

Mr Peter Griffiths

pH Water Consultants Pty Ltd

Associate Professor 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 22nd to 26th 2020

VENUE: Landmark Resort, 11 Mooloolaba Esplanade, Mooloolaba 45577.
And University of the Sunshine Coast

FEES

Early bird rate – book and pay by 1st June 2020
\$2,800 (plus GST \$280)

Standard rate – after 2nd June 2019
\$3,100 (plus GST \$310)

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: Not included in fees. Please make own arrangements. If booking at the Landmark Resort Mooloolaba QLD please mention this course.

Note: Several sporting events are happening in the area, Early booking of accommodation is recommended.

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.

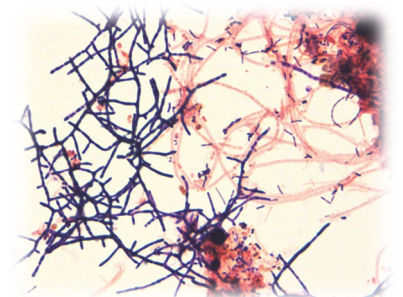
MINIMUM NUMBERS

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: Peter Griffiths 0408 204112
Peter@phwater.com.au

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

June 22nd to 26th 2020
Landmark Mooloolaba
Sunshine Coast Queensland



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 in a clear, easily understood and concise manner.

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
- Involved in the design, commissioning, optimisation or trouble shooting of an activated sludge or BNR plant
- 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

Course Outline

Monday – 8:30 coffee for 9:00am start

- Session 1a Fundamentals of Wastewater Treatment
- Session 1b The Components of Wastewater
- Session 2 Introduction to Microbiology
- Session 3 Principles of Activated Sludge
- Session 4 The Microbiology of activated sludge
- Session 5 Nitrification/Denitrification
- Session 6 The microbiology of Nitrogen Reduction

Tuesday

- Session 1 The Microbiology of P Reduction
- Session 2 Biological Phosphorous Reduction
- Session 3 Aeration Control
- Session 4 The components of the BNR process
- Session 5 Interpretation of analytical data
- Session 6 Microbiology of Bulking and Foaming
- Session 7 Operation and Maintenance of BNR
- Session 8 Control of Problem Organisms

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 Solids Handling
- Session 2 Monitoring and Interpretation
- Session 3 Revision
- Session 4 One-hour questionnaire and closing

Close 2pm

Register interest plus reserve a place for the course- total numbers for course are limited and there is already a list of potential delegates

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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☐ Standard rate book and pay after 1st June 2020
\$3,100 per delegate (plus GST \$310)

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.