

SHORT COURSES IN WATER AND WASTEWATER TREATMENT USING THE FESTO SIMULATOR



“Building Capacity, Supporting Implementation”

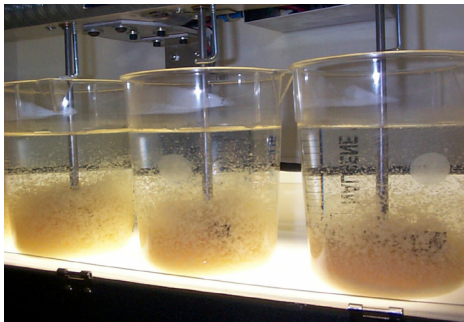
The Water Academy Programme Number M312

Experimental Learning using the Practice-orientated Education and Training in Sanitary Engineering (ProESE) Simulator

The Practice-orientated Education and Training in Sanitary Engineering (ProESE) Simulator was developed under a GIZ German Government Sponsor Project through a joint partnership between University of Stuttgart, University of Pretoria, The Water Academy and FESTO Didactic.

The Simulator is designed to provide learners with direct ‘desktop’ hands-on experience with the operation of water and wastewater treatment processes and reticulation systems. This learning experience can then be transferred directly to the learners’ full scale process.

The Practice-orientated Education and Training in Sanitary Engineering (ProESE) Simulator is in module form, each of which represents a stage in a water or wastewater treatment plant. Flows and dosing can be controlled and system response instantaneously assessed by means of the Practice-orientated Education and Training in Sanitary Engineering (ProESE) computer interface.



Outline of Course: The Operation of Water Treatment Processes

This course is presented over two days and includes the following topics:

- Relevant Legislation
- Water Chemistry: Including Coagulation, Flocculation, Stabilisation, Disinfection
- Water Treatment Process Overview
- Unit Operations criteria: Coagulation, Flocculation, Stabilisation, Filtration, Disinfection
- Process Operations Control: Within a process and within treatment process framework
- Process Trouble Shooting



Who should Attend

This course is aimed at experienced process controllers and process supervisors. The course will also provide technologists and engineers new to water services with a powerful and practical introduction to water treatment and water treatment processes and imperatives.

Course Accreditation and Level

The course spans NQF Levels 2 to 5. It is a 3 CPD Credit course, based on the following Unit Standards:

- US 246440: Operate Coagulation, Flocculation and Settling Processes: 10 Credits, NQF 2 (M132)
- US254103 + US254097: Chlorine Dosing: 10 Credits, NQF 3 (M290)

Assessment method:

- Written and Practical Assessment
- Competent learners receive 3 CPD Credits Certificate

Entry Requirements

- Matric with Maths and Plant experience
- Tertiary technical qualifications with no experience



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