

Mr Peter Griffiths

pH Water Consultants Pty Ltd

Dr Helen Stratton

pH Water Consultants Pty Ltd

This course meets the requirements for the following Units of Competency.

NWPTRT412A

Investigate and plan the optimisation of activated sludge processes

NWPTRT084 Assess and improve activated sludge and nutrient removal processes

NWPTRT081 Monitor, operate and control activated sludge processes

Please contact course presenters if recognition for Cert III or IV Water Operations is required.

DATE

June 24th to 28th 2019

VENUE

Mantra, 7 Venning St, Mooloolaba
And University of the Sunshine Coast

FEES

Early bird rate – book and pay by 2nd June 2019
\$2,700 (plus GST \$270)

Standard rate – after 2nd June 2019
\$3,000 (plus GST \$300)

This includes 5-day attendance, lunch, morning and afternoon teas, comprehensive course notes, the course dinner on one evening and transport to site visits. A 10% discount is offered to 3 or more registrants from the same organization (early and standard rates).

ACCOMMODATION

Please make own arrangements **mentioning this course when booking**. Not included in fees.
Mantra Mooloolaba QLD (Sunshine Coast).

CANCELLATIONS

Notification in writing a minimum of two weeks before the course date is required for a 90% refund. No refunds will be available after this date. If the nominated delegate is unable to attend, the registration is transferrable to other staff from the same organization.

MINIMUM NUMBERS

We endeavour to maintain the cost of the course to a minimum. As a consequence, we reserve the right to postpone this course with full refund should delegate numbers be insufficient.

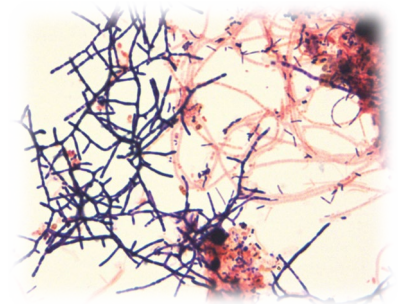
ENQUIRIES

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**MONITOR AND OPTIMISE
ACTIVATED SLUDGE
AND BIOLOGICAL NUTRIENT
REDUCTION PROCESSES**
Register at phwater.com.au

June 24th to 28th 2019
Mantra Mooloolaba
Sunshine Coast Queensland



Monitor and Optimise Activated Sludge and BNR Course

Background

Effluent quality requirements for wastewater treatment are becoming increasingly more stringent. Australia has some of the most challenging conditions for treating wastewater in terms of nutrient reduction. The level of training and understanding for the effective operation of these systems is critical to enable optimal treatment and effluent quality to meet regulatory needs and better. This specialist course has been designed for managers, operators and designers of Activated Sludge (AS) and Biological Nutrient Reduction (BNR) processes.

Purpose of the Course

This course is aimed at people responsible for AS/BNR systems operation, assessment, control and optimisation. Completion of the course will provide participants with a working knowledge of the process and how to best optimise their system. The course is unique in that it provides fundamental knowledge of the interaction between biochemical, microbiological and engineering design aspects of the process.

Who should attend

This course is relevant to you if you are:

- Involved with the management or operation of an activated sludge or BNR plant
- Upgrading your AS plant to BNR
- A scientist working in a laboratory analysing wastewater or researching the AS/BNR process
- Studying environmental engineering or wastewater subjects
- Completing your Certificate II or IV in water operations

Programme Outline

Monday – 8:30 coffee for 9:00am start

- Session 1 The fundamentals
- Session 2 The components of Wastewater
- Session 3 Principles of Activated Sludge
- Session 4 The organisms of activated sludge
- Session 5 Nitrification/Denitrification
- Session 6 The microbiology of Nitrif/Denit

Tuesday

- Session 1 Biological Phosphorous Reduction
- Session 2 The Microbiology of P Reduction
- Session 3 The components of the BNR process
- Session 4 In plant monitoring
- Session 5 Interpretation of analytical data
- Session 6 Operation of the AS/BNR process
- Session 7 Operation and Maintenance of BNR
- Session 8 Clarifier and RAS pumping

Course Dinner

Wednesday

- Session 1 Site visit to a BNR plant
- Session 2 Workshop and Case Histories

Thursday

- Session 1 Laboratory session all day
At the University of the Sunshine Coast, Sippy Downs)
- Session 2 how to examine activated sludge and BNR samples

Friday

- Session 1 Interpretation of laboratory results
- Session 2 Sludge handling/Revision
- Session 3 One-hour exam and closing

Close 2pm

Monitor and Optimise ASBNR Registration of Interest Form

Register interest plus reserve a place for the course- total numbers for course are limited and there is already a list of potential delegates that missed out on last year's course.

Name: _____

Title: (please circle) Prof, Dr, Mrs, Ms, Mr

Preferred name for badge: _____

Position: _____

Organisation: _____

Postal Address: _____

_____ Post Code _____

Phone: _____

Email: _____

Where did you hear about this course? _____

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\$2,700 per delegate (plus GST \$270)

☐ Standard rate book and pay after 2 June 2019
\$3,000 per delegate (per delegate (plus GST \$300)

A 10% discount is offered to three or more registrants from the same organisation (off both early and standard rates).

Register for attendance and make payment at www.phwater.com.au or, for invoicing, email peter@phwater.com.au.