

COURSE PRESENTERS

Mr Peter Griffiths
CH2M Hill, Australia

Prof Bob Seviour
Biotechnology Research Centre
LaTrobe University, Bendigo

Dr Helen Stratton
School of Environmental Engineering
Griffith University and
Smart Water Research Centre

Ms Beth Seviour
Bugworks



ACTIVATED SLUDGE AND BNR COURSE

DATE

4th - 8th June 2012

VENUE

Comfort Inn & Suites Robertson Gardens (Brisbane QLD)
and Griffith University, Nathan Campus

FEES

Early bird rate - book and pay by 2 April 2012
\$2,100 (plus GST \$210)

Standard rate - after 2 April 2012
\$2,350 (plus GST \$235)

This includes full week attendance, lunch, morning and afternoon teas, comprehensive course notes, two colour wall posters, course dinner and transport to site visits.

A 5% discount is offered to three or more registrants from the same organisation (off both early bird and standard rates).

ACCOMMODATION

Please make own arrangements. Discounted rates available at:
Comfort Inn & Suites Roberston Gardens, Nathan QLD
P 1800 777 374 (from \$139/night)

CANCELLATIONS

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

MINIMUM NUMBERS

The cost of this course has been kept to a minimum. As a consequence, we reserve the right to postpone this course should delegate numbers be insufficient with full refund.

ENQUIRIES

Margaret Harlow, Commercial Services Coordinator
Smart Water Research Centre
Griffith University, Gold Coast Campus 4222
T 07 5552 7840 F 07 5552 7831
E m.harlow@griffith.edu.au
W www.smartwaterresearchcentre.com

or
Helen Stratton
T 07 3735 5503
E h.stratton@griffith.edu.au

Smart Water Research Centre
SHORT COURSE
June 4th - 8th 2012

Activated Sludge and Biological Nutrient Reduction



smartwater
Research Centre | science
securing
our
future

 **Griffith**
UNIVERSITY

BACKGROUND

Effluent quality requirements for sewage treatment are becoming increasingly more stringent. Many sewage treatment plants in Australia are being, or will be in the near future, upgraded to biological nutrient removal. The level of training and understanding for effective operation of these systems within the industry is currently limiting. A specialist training course has therefore been designed for managers, operators and designers of Biological Nutrient Reduction (BNR) systems.

PURPOSE OF THE COURSE

This is a University accredited course aimed at people working in the wastewater industry as operators, engineers, scientists or managers, who wish to have a working knowledge or troubleshooting and process optimisation of activated sludge and biological nutrient removal systems. The course is unique in that it provides fundamental knowledge of the interaction between biochemical, microbiological and engineering design and operational aspects of the process.

WHO SHOULD ATTEND

You will find this course relevant if you are:

- involved with the management or operation of an activated sludge (AS) BNR plant;
- upgrading your plant to BNR in the near future;
- a scientist working in an AS or BNR laboratory or research environment.; or
- studying environmental engineering or wastewater subjects.



MONDAY

- 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 Nit/Denit.

TUESDAY

- Session 1 Biological Phosphorous Removal
- Session 2 The Microbiology of P Removal
- Session 3 The Components of BNR Process
- Session 4 In Plant Monitoring
- Session 5 Interpretation of Analytical Data
- Session 6 Operation of the AS Process
- Session 7 Operation and Maintenance of BNR
- Session 8 Clarifier and RAS Pumping

Course Dinner

WEDNESDAY

- Session 1 Site visit to BNR Plant
- Session 2 Workshop Case Histories and Discussion

THURSDAY

Laboratory Sessions to be held at Griffith University
Microbiological Examination
Troubleshooting
Filamentous Bulking and Foaming

FRIDAY

- Session 1 Lab Results
- Session 2 Sludge Handling/Revision
- Session 3 One Hour Exam and Closing Workshop

Course finishes at 3.00pm on Friday

Name: _____

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

Preferred name for badge: _____

Position: _____

Organisation: _____

Postal address: _____

_____ Postcode: _____

Phone: _____ Fax: _____

Email: _____

Do you have Hepatitis B or A immunisation? Y N

FEES

- Early bird rate - book and pay by 2 April 2012 **\$2,100** per delegate (plus GST \$210).
- Standard rate - after 2 April 2012 **\$2,350** per delegate (plus GST \$235).

A 5% discount is offered to three or more registrants from the same organisation (off both early bird and standard rate). Includes all sessions, field trips, a comprehensive set of notes, morning teas, lunch and afternoon teas and course dinner.

Total payment enclosed: \$ _____

- Cheque - Please make payable to Griffith University
- Request invoice (includes EFT details - Purchase Order # _____)
- Credit Card - Bankcard Visa Mastercard Amex (please circle)

Credit card No. Expiry date: ____/____/____

____/____/____/____

Cardholder's name: _____

Cardholder's signature: _____

Please return this section with your payment by **MONDAY 21 MAY 2012** to:
 Margaret Harlow, Commercial Services Coordinator
 Smart Water Research Centre
 Griffith University, Gold Coast Campus QLD 4222
 T 07 5552 7840 | F 07 5552 7831 | E m.harlow@griffith.edu.au

NB: If you cannot attend but are interested in future courses, please tick the box and return this registration form. You will receive notice of future courses we will be conducting.