



WATER EFFICIENCY MANAGER COURSE

Jointly brought to you by PUB and Singapore Polytechnic



The Water Efficiency Manager Course has been introduced by PUB, the national water agency and the Singapore Polytechnic to equip facilities managers with the knowledge and skills to conduct water audits and apply water efficiency measures to reduce water consumption in commercial/ residential buildings, and industries.

This course is aimed at building owners, facilities, estates and operations managers as well as engineers and architects.

Participants will need to pass an open-book test (MCQ format) and have at least 75% attendance in order to be certified as a Water Efficiency Manager. Participants will be awarded a joint PUB-SP Certificate of Proficiency upon completion of the course.

COURSE REQUIREMENTS

- Basic command of English
- Minimum GCE "O" levels
- 2 years of working experience in building/ facilities management

COURSE CONTENTS

Day 1

Introduction

- Regulatory water efficiency requirements
- Incentives/ Recognition schemes
- Guidelines for buildings

Water Efficiency Management Plan, Audit Methodology & Tools

- Audit Process
- Conducting an audit
- Water Efficiency Management Plan (practical)

Day 2

Cooling Towers

- Basic Design/ Regulatory requirements
- Water Management
- Best practice guidelines/ Case studies

Water Efficient Irrigation & Landscaping

- Methods
- Best practice guidelines/ Case studies

Swimming Pools

- Leakage
- Balancing tanks
- Best practice guidelines/ Case studies

Day 3

Industrial Water Solutions

- Conventional Process/ Membrane Treatment Process
- Overview of wastewater characteristics and common treatment/ reclaim technologies
- Water balance chart
- Optimal Water Management of planning and construction of plants
- Case studies

Site Visit

Test

PRESENTERS



Ms Wong Wai Cheng is Chief Engineer of PUB's Water Supply Network Department. She has worked in the areas of customer supply, water treatment and water demand management which includes water conservation, leakage and unaccounted for water control. Ms Wong currently oversees the planning, development, management and implementation of water demand strategies in Singapore. She works closely with the various industrial sectors and associations to implement water efficiency measures.



Ms Chan Choi Ung is currently a senior lecturer in Singapore Polytechnic. Her teaching focuses on environmental related modules. She has provided consultancy services on Environmental Management System.



Mr Idris Bin Bidin is currently a senior lecturer in Singapore Polytechnic. He develops the curriculum for the Diploma in Architecture and Diploma in Landscape Architecture courses, lecturing and coordinating programmes for both courses.



Dr Liu Qishan was Senior Environmental Engineer in CH2M HILL Singapore Pte Ltd before joining Singapore Polytechnic as a lecturer in 2006. He has conducted many industrial projects, consultations and R&D projects in water/wastewater, used water treatment, environmental impact and site assessment.



Ms Tracy Law, a former engineer in PUB, has previously worked in areas of planning, water treatment, water supply and demand management. Currently lecturing in Singapore Polytechnic, her teaching focuses on civil, environmental and water-related areas.



Mr Kiran Kekre is Senior Principal Engineer of PUB's Technology Department. He has over 16 years of experience in water treatment, ultrapure water, water reclamation and recycling in the electronics and semiconductor industry. Earlier, he was also involved in working closely with the local water industry, assisting them in the field of NEWater adoption, ultrapure water and water reuse projects.

COURSE INFORMATION

Duration: 3 days

Public Run Dates:

- 1) Wed 20/1/16, Wed 27/1/16, Thu 28/1/16
- 2) Wed 9/3/16, Wed 16/3/16, Thu 17/3/16
- 3) Wed 18/5/16, Wed 25/5/16, Thu 26/5/16
- 4) Wed 20/7/16, Wed 27/7/16, Thu 28/7/16
- 5) Wed 9/11/16, Wed 16/11/16, Thu 17/11/16

Registration will close 2 weeks before the commencement date. (Please note that once the maximum class size is reached, the online registration will be closed.)

This course is qualified for PDUs by PEB (PDU points to be confirmed).

Venue: Singapore Polytechnic, 500 Dover Road, Singapore 139651

Fees with GST: S\$481.50 per participant (10% Discount for SP Alumni - Applicable to Individual Only)

Funding Incentives:

Skills Development Fund (SDF) Training Grant

Support level - Broad-based Skills Training. Funding is only available for company-sponsored participants. In order to successfully make a claim under this grant, please note the following:

- 1) The sponsoring company must be registered with SkillsConnect.
- 2) As the course fee type for this course is Full Fee, the sponsoring company must pay full course fee to Singapore Polytechnic, before making any claim under this grant.
- 3) Payment must be presented using company cheque.
- 4) Eligible participants whose SDF Training Grant applications have been approved are to claim the grant from the Workforce Development Authority (via SkillsConnect) 120 days from the course end date.

UTAP (Union Training Assistance Programme)

NTUC union members enjoy 50% (unfunded) course fee support for up to \$250 each year when you enrol for courses supported under UTAP (Union Training Assistance Programme). Conditions apply. For more information, call NTUC Membership hotline at 6213 8008 or visit <http://skillsupgrade.ntuc.org.sg>

Registration/ Enquiries

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Academy
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The 10% Challenge encourages the non-domestic sector such as hotels, schools, commercial and government, office buildings etc, to work towards becoming Water Efficient Buildings and save 10% of their monthly water consumption.

The Water Efficiency Manager Course is an initiative under the 10% Challenge.