



SINGAPORE  
WORKFORCE SKILLS  
QUALIFICATIONS

Occupational  
Hygiene

**ATTENTION**

**OCCUPATIONAL  
HYGIENE  
PROFESSIONALS  
WSQ**

# 1

## What is Occupational Hygiene?



Occupational Hygiene (OH) is the practice of:

- anticipating and recognising Workplace Health (WH) hazards that can cause disease or discomfort
- evaluating the extent of the risks due to exposure to these hazardous agents
- controlling of risks to prevent ill health in the long or short term

### Contents

<b>1</b> What is Occupational Hygiene?	page 1
<b>2</b> Who are OH Professionals?	page 2
OH Professionals WSQ Framework	page 3
<b>3</b> Target Audience	page 4
<b>4</b> Training Options	page 8
<b>5</b> Overview of Competency Units	page 12
<b>6</b> Credit Exemption and Recognition Arrangement	page 18
<b>7</b> How to Sign Up?	page 20

## 2

## Who are OH Professionals?

OH Professionals are personnel who are involved in managing workplace health hazards and may have job roles or titles such as:

- Occupational Hygiene Officer
- Noise Monitoring Officer
- Noise Control Officer
- Confined Space Safety Assessor
- Radiation Safety Officer
- L5/L6 (non-NDT work) licensee
- N3 licensee
- HS licensee
- Competent person for sampling and monitoring of airborne contaminants

## OH Professionals WSQ Framework

The Singapore Workforce Development Agency (WDA), the Ministry of Manpower (MOM) and the Workplace Safety & Health Council (WSHC) have jointly developed the Occupational Hygiene (OH) Professionals Workforce Skills Qualifications (WSQ) Framework, in consultation with WSH Manpower, Skills and Training Council (MSTC).

### *Key Purpose*

- To support the National WH Framework which aims to assist stakeholders in taking proactive measures to improve their management of WH hazards and raise WH standards
- To train and develop competent and motivated OH Professionals who can assist employers, occupiers and other stakeholders in the anticipation, recognition, evaluation and control of WH risks at the workplace



# 3

## Target Audience

The target audience of the OH Professionals WSQ framework include:

- Workplace Safety and Health (WSH) Professionals such as WSH Coordinators, Officers, and Auditors
- Occupational Health Professionals such as nurses and physicians
- other Professionals in OH-related fields such as ergonomics, human factors, occupational psychology, biosafety, noise monitoring and control, acoustics, engineering, analytical chemistry, facility management, or human resources
- other Professionals who would like to gain knowledge and a broad appreciation of Occupational Hygiene matters at the workplace

### COURSE ELIGIBILITY

The minimum criteria for admission to the WSQ Specialist Diploma in OH are:

1. ES WPLN Level 6, OR Grade C6 in GCE 'O' Level for English and Mathematics; AND
2. Grade C6 in GCE 'O' Level Science (Chemistry and Physics)

Preference will be given to individuals who have at least 2 years of working experience in any industry. Individuals considering the WSQ Specialist Diploma in OH should also be self-directed, passionate and committed to ethical practice in Occupational Hygiene, receptive to change in the light of new evidence, possess an analytical mind and a meticulous approach to problem-solving.





***“The WSQ Specialist Diploma in OH course enhanced my knowledge and skills across a wide array of WH hazards such as ergonomics, thermal stress and physiology. I’m able to apply what I’ve learnt to reduce ill-health complaints from the workers.”***

Bhupendra Singh Balyan  
EHS Manager  
Samwoh Corporation Pte Ltd



## 4

## Training Options

Individuals can opt to undertake the WSQ Specialist Diploma in Occupational Hygiene (SDOH) or choose selected units as modular training in accordance to their needs.

### WSQ SPECIALIST DIPLOMA IN OCCUPATIONAL HYGIENE (SDOH)

The OH Professionals WSQ Framework consists of a single qualification, the WSQ Specialist Diploma in OH.

Individuals must fulfil the following requirements in order to be awarded the WSQ Specialist Diploma in OH.

- All 8 Core Units;
- 2 Electives Units from Group 1; and
- 1 Elective Unit from Group 2

*\*Refer to Pg12-17 for the selection of units*

Upon award of the SDOH, individuals will be recognised as competent to discharge the duties and responsibilities of an OH Officer.



***“I’m able to apply what I’ve learnt through the course and implement an effective OH Management System which will help enhance the productivity of my organisation.”***

Ong Yew Lee (Francis)  
VP Operations-HSE & Facility  
Halcyon Offshore Pte Ltd



## COURSE DURATION

The course duration for the WSQ SDOH ranges from 308 – 344 hours. The course duration for modular training ranges from 8 – 40 hours.

## MODULAR TRAINING

Modular training is available for most of the 20 units under this framework so that individuals can choose to undertake selected units in accordance to their needs.

## ASSESSMENT

Individuals will be assessed for each unit through various methodologies such as written questioning, written assignment, case studies, practicals and oral questioning etc.

A Statement of Attainment (SOA) will be awarded upon successful completion of each unit.



## 5

## Overview of Competency Units

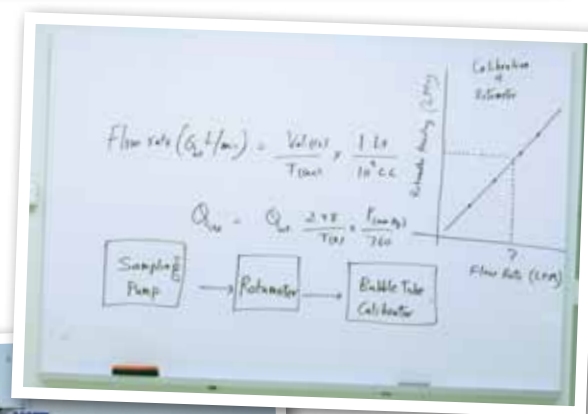
Refer to the table below for an overview of the units offered under this framework.

Competency Category Descriptor	Competency Unit	Brief Description
<b>Core Units</b>		
Generic	Interpret Basic Workplace Health Practices (OH-GE-501C-1)	Covers broad-based foundational knowledge in OH subjects and all the major hazards
Physical Hazards	Monitor Noise and Vibration (OH-PH-501C-1)	Covers the competencies for measurement of noise exposure at the workplace with the use of appropriate measuring equipment
	Control Noise and Vibration (OH-PH-502C-1)	Covers the competencies necessary to control noise and to advise employers and occupiers on noise control under the WSH (Noise) Regulations
Chemical and Biological Hazards	Measure Exposure and Assess the Risks due to Hazardous Substances (OH-CB-501C-1)	Covers skills and knowledge to evaluate health effects using appropriate sampling equipment to collect samples of airborne contaminants and assessing the associated risks due to the exposure
	Evaluate Health Effects due to Hazardous Substances (OH-CB-502C-1)	Covers the toxicology principles and health effects which would enable individuals to anticipate health risks and take proactive measures for the prevention of ill health
	Manage Hazardous Substances (OH-CB-503C-1)	Covers the competencies in identifying the sources of hazardous substances and implementing control measures to manage the associated risks
Human Factors	Evaluate Ergonomics-Related Hazards (OH-HF-501C-1)	Covers the evaluation methods to be applied in three main areas: Human-Body-Centred, Information-Centred and Organisation-Centred ergonomics
Non-Technical Skills	Compose Technical Report (OH-NT-501C-1)	Covers the planning processes, analysis of data and presentation of useful information in a concise and coherent manner that leads to conclusions aligned with the report objectives



Competency Category Descriptor	Competency Unit	Brief Description
<b>Elective Units (Group 1)</b>		
Physical Hazards	Assess and Control Thermal Stressors (OH-PH-503E-1)	Covers the human physiological response to thermal environment, approaches and methods of evaluating thermal risks and the control measures for the mitigation of heat stress and health effects
	Manage Radioactive Materials and Irradiating Apparatus (OH-PH-504E-1)	Covers the fundamental knowledge and skills for identifying radiation hazards, implementing control measures and managing radiation safety
	Control Hazards in Handling Laser Devices (OH-PH-505E-1)	Covers basic principles in controlling laser hazards and in handling laser devices and the competencies required to recognise and control hazards from laser devices to ensure safety
Chemical and Biological Hazards	Remove Asbestos From Workplace (OH-CB-510E-1)	Covers the safe handling and removal of asbestos from the workplace, formulation of an asbestos removal plan and supervising on proper ways of removing asbestos from the workplace to minimise exposure and protect the health of all involved.
	Survey Asbestos and Other Fibres Risks at the Workplace (OH-CB-509E-1)	Covers the survey of risks arising from asbestos and other fibres at the workplace, identification of asbestos hazards, evaluation of the risk using established methods, formulation of a management plan and implementation of control measures for the management of asbestos.
	Manage Skin Exposure Risks (OH-CB-505E-1)	Covers the importance of the protective roles of skin, identification of hazards that may cause injury to the skin and implementation of control measures to manage skin exposure risks
	Assess Confined Space for Safe Entry and Work (OH-CB-506E-1)	Covers the competencies to obtain representative results for the assessment of atmospheric condition in confined space for safe entry and work
	Manage Indoor Air Quality (OH-CB-507E-1)	Covers the identification and analysis of indoor air quality (IAQ) problems, the conduct of IAQ audit to measure and assess the situations and the control measures for the mitigation of IAQ issues
	Evaluate and Control Biological Hazards (OH-CB-508E-1)	Covers methods for sampling of bio-aerosols, control measures, safe practices and the use of personal protective equipment to help ensure biosafety at the workplace

Competency Category Descriptor	Competency Unit	Brief Description
<b>Elective Units (Group 2)</b>		
Non-Technical	Plan, Prepare for and Deliver Presentations (WP-IC-505E-1)	Covers the skills and knowledge in the planning, preparation and delivery of presentation
	Lead Workplace Communication and Engagement (ES-IP-401G-1)	Develops the trainee's ability (at managerial level) to work and communicate effectively in a diverse team environment and negotiate for mutually beneficial outcomes
	Solve Problems and Make Decisions at Managerial Level (ES-ACE-402G-1)	Develops the trainee's ability to generate feasible, efficient and innovative solutions to solve work problems, enhance productivity and capitalise on new opportunities
	Apply Systems Thinking in Problem Solving and Decision Making (ES-ACE-501G-1)	Covers the application of systems thinking concept to generate solutions to solve work problems, enhancing productivity and capitalising on new opportunities



## 6

## Credit Exemption and Recognition Arrangement

### CREDIT EXEMPTION

Selected units under the OH Professionals WSQ have been closely referenced to existing Ministry of Manpower (MOM) and National Environmental Agency (NEA) courses.

Individuals who have undertaken the MOM/NEA accredited courses will need to submit documentary evidence to seek exemption for corresponding units in the OH Professionals WSQ framework.

### RECOGNITION

Individuals who have been awarded SOAs for selected units under the OH Professionals WSQ framework will be accorded recognition as competent persons/licenses of the corresponding MOM/NEA accredited courses.

Please refer to the table below for more details.

Competency Unit	MOM/NEA Accredited Course	Occupational Roles/Competent Person
Monitor Noise and Vibration	Noise Monitoring Course	Noise Monitoring Officer
Control Noise and Vibration	Industrial Noise Control Course	Noise Control Officer
Measure Exposure and Assess the Risks due to Hazardous Substances	Sampling & Monitoring of Airborne Contaminants	Competent persons for sampling and monitoring of airborne contaminants
Manage Hazardous Substances	Management of Hazardous Substances	HS licensee
Manage Radioactive Materials and Irradiating Materials	Basic Ionising Radiation Safety (General) Course	L5/L6 (non-NDT work) licensee
Control Hazards in Handling Laser Devices	Basic Laser Radiation Safety Course	N3 licensee
Assess Confined Space for Safe Entry and Work	Confined Space Safety Assessor Course	Confined Space Safety Assessor
Manage Indoor Air Quality	Management of Indoor Air Quality	-

# 7

## How to Sign Up?

You can visit [www.wda.gov.sg/OHProfessionals](http://www.wda.gov.sg/OHProfessionals) for the list of training providers.

Please note that registration for courses under the OH Professionals WSQ framework should be done through the following appointed training providers:

### The Specialist Diploma in Occupational Hygiene and Modular Training

#### CET Centre

##### NTUC LearningHub Pte Ltd

73 Bras Basah Road, NTUC Trade Union House #02-01  
Singapore 189556  
T: 6471 2223 E: [enquiries@ntuclearninghub.com](mailto:enquiries@ntuclearninghub.com)  
[www.ntuclearninghub.com/home](http://www.ntuclearninghub.com/home)

#### Ngee Ann Polytechnic

535 Clementi Road, Blk 56 #01-04, Singapore 599489  
T: 6460 6353 E: [enquirycet@np.edu.sg](mailto:enquirycet@np.edu.sg)  
[www.np.edu.sg/cet/courses/pages/oh.aspx](http://www.np.edu.sg/cet/courses/pages/oh.aspx)

#### Singapore Polytechnic

500 Dover Road, Singapore 139651  
T: 6772 1288 E: [pace@sp.edu.sg](mailto:pace@sp.edu.sg)  
<http://sp.edu.sg/wps/portal/vp-spws>

#### Programme Partner

##### ESIS Academy Pte Ltd

600 North Bridge Road, Parkview Square #06-09, Singapore 188778  
T: 6398 8660 E: [enquiries.sg@esis.com](mailto:enquiries.sg@esis.com)  
[www.esis.com.sg](http://www.esis.com.sg)

### Modular Training

#### Programme Partners

##### COMAT Training Services Pte Ltd

##### (previously ST-Electronics (eServices) Pte Ltd)

10 Anson Road, #06-19/20 International Plaza, Singapore 079903  
T: 6323 7911 E: [trainme\\_comat@comat.com.sg](mailto:trainme_comat@comat.com.sg)  
[www.sheqcomat.com.sg/](http://www.sheqcomat.com.sg/)

##### Ascendo Consulting Pte Ltd

9 Little Road (Tai Seng MRT Station) #02-01, Singapore 536985  
T: 6398 0067/ 9688 3579 E: [info@ascendo.sg](mailto:info@ascendo.sg)  
[www.ascendo.sg](http://www.ascendo.sg)

Special thanks to the following organisations  
for their assistance in production

Singapore Polytechnic  
and  
ESIS Academy Pte Ltd



Website: [www.wda.gov.sg](http://www.wda.gov.sg)  
Email: [wda\\_enquiry@wda.gov.sg](mailto:wda_enquiry@wda.gov.sg)  
Facebook: [www.facebook.com/WDASingapore](http://www.facebook.com/WDASingapore)  
Tel: 6883 5885