



Prof Paul Fouché and Dr Wynand Vlok

In Association with

Esprit Skills Development and Training

Presents a **4 day Short Course on Water Care**

Water Quality Management and Monitoring Course

This course is also ideal for Permanent Secretaries, Director Generals, Environmental Experts, Water Boards members who leads at the forefront towards a going green economy, who needs to understand the optimal use of equipment availability /needs in practice helping economies on Mining/ Urban/Rural Safety, Flood Management, Drought Management, learn processes to combat effects of combining waters from boreholes with rivers and sea

Course Summary

Water Care - WATER IS THE DRIVING FORCE IN NATURE

Water quality is a term used to describe the chemical, physical and biological characteristics of water, usually in respect to its suitability for an intended purpose. These characteristics are controlled and influenced by substances, which are either dissolved or suspended into water. Water quality is changed and affected by both natural processes and human activities. Generally natural waters quality varies from place to place, depending on seasonal changes, climatic changes and with the types of soils, rocks and surfaces through which it moves.

A variety of human activities e.g. agricultural activities, urban and industrial development, mining and recreation, potentially significantly alter the quality of natural waters and changes the water use potential. The key to sustainable water resources is therefore to ensure that the quality of water resources are suitable for their intended uses, while at the same time allowing them to be used and developed to a certain extent. Effective management is the tool through which this is achieved. Water quality management, therefore involves the maintenance of the fitness for

use of water resources on a sustained basis, by achieving a balance between socio-economic development and environmental protection.

From a regulatory point of view the "business" of water quality management entails the ongoing process of planning, development, implementation and administration of water quality management policy, the authorization of water uses that may have, or may potentially have, an impact on water quality, as well as the monitoring and auditing of the quality of water

This 4-day course is designed to provide the background for persons working at all levels in the water treatment industry. It introduces aspects to familiarise the course attendant with the world in which he or she operates. The course addresses a number of skills and will include discussion groups and a practical excursion. The level of the course is of such nature that no previous knowledge is required.

**Organised by: Esprit Skills Development & Training www.espritskills.co.za
National Treasury MAA0113018: SA Revenue TCC 0700/01/2019/A003159964
Enrol now on Tel: (+2711) 391-2022/972 5568 or Fax: (+2711) 391-8604
Kobie.esprit@telkomsa.net or admin.esprit@telkomsa.net**



In this very interactive workshop, you will learn valuable tips on the essential tasks on water treatment.

Are You the Solution to Water Pollution?

LEARNING OUTCOMES

After completing the workshop successfully, participants will be equipped to:

- Understand the effects and consequences of polluted water.
- Recognise the early warning signs of polluted areas.
- React appropriately to suspected pollution.
- Limit your exposure.
- Be proactive in preventing water pollution in the legal framework

WHO SHOULD ATTEND?

Delegates should represent a wide range of personnel in the organisation who are in the following capacities:

- Water Plant Superintendents/Managers
- Water Plant Purification Staff
- Artisans
- Water Foremen
- Ground Water Management Staff
- Waste Water Treatment Staff
- Risk Managers, Finance Managers, Project Managers, HR Managers, Training Managers
- Safety Managers
- Plumbing Staff
- Monitoring/Evaluation staff in water management

Park Inn by Radisson, Cape Town, South Africa , 29 Heerengracht Street, Foreshore, Cape Town (2 minutes walk from V & A Waterfront)

4th November to 7th November 2019

R9 500/USD \$900 (Excl VAT)/ Delegate

Enrol now

Tel: (+2711) 391 2022/972 5568

Fax: (+2711) 391 8604

Email: kobie.esprit@telkomsa.net

Key Benefits of Attending

You will learn how to:

- *Identify pollution **in the early stages***
- *React appropriately to **water pollution***
- *Understand **Aquatic ecosystems***
- *What the complexity of **aquatic ecosystems** and the **IWRM** involves.*

OUR UNIQUE RESULTS-DRIVEN APPROACH

Our unique approach to providing our clients with business development services include:

- Ensure to make a difference to the bottom-line of businesses and organizations

**Organised by: Esprit Skills Development & Training www.espritskills.co.za
National Treasury MAA0113018: SA Revenue TCC 0700/01/2019/A003159964
Enrol now on Tel: (+2711) 391-2022/972 5568 or Fax: (+2711) 391-8604
Kobie.esprit@telkomsa.net or admin.esprit@telkomsa.net**

- Strive to meet transformation requirements by empowering and uplifting the previously disadvantaged
- Secure long-term business relationships
- Implement customized aligned business strategies
- Honour the dignity and worth of all people at all times
- Strive to deliver with excellence

Day 1: 4th November 2019
Monday 08:00 for 08:30 until 16:15

Module 1: An introduction to chemical concepts

- Atomic structure, molecules and compounds. Chemical bonding, mole concept and chemical calculations. Concentrations and solutions, acids, bases, salts, oxidation and reduction.
- The balancing of equations. Basic chemical kinetics and chemical equilibrium. Basic organic chemistry.

Module 2: An introduction to water

- Physical and chemical properties of water. The concepts of pH, EC, DO and TDS.
- The hydrological and nutrient cycles.

Module 3: Catchment and Integrated Water Resource Management (IWRM)

- What is a catchment or river basin? Impacts associated with the catchment. Structures and strategies to manage the catchment.
- Introduction to IWRM. Concepts and functions of the process. Implementation of the IWRM programme.

Module 3: Discussion-Catchment and IWRM

Day 2: 6th November 2019
Tuesday 08:15 until 16:15

Module 4: Environmental Impact Assessments (EIA) and Environmental Management Plans (EMP)

- Introduction to EIA's. Components of EIA and the EIA process.
- Introduction into EMP's. The process and components of an EMP.

Module 4: Discussion- Management strategies

Module 5: Resource monitoring of and monitoring techniques

- Comparing monitoring and biomonitoring. The structure of a biomonitoring programme.
- Brief introduction to monitoring protocols and indices. Practical pointers for biomonitoring.

Module 6: Sources of Pollution and Control measures

- Types of pollution. Sources of water pollution including "point source" and "non-point source" pollution.

Module 6: Discussion - Water pollution

Day 3: 5th November 2019
Wednesday 08:00 for 08:30 until 16:15

Module 7: Pathogens and their role in water.

- Introduction to pathogens and waterborne diseases and how humans are affected.

Module 8: Introduction to water purification

- Introduction to the purification process and the components associated with a water treatment process/plant.

Module 9: The water purification process

- Detailed discussion of the treatment process, structures and equipment.
- The concept of water sterilization. Explanation of the processes and equipment used.

Module 9: Discussion – pathogens and purification

Module 10: Practical session (equipment and sampling)

Day 4: 7th November 2019
Thursday 08:00 for 08:30 until 16:15

Field Work: Potable water purification, equipment and sampling

Final session Discussion & Certification

"Clean water is a human right"

"Water is not just a human health issue, not just an economic development or environmental issue, but a peace and security issue."

Organised by: Esprit Skills Development & Training www.espritskills.co.za
National Treasury MAA0113018: SA Revenue TCC 0700/01/2019/A003159964
Enrol now on Tel: (+2711) 391-2022/972 5568 or Fax: (+2711) 391-8604
Kobie.esprit@telkomsa.net or admin.esprit@telkomsa.net



Two thumbs up for your training requirements

All about the Course Presenters

Paul Fouché has been in the education for the past 34 years. He has an MSc (cum laude) and a PhD in Zoology. As part of his experience he has developed a number of university level modules in Limnology and Water Resource Management at undergraduate level and has been part of the team that developed a Course Masters in Aquatic Health and a diploma in Freshwater in Technology. He has been involved in freshwater resource research since 1990 and has worked in many areas throughout South Africa. He has produced 24 scientific publications and 33 scientific reports. In addition he has presented 26 papers at national and international conferences.

Wynand Vlok, the second member, was involved in tertiary education for more than 15 years and has more than 30 years' experience in water related matters. He has a PhD in Zoology and is a wetland and water quality expert that has worked extensively in wetlands in South Africa. In addition to his extensive publication record he has managed the team that developed the Course Masters in Aquatic Health and is part of a team that is contracted to develop a Course Masters in Resource Directed Measures.

ESPRIT HAS SERVED THE FOLLOWING COUNTRIES ON THIS TOPIC:

South Africa, Botswana, Namibia, Seychelles, Tanzania, Uganda & Zambia
Our happy clients include: Breede Overberg CMA, BCL Mining, Islands Development Corporation, Ministry of Water Affairs, Lusaka Water & Sewerage Corporation, Ekurhuleni Metropolitan, the Botswana Defence Force Engineering Corps Ministry of Water Affairs Uganda, Pangani Basin Tanzania and many more.

Comments from previous Delegates:

A lot of knowledge in the shortest time and well delivered- C Tusiime MWE Uganda
He was very good presenter & teacher- M D Daphine, MWE, Uganda
He is highly knowledgeable, intelligent and well exposed to every aspect of the subject – F Atuingusa

Presenter has in-depth knowledge of the subject matter coupled with practical hand on experience - C Balidawe - Ministry of Water Environment Uganda

The material was good, I wish other people from my Company especially the Environmental Department should also expend this to water department in my Country- Mr Babolok BCL Mining
Very impressive documentation and stationery. Presenters very clear on topics - Cynthia Ortmann
Ministry of Water

It was an eye opener for the Water Sector employees - Anna Haufiku, Giz - Nwrm
A lot of fruitful information in a short period of time - B B Harasels, Omaruru Basin Management Committee

Highly skilled & experience team. I enjoy and really learned a lot. Good presentation with a great time length - Paaherani Ngunovandu, Ministry of Agriculture, Water & Forestry
Knowledge enhancing & educative- Lt K G Bathedi Botswana Defence Force, Corps of Engineers

The course is of much significance because it equips people with the skills of how to make water safe - N Nfazo , Botswana Defence Force Corps of Engineers

Enlightment about water quality management because it's a basic need - L Mosepedi BDF - Corps of Engineers

Keeping Water Clean. It's Everybody's Business

**Organised by: Esprit Skills Development & Training www.espritskills.co.za
National Treasury MAA0113018: SA Revenue TCC 0700/01/2019/A003159964
Enrol now on Tel: (+2711) 391-2022/972 5568 or Fax: (+2711) 391-8604
Kobie.esprit@telkomsa.net or admin.esprit@telkomsa.net**



Registration Form

Yes! Please accept my registration for (please tick)

- Water Management & Monitoring –November 2019
Cape Town, South Africa**

Mr/Mrs/Ms: _____

Position: _____

Organisation: _____

Main line of Business: _____

No of Employees: <50 50-150 150-500 >500

Address: _____

Postcode: _____

Phone: _____ Fax: _____

Email: _____

Approving Manager: _____

Position: _____

METHOD OF PAYMENT:

- Cheque made payable to: Esprit Skills Development & Training

- Direct Deposit: Esprit Skills Development & Training

Standard Bank SA, Branch Code: 012442, Account: 020213255

Swift Code SBZAJJ

Payment must be received at least 7 days before start of event, to ensure your place is held. Seats will not be held open after this date.

*** IT IS IMPORTANT TO RESERVE YOUR PLACE EARLY AS SEATING IS RESTRICTED TO ENSURE ALL PARTICIPANTS RECEIVE EFFECTIVE TRAINING**

All cancellations must reach us 7 days before the event, failing which, a 50% cancellation fee will be levied

Water Quality Management (March 2019- Cape Town South Africa)

This fee includes all training material, CD, framed certificates, lunch and refreshments during the duration of the course.

POSTAL ADDRESS:

Esprit Skills Development & Training
P.O.Box 6835
Birchleigh, South Africa
1621

CONTACT:

Adele
Tel: (+2711) 972 5568/ 391 2022
Fax: (+2711) 391 8604
Email: kobie.esprit@telkomsa.net

About Esprit Skills Development & Training

Esprit Skills Development and Training provides a service to its clients by understanding their requirements and assist them to train their employees.

We source the knowledge of experts in the field, locally and abroad, customize their product range to be aligned according to the standards set by the SETA's and SAQA. Esprit Skills is accredited with Services Seta. Ref 3924

The Progressive Business Forum also welcomed Esprit as member on 13 June 2008 for the role we play in shaping the economic future of the Rainbow Nation. (Membership Number JHBS6441)

The criteria of the venues are chosen so that it can be reached by public transport, the facilities are inspected prior to the workshops or conferences to ensure that the delegates receive optimum support to focus on the purpose of their visit namely training. Food, soft drinks and savories are offered to delegates.

The delegates are grouped according to their respective needs and profiles of delegates are given to the trainers prior to the session to ensure that their exact purpose or training needs is addressed.

Every delegate that follows our outcomes based training walks away with hands on knowledge that can be applied to the workplace in their respective industry.

Course materials supplement the training and framed certificates of attendance are given to delegates.

Cost per Delegate (excl VAT)	
SA Rand	USD \$
9 500	900

Save water, it will save you later

Organised by: Esprit Skills Development & Training www.espritskills.co.za
National Treasury MAA0113018: SA Revenue TCC 0700/01/2019/A003159964
Enrol now on Tel: (+2711) 391-2022/972 5568 or Fax: (+2711) 391-8604
Kobie.esprit@telkomsa.net or admin.esprit@telkomsa.net