: _____ E-Mail: _____

Delegate 2: _____

Position: _____ E-Mail: _____

Delegate 3: _____

Position: _____ E-Mail: _____

Delegate 4: _____

Position: _____ E-Mail: _____

Delegate 5: _____

Position: _____ E-Mail: _____

AUTHORI SATION: *Signatory must be authorised to sign on behalf of Company*

Name: _____

Position: _____

Signature: _____ Date: _____

PAYMENT METHODS

1. Bank Transfer- Global Prospectus Training Centre (PTY) Ltd.
   First National Bank: Randburg
   Account Number: 62299608590
   Branch Code: 254005
2. Cheques- Made Payable to: Global Prospectus Training Centre (Pty) Ltd.
3. Swift code- FIRNZAJJ

TERMS & CONDITIONS

Payment is required in full 7 days from date of invoice.

The following terms and conditions will apply:

All payments to be made directly to Global Prospectus Training Centre (PTY) Ltd.
No seats will be reserved, unless Global Prospectus Training Centre (PTY) Ltd. receives a signed registration form.
Global Prospectus Training Centre (PTY) Ltd. reserves the right, due to circumstances beyond our control, to change speakers, program content, date & venue.
The signed registration form is a legally binding contract.

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The will be no refunds or credit vouchers

SUBSTITUTIONS

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