PROFESSIONAL CERTIFICATE OF COMPETENCY IN
SEWAGE AND EFFLUENT TREATMENT TECHNOLOGIES

12 MODULES OVER 3 MONTHS

For upcoming start dates, please view our program schedule at:
http://www.eit.edu.au/schedule

Keep you and your company one step ahead with this comprehensive overview of sewage and effluent treatment technologies

Live, interactive webinars - learn from industry experts with hands-on experience

Bring yourself up to speed in the latest trends and technologies

YOU WILL LEARN HOW TO:

• Maintain and troubleshoot waste water treatment systems
• Understand the different waste water treatment systems available
• Understand national and local legislation
• Apply knowledge of the latest technologies and best practice

Presented by
Tristan Holland
B.Eng (Chem), M EngSc (Advanced Process)

SECURE YOUR PLACE NOW!
Contact enquiries@eit.edu.au for an enrolment form or more information.
Tristan has been working within the Australian water industry for the past 13 years after graduating with his engineering degree. His engineering experiences have taken him from the humble port of Adelaide to all areas of Australia and around the world including Africa, PNG, India and Canada. Tristan started off in commissioning and operations of water and wastewater treatment facilities, and then moved to designing, construction and commissioning.

Over the years the technology that Tristan has been involved with has been as varied as his engineering experiences, including pipework design for water treatment, air pollution treatment systems, and wastewater treatment systems in remote challenging environments. Two years ago Tristan decided to expand his qualifications and started a Masters of Advanced Process Design, providing an advanced ability to adapt other engineering technologies to water and wastewater treatment systems.

By bringing together his technical knowledge, understanding of theoretical processes and practical based engineering background, you will leave this program with practical ideas and applications that can be implemented into existing systems.

Please note: Lecturers are subject to change.

12 MODULES OVER 3 MONTHS

OVERVIEW:

The quality of groundwater used cannot be compromised any longer and the servicing requirements of on-site sewage disposal systems cannot be ignored. With limited funds available to you, the private owner or regulatory agency who is responsible for inspection, the task of on-site sewage treatment and disposal is becoming very difficult.

With limited funds available to the owners we believe this program will help you to install an effective system. You will learn numerous tips and tricks throughout the program to make it very practical and relevant to your applications.
PROGRAM OUTLINE

MODULE 1: PLANNING CONSIDERATIONS – PROVINCIAL AND NATIONAL GOVERNMENT
- Economic, social and environmental goals of planning
- Environmental assessment
- Need for health and safety
- Factors in preparing municipal plans
- Protection for stepped up demand

MODULE 2: WASTE WATER FUNDAMENTALS
- Basic terminology
- Contaminant considerations
- Biological, phosphorous, ammonia
- Pathogens
- Effluent objectives
- Alternate discharge options
- Receiving water capacity-provincial water quality objectives
- Surface discharge
- Subsurface discharge

MODULE 3: DESIGN CONSIDERATIONS
- Collection of sewage
- Aerobic and anaerobic treatments
- Critical design parameters for communal sewage treatment systems

MODULE 4: TREATMENT TECHNOLOGIES
- Suspended solids removal
- BOD removal
- Nitrification and denitrification
- Phosphorous reduction

MODULE 5: TREATMENT SYSTEMS
- Conventional septic tank
  - As the treatment system
  - Enhanced septic tanks
  - As a primary for other bioreactors
- Bioreactors
  - Fixed film
  - Rotating
  - Suspended
  - Batch
  - Filters-sand, peat, stone, synthetics
- New technologies targeting specific contaminants

MODULE 6: RECIRCULATING SAND FILTERS

YEAR ROUND TREATMENT
- History experimental design
- Construction
- Operation

MODULE 7: SUBSURFACE DISCHARGE
- Filter bed
- Shallow trench
- Leaching bed
- “Constructed wetland”
- Recycle, reuse

MODULE 8: DIRECT DISCHARGE
- Stream assimilative capacity
- Mixing zone
- Disinfection

MODULE 9: BIOSOLIDS DISPOSAL
- Hauled waste
- Compost
- Lime stabilisation

MODULE 10: MANAGEMENT OF COMMUNAL WASTE WATER SYSTEMS
- Regular monitoring
- Long term satisfactory performance

MODULE 11: FINANCIAL AND LEGAL ISSUES
- Funding sources
- Approval process
- Regulatory compliance
- Municipal and owner liability

MODULE 12: DESIGN AND INSTALLATION OF YOUR OWN SYSTEM
- Simple design rules
- Implementation of your system
- Tips and tricks
- The thirteen golden rules of working with waste water systems

HARDWARE AND SOFTWARE REQUIREMENTS

All you need to participate is an adequate Internet connection, PC, speakers and a microphone. The software package and setup details will be sent to on the program start date.

ENTRANCE REQUIREMENTS

Some practical work experience in some of these topics would obviously be advantageous.

PRACTICAL EXERCISES

Throughout the program you will participate in hands-on exercises using simulation software, which will help you put theory to practice immediately!

CERTIFICATION

Participants completing and achieving at least 50% or more in each assignment, as well as attending 65% of the live webinars, will receive the Engineering Institute of Technology Professional Certificate of Competency in Sewage and Effluent Treatment Technologies.

ON-SITE TRAINING

We can provide our training at the venue of your choice. On-site training can be customised and by bringing the trainer to site the dates can be set to suit you!

“The Customer is Always Right” – so tell us what you need and we will design a training solution at your own site.

For a FREE detailed proposal please contact Kevin Baker via email: training@idc-online.com