TRAINING AND ASSESSMENT GUIDE (TAG)

SPECIALIST DIPLOMA IN WORKPLACE SAFETY AND HEALTH

Competency Unit	:	Specialist Diploma In Workplace Safety and Health
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Workplace Safety & Health Professionals (WSHP) WSQ Framework

Summary of Competency Units (CU)

Category	Competency Code	Competency Unit Title	RLH[1]
Compulsory Core Units			
Plan and Review	WP02-PR-501C-1	Establish WSH Policy and Advise on WSH Legal Compliance Issues	32 hrs
	WP02-PR-502C-1	Identify WSH Hazards and Assess WSH Risks	24 hrs
	WP02-PR-503C-1	Recommend WSH Control Measures	24 hrs
	WP02-PR-504C-1	Manage WSH Risks	24 hrs
	WP02-PR-505C-1	Develop a WSH Management System	12 hrs
Implement Operational Control of WSH	WP02–IC–501C-1	Design and Implement Behavioural Safety Programme	16 hrs
	WP02–IC–502C-1	Establish and Review Emergency Preparedness and Response Plan	20 hrs
	WP02–IC–503C-1	Develop a WSH Culture	16 hrs
	ES-IP-401G-1	Lead Workplace Communication and Engagement (ES WSQ)	24 hrs
	OH-NT-501C-1	Compose Technical Report (OHP WSQ)	8 hrs
Check and Take Corrective/ Preventive Actions for WSH	WP02–CA–501C-1	Establish Measurement and Monitoring of WSH Performance	20 hrs
	WP02–CA–502C-1	Establish and Manage WSH Incident Investigation and Analysis Process	20 hrs
	WP02–CA–503C-1	Manage Internal WSH Management System Audit	24 hrs
Elective Units			
Group 1	WP02-PR-506E-1	Manage WSH in Construction Industry	24 hrs
	WP02-PR-507E-1	Manage WSH in Chemical, Process, Pharmaceutical Industries and Laboratories	24 hrs
	WP02-PR-508E-1	Manage WSH in Manufacturing Industry	24 hrs
	WP02-PR-509E-1	Manage WSH in Service Industry	24 hrs
	WP02-PR-510E-1	Manage WSH in Marine Industry	24 hrs
Group 2	WP02-PR-511E-1	Establish Environmental Management System	24 hrs
	WP02-PR-512E-1	Develop a Business Case for WSH	24 hrs
	WP02-PR-513E-1	Apply Human Factors in Job Design	32 hrs
	WP02–IC–504E-1	Manage Financial Resources for WSH	24 hrs

	WP02–IC–505E-1	Plan, Prepare and Deliver Presentations	16 hrs
	ES-ACE-401G-1	Support the Establishment of an Initiative and Enterprise Framework (ES WSQ)	24 hrs
	ES-ACE-402G-1	Solve Problems and Make Decision at Managerial Level (ES WSQ)	24 hrs
	ES-IP-402G-1	Develop a Work Team (ES WSQ)	24 hrs
	ES-IP-501G-1	Manage Cross Functional and Culturally Diverse Team (ES WSQ)	24 hrs
	TR-TDL-304C-1	Prepare and Facilitate Classroom Training (TAE Framework)	22 hrs

Note: 1 –RLH = Recommended Learning Hours

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Purpose of Guide

This Guide is designed for WDA's Approved Training Organisations (ATOs) and Adult Educators who are responsible for the design and delivery of the Specialist Diploma in Workplace Safety & Health (SDWSH) of the Workplace Safety & Health Professionals (WSHP) WSQ Framework.

This Guide aims to provide essential training and assessment design advisory information, to guide developers, trainers and assessors in the interpretation and translation of competency standards into training and assessment programme.

The Guide also contains training and assessment requirements stipulated by industry, and WSQ accreditation information for compliance. It is divided into TWO (2) parts:

Part 1: Specific recommendations and advice for programme developers, trainer and assessor on the relevant competency units for SDWSH under the WSHP WSQ Framework.

Part 2: Provides a broad spectrum of information about WSQ and supporting resources related to the SDWSH programme and the relevant competency units.

PART 1

WSHP WSQ
Specialist Diploma
in Workplace Safety & Health

1 The Workplace Safety and Health Professional (WSHP) WSQ Framework

1.1 Overview

The Workplace Safety and Health Professionals Workforce Skills Qualifications Framework (or WSHP WSQ Framework for short) was developed jointly by the Ministry of Manpower (MOM) and the Singapore Workforce Development Agency (WDA) in 2007 to equip WSH Professionals with the relevant technical competencies to build WSH capabilities in Singapore.

1.2 Purpose

The primary purpose of the WSHP WSQ framework is to equip WSH professionals with the relevant competencies to perform their jobs. It also includes the following objectives:

- Provides a clear pathway for career progression and upgrading so as to attract more people into the WSH profession
- Supports the competency upgrading for existing WSH professionals.

1.3 Key Features

There are 4 levels in the WSHP WSQ framework. At each level, the key features are briefly described as follows:

Level	Qualification	Requirements		Job Title
		Core	Elective	
D	Graduate Certificate in WSH (GCWSH)	6	1	WSH Auditor
C	Specialist Diploma in WSH (SDWSH)	13	3	WSH Officer
B	Advance Certificate in WSH (ACWSH)	8	2	WSH Coordinator
A	Certificate in WSH (CWSH)	5	1	WSH Representative

The WSHP WSQ Framework has incorporated the following key features to equip WSH Professionals with the relevant technical competencies to build WSH capabilities in Singapore:

- Emphasis on WSH relevant working experience where, as a course entry pre-requisite, the course applicants have the relevant number of years of WSH working experience as a foundation for the next level of training to build upon.

- Strengthen the four core domains (WSH Legislation, Risk Management, WSH Management System and WSH Culture) to ensure a more comprehensive coverage with minimal gaps and overlaps within same level and between levels.

- Integration of assessment at each qualification level with clear deliverables taken from a holistic view at end of the course. Assessments are not based on individual Competency Units but designed for synergy between two or more Competency Units taken together.

1.4 Qualifications Roadmap for WSH Practitioners

The WSHP WSQ Framework covers comprehensively the competencies, knowledge, performance, personal attributes and qualifications. This will serve as the development, performance and career progression guidance for WSH Practitioners in their pursuit of lifelong learning and professional progression.

Level	Course Entry Requirements	Assumed Skills and Knowledge (ASK)
LEVEL A Certificate in WSH	• NA	• ES Workplace Literacy and Numeracy Level 4 or Secondary 2 education; • Completed ES WSH **AND** • Preferably hold a WSH related appointment
LEVEL B Advanced Certificate in WSH	• NA	• ES Workplace Literacy and Numeracy Level 5 or GCE "N" Level English grade 5 & Mathematics grade 5; **AND** • Possess WSH skills and knowledge equivalent to that of Certificate in WSH with at least 1 year of WSH relevant working experience
LEVEL C Specialist Diploma in WSH	**EITHER** • Recognised Technology/ Science-related diploma/ Engineering degree **AND** • At least 2 years of WSH relevant working experience **OR** • Possess ES Workplace Literacy Level 6 or GCE "O" Level English grade C6 **AND** • GCE "O" level Maths & Science grade C6, or bridging course **AND** • Possess WSH skills and knowledge equivalent to that of Advanced Certificate in WSH **AND** • Have at least 2 years of post-WSH qualification working experience as WSH supervisor, WSH Coordinator or similar occupational role	• Self-directed learner • Possess an open and analytical mind • Objective and factual in reporting

Level	Course Entry Requirements	Assumed Skills and Knowledge (ASK)
LEVEL D Graduate Certificate in WSH	**EITHER** • A 5ecognized WSH degree qualification for WSHO registration with MOM[1]; **AND** • At least 2 years of post-WSH qualification working experience as a WSH officer or similar occupational role **OR** • Technology/ Science-related/ Engineering diploma/degree; **AND** • WSQ Specialist Diploma in WSH qualification (Level C); **AND** • At least 2 years of post-WSH qualification working experience as a WSH officer or similar occupational role **OR** • GCE "O" Level English & Mathematics grade B4 or ES Workplace Literacy and Numeracy Level 7; **AND** • WSQ Specialist Diploma in WSH qualification (Level C); **AND** • At least 2 years of post-WSH qualification working experience as a WSH officer or equivalent	• Self-directed learner • Possess an open and analytical mind • Objective and factual in reporting

1 – A recognized WSH degree qualification for WSHO registration with MOM includes:
- Bachelor of Environmental and Occupational Health and Safety Degree conferred by the University of Newcastle, Australia
- Master of Science in Safety, Health and Environmental Technology conferred by National University of Singapore
- Bachelor of Science (Health and Safety) conferred by the Curtin University of Technology (Australia) – Singapore Campus
- Bachelor of Science in Human Factor in Safety conferred by the SIM University (UniSIM)

2 WSQ Specialist Diploma in Workplace Safety and Health

2.1 Overview

The WSQ Specialist Diploma in Workplace Safety and Health (SDWSH) qualification is designed for individuals who are keen to join the Workplace Safety and Health profession as WSH Officers. The SDWSH is one of the four qualifications under the WSH Professionals WSQ framework and is a recognized qualification for registration as a WSH Officer under the Workplace Safety and Health Act.

To attain the Specialist Diploma in WSH, learners are required to complete the following competency units and be certified '**COMPETENT**'.

- A. 13 Compulsory Core Units, and
- B. Choice of 3 Elective Units:

  a. **At least One Elective Unit** from the following listed in **Group 1**
     - i. Manage WSH in Construction Industry
     - ii. Manage WSH in Marine Industry
     - iii. Manage WSH in Chemical, Process, Pharmaceutical Industries and Laboratories
     - iv. Manage WSH in Manufacturing Industry
     - v. Manage WSH in Service Industry

  b. **At least One Elective Unit** from the following listed in **Group 2**
     - i. Plan, Prepare and Deliver Presentations
     - ii. Manage Financial Resources for WSH
     - iii. Establish Environmental Management System
     - iv. Develop a Business Case for WSH
     - v. Apply Human Factors in Job Design
     - vi. Support the Establishment of an Initiative and Enterprise Framework (ES WSQ)
     - vii. Solve Problems and Make Decision at Managerial Level (ES WSQ)
     - viii. Develop a Work Team (ES WSQ)
     - ix. Manage Cross Functional and Culturally Diverse Team (ES WSQ)
     - x. Prepare and Facilitate Classroom Training (TAE Framework)

Note: Learners must successfully complete 12 compulsory CORE units and 3 ELECTIVE units before they are allowed to take the last compulsory CORE unit "Develop a WSH Management System"

2.2 Key Features

The design of the SDWSH qualification has incorporated the following key features to equip learners with the essential and advanced skills and knowledge in Workplace Safety and Health.

- Advocate a **practice-oriented training** approach which focus on relating theories to workplace job requirements

- Enhance the communication skills by providing more opportunities for presentation

- Emphasise the core domain knowledge on Risk Management

- Emphasise the teaching of WSH legislation and its application at the workplace with more case studies and lessons learnt

- Enhance report writing skills by introducing a compulsory core unit on "Compose Technical Report"

- Enhance awareness of WSH Culture by introducing a compulsory CORE unit "Develop a WSH Culture"

- Enhance confidence in communicating a business case to meet an organization's WSH needs by introducing an elective unit on "Developing a Business Case for WSH"

2.3 Importation of Credits from other WSQ Frameworks

The following are the competency units which are imported from the Employability Skills – Workplace Skills (ES) WSQ Framework, Occupational Hygiene Professionals (OHP) WSQ Framework and the Training and Adult Education (TAE) WSQ Framework.

Competency Code	Competency Unit	Core	Elective
Employability Skills – Workplace Skills (ES) WSQ Framework			
ES-IP-401G-1	Lead Workplace Communication and Engagement	✓	
ES-IP-402G-1	Develop a Work Team		✓
ES-ACE-402G-1	Solve Problems and Make Decision at Managerial Level		✓
ES-ACE-401G-1	Support the Establishment of an Initiative and Enterprise Framework		✓
ES-IP-501G-1	Manage Cross Functional and Culturally Diverse Team		✓
Occupational Hygiene Professionals (OHP) WSQ Framework			
OH-NT-501C-1	Compose Technical Report	✓	
Training and Adult Education (TAE) WSQ Framework			
TR-TDL-304C-1	Prepare and Facilitate Classroom Training		✓

2.4   Target Audience

These units will be relevant to WSH Officer, WSH Manager, WSH Professional, WSH Advisor, EHS or HSE Engineer, or equivalent.

2.5   Credit Exemption

Credit exemption refers to the automatic granting of a competence result based on a learner's former demonstration of competency in the unit. Credit (advanced standing) can only be given when the equivalence between two units is articulated in curriculum documentation

Several units are eligible for credit exemption, if candidates have already attained SOAs for the earlier version of the respective units. Refer to **Annex H** for the list of credit exemptions.

2.6   Recommended Learning Hours (RLH)

The Recommended Learning Hours proposes the total **hours** of competency-based training and assessment per trainee, taking into account the time required for directed learning activities. Directed learning is broadly defined as trainer/assessor-directed and purposefully instructed to trainees to complete as part of instructional design of a structured training and assessment programme.

The recommended learning hours for the competency units are reflected in the table below:

No	Competency Unit Title	Training Hours	Assessment Hours	Total Hours
Compulsory Core Units				
C1	Establish WSH Policy and Advise on WSH Legal Compliance Issues	28	4	32
C2	Identify WSH Hazards and Assess WSH Risks	20	4	24
C3	Recommend WSH Control Measures	20	4	24
C4	Manage WSH Risks	20	4	24
C5	Develop a WSH Culture	14	2	16
C6	Design and Implement Behavioural Safety Programme	14	2	16
C7	Establish and Review Emergency Preparedness and Response Plan	16	4	20

No	Competency Unit Title	Training Hours	Assessment Hours	Total Hours
C8	Establish and Manage WSH Incident Investigation and Analysis Process	16	4	20
C9	Establish Measurement and Monitoring of WSH Performance	16	4	20
C10	Manage Internal WSH Management System Audit	20	4	24
C11	Lead Workplace Communication and Engagement (ES WSQ)	*	*	24
C12	Compose Technical Report (OHP WSQ)	7.5	0.5	8
C13	Develop a WSH Management System	8	4	12

No	Competency Unit Title	Training Hours	Assessment Hours	Total Hours
Elective Units				
E1	Manage WSH in Construction Industry	20	4	24
E2	Manage WSH in Chemical, Process, Pharmaceutical Industries and Laboratories	20	4	24
E3	Manage WSH in Manufacturing Industry	20	4	24
E4	Manage WSH in Service Industry	20	4	24
E5	Manage WSH in Marine Industry	20	4	24
E6	Establish Environmental Management System	20	4	24
E7	Develop a Business Case for WSH	20	4	24
E8	Apply Human Factors in Job Design	28	4	32
E9	Manage Financial Resources for WSH	20	4	24
E10	Plan, Prepare and Deliver Presentations	12	4	16
E11	Develop a Work Team (ES WSQ)	*	*	24
E12	Solve Problems and Make Decision at Managerial Level (ES WSQ)	*	*	24
E13	Support the Establishment of an Initiative and Enterprise Framework (ES WSQ)	*	*	24

No	Competency Unit Title	Training Hours	Assessment Hours	Total Hours
E14	Manage Cross Functional and Culturally Diverse Team (ES WSQ)	*	*	24
E15	Prepare and Facilitate Classroom Training (TAE Framework)	^	^	22

* Refer to the Employability Skills WSQ Curriculum, Training and Assessment Guide for more details.

^ Refer to the Prepare and Facilitate Classroom Training WSQ Curriculum, Training and Assessment Guide for more details

2.7 Recommended Class Size and Trainer-Learner Ratio

For training to be effective, it is recommended that the class size for this Competency Unit be 10 participants per class. A class should not exceed 25 participants at its maximum capacity. Training organisations should be mindful that learners be given sufficient opportunities to practice their application skills under the guidance of the trainer.

The maximum Trainer-Learner Ratio is 1: 25.

2.8 Recommended Assessor-to-Candidate Ratio

The recommended ratio of assessor to candidate which can be adopted for each different type of assessment strategy deployed is as follows:

No	Assessment Strategy	Assessor-to-Candidate Ratio
1	Individual Project Assignment	1:1
2	Role Play	1:5
3	Case Study	1:25
4	Oral Question Interview	1:1
5	Written Test	1:25
6	Practical Performance	1:3

3   Types of Programme

3.1   Overview

There are two types of programme that can be offered under the WSQ framework.

- a) Programme with one Competency Unit (Modular)
- b) Integrated programme with multiple Competency Units

ATOs may offer the compulsory core and elective units for SDWSH as an individual programme or bundled as an integrated programme, depending on the creativeness and marketing strategy approach adopted by the respective training provider.

3.2   Programme with One Competency Unit

This programme is developed based on only one competency unit. There is little or minimal correlation with other competency units. This standalone training programme will cover the competency requirements stated in the competency standard document.

Upon successfully completing the training programme, the learner will be awarded a Statement of Attainment (SOA) for the specific competency unit. An illustration is given below.
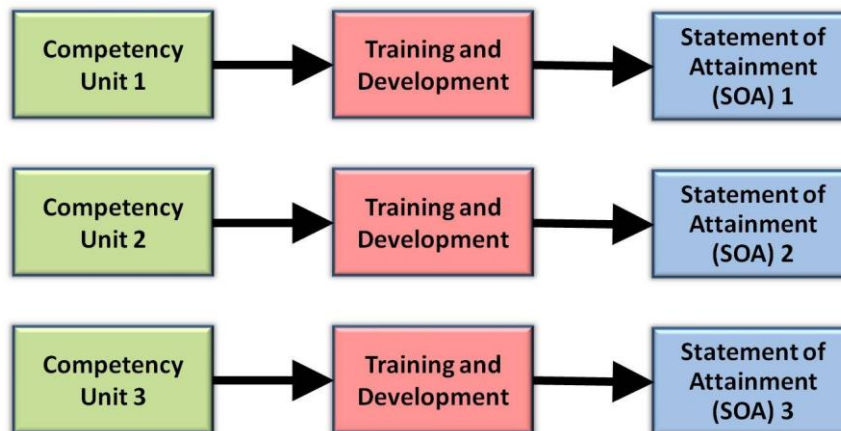
Developers are discouraged from lifting the performance standards or underpinning knowledge straight from the competency standard and use them as learning outcomes. They should first examine what the learner should be able to perform at the workplace upon end of training (learning outcomes), and unpack the competencies to the learning outcomes accordingly.

3.3 Integrated Programme with Multiple Competency Units

In order to meet the needs of the learners, ATOs may consider combining two or more competency units into a single integrated training programme. The competency units must be selected carefully in order to develop a learning programme that is meaningful and relevant to the learners. Developers should develop an integrated programme when there is significant overlap of learning outcomes.

The sequencing of the learning content need not follow the sequence of competency requirements in the competency standard documents. They may be rearranged within the same or across different competency units as deemed most appropriate for learners. Nevertheless, the sequencing of learning content should be logical and provide sufficient scaffolding for training to be effective. Learners should not be made to go through the same competency unit again as they progress from one training programme to another once they have acquired the SOA. Furthermore, ATOs have the flexibility to select course titles other than adhering the names of the individual competency units making up the programme if required.

Upon successful completion of such a programme, learners will be issued with two or more Statements of Attainment (SOAs) according to the competency units. An illustration is given below.
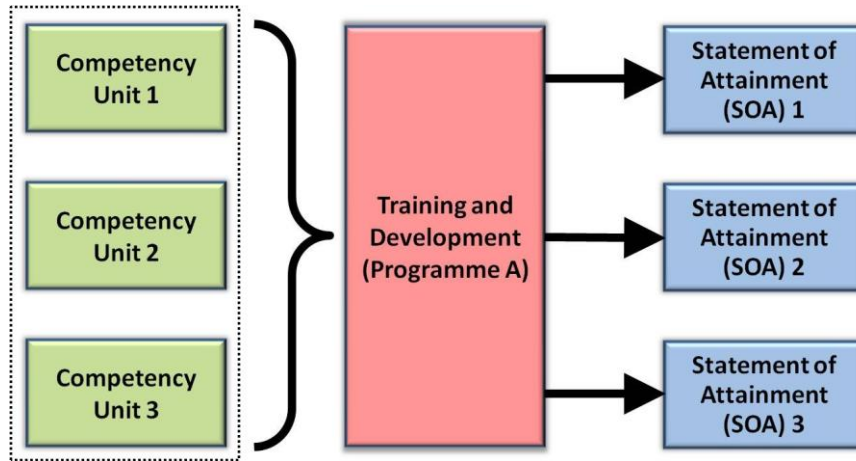
The following competency units from the WSHP WSQ Framework **MUST** be bundled as an integrated programme:

WP-PR-512C-1	Identify WSH Hazards and Assess WSH Risks	**RISK MANAGEMENT PROGRAMME**
WP-PR-513C-1	Recommend WSH Control Measures	
WP-PR-514C-1	Manage WSH Risks	

4   Key Delivery Advice

4.1   Content Coverage

In developing the programme for any competency unit listed in the WSHP WSQ Framework, ATOs should always make cross references to the Performance Statements (PS), Underpinning Knowledge (UK), Range of Application and Evidence Sources sections as stipulated in the said unit.

ATOs are advised to select relevant Range of Application items listed when developing the courseware for the said unit. But, for Range of Application accompanied with "**MUST INCLUDE**", all items listed in the Range of Application must be covered when developing the courseware. ATOs may also add additional content based on the context and needs of the target audience, industry, etc.

ATOs are advised to contextualise their programmes by covering the Range of Application items in the respective competency units which are deemed relevant to the context of the target audience. Contextualisation of the programme content normally revolves around the Range of Application of the Competency Unit.

4.2   Sequence of Coverage

The **recommended** sequence of coverage of the SDWSH programme for ATOs offering the SDWSH qualification to structure the administration and delivery of SDWSH programme to complement sequential learning order suited for most learners is recommended below:

A: 12 Compulsory Core Units

1. INTRODUCTION
• Establish WSH Policy and Advise on WSH Legal Compliance Issues
2. RISK MANAGEMENT
• **Identify WSH Hazards and Assess WSH Risks • Recommend WSH Control Measures • Manage WSH Risks
3. IMPLEMENT OPERATIONAL CONTROL
• Establish and Review Emergency Preparedness and Response Plan • Compose Technical Report • Lead Workplace Communication and Engagement
4. CHECK AND TAKE CORRECTIVE AND PREVENTIVE ACTIONS

** The Risk Management process should consider the management of infectious disease outbreak, employees' health (including mental well-being) and terrorist threats. Training Provider should take reference from the 3rd revision of the Code of Practice on Risk Management.

• Establish and Manage WSH Incident Investigation and Analysis Process • Establish Measurement and Monitoring of WSH Performance • Manage Internal WSH Management System Audit
5. WSH CULTURE & BEHAVORIAL SAFETY
• Develop a WSH Culture • Design and Implement Behavioural Safety Programme

B: Choice of 3 Elective Units

1. **Choose <u>at least</u> one Elective Unit** from the Competency Units listed in **Group 1**

2. **Choose <u>at least</u> one Elective Unit** from the Competency Units listed in **Group 2**

Elective Units	
Group	**Competency Unit**
Group 1	• Manage WSH in Construction Industry • Manage WSH in Marine Industry • Manage WSH in Chemical, Process, Pharmaceutical Industries and Laboratories • Manage WSH in Manufacturing Industry • Manage WSH in Service Industry
Group 2	• Establish Environmental Management System • Develop a Business Case for WSH • Apply Human Factors in Job Design • Manage Financial Resources for WSH • Plan, Prepare and Deliver Presentations • Develop a Work Team (ES WSQ) • Solve Problems and Make Decision at Managerial Level (ES WSQ) • Support the Establishment of an Initiative and Enterprise Framework (ES WSQ) • Manage Cross Functional and Culturally Diverse Team (ES WSQ) • Prepare and Facilitate Classroom Training (TAE Framework)

C: Final Core Unit

Note: This core unit **MUST** be taken only after succession attainment of the other 15 Core and Elective units' SOAs required for the qualification.

1. WSH MANAGEMENT SYSTEM
• Develop a WSH Management System

4.3 Delivery Strategies and Methods

It is strongly recommended to advocate a **practice-oriented training** approach in developing each competency unit listed in the WSHP WSQ Framework.

The competency unit may be delivered on-the-job and/or off-the-job. Content relating to underpinning knowledge and principles may be delivered off-the- job in a classroom setting. The practical aspects of the competency unit, however, should be delivered on-the-job, at the worksite, in simulated workplace settings or through role play.

Off-the-job delivery can be face-to-face in the classroom in a training organisation, or at a workplace venue. Classroom delivery should emphasise interactive and learner-centred learning and use a flexible range of learning and teaching methods. Content relating to underpinning knowledge and principles may be delivered through lecture presentation and group discussions and assessed through quizzes, questionnaire, written exercises, case studies and etc. Product and process evidence should be collected through activities such as role-plays or producing work samples in class.

An on-the-job environment can be at the worksite or in simulated workplace settings. All training delivery should be related to the actual work condition that the trainee will be expected to encounter.

ATOs should plan for **more case studies, role-play and group discussions to take each WSH topics into deeper discussion** with the learners.

ATOs should not focus only on theory but **relate the theory to workplace job requirements.** Every effort must be made to emphasise the direct relationship between the acquisition and application of the skills, knowledge and attitudes to their workplace. In particular:

- C1 Establish WSH Policy and Advise on WSH Legal Compliance Issues – This competency unit is the integration of two former units to emphasize the co-relation and application of WSH legislature within WSH policy. An additional 10 hours have been allocated to ensure participants have sufficient time to **discuss in depth the interpretation of WSH policy to**

the industries and **how WSH legislations can be better applied under various scenarios**. ATOs must ensure that facilitators have ground experience to guide participants in actual workplace legal compliance issues and how to overcome them correctly in accordance to legal compliance.

- C2 Identify WSH Hazards and Assess WSH Risks, C3 Recommend WSH Control Measures & C4 Manage WSH Risks – These three competency units encompasses the full Risk Management Cycle. They must be taught as **one integrated package** in order for participants to see the full and complete flow. In addition, these three modules' content coverage is designed to ensure that participants have a good all round grasp of the types of hazards and control measures for various industries including construction, manufacturing, marine, process, oil and gas as well as service. It attempts to give participants a firm foundation before proceeding to the new industry electives whereby they will go in greater depth into their respective industries. ATOs are advised to conduct these modules at the work-site to provide realistic training to the participants.

- C5 Develop a WSH Culture – ATOs must be familiar with the WSH CultureSAFE model as this model will form the backbone of the competency unit. At Level C, participants are expected to develop and implement WSH Culture programmes aligned to the WSH CultureSAFE model. ATOs should draw success stories from the various industries and if possible visit the companies on-site.

- C6 Design and Implement Behavioural Safety Programme – This competency unit complements the WSH Culture module and should be **taught one after the other**. More time has been allocated to ensure participants have hands-on practice with actual workplace scenarios.

- C7 Establish and Review Emergency Preparedness and Response Plan - The key focus of this revised competency unit is to **enlarge the scope of emergency preparedness and response** beyond just fire emergencies. Participants have two additional hours to be familiar with a wider range of emergency scenarios in our local context including collapse of cranes, flooding, pandemic flu and many others.

- C8 Establish and Manage WSH Incident Investigation and Analysis Process – This unit is a follow-on to the corresponding unit at Level B. The **key focus at Level C is root cause analysis** and not just procedures. Hence ATO must draw the differences between the two levels and emphasize the process and application areas, in particular, root cause analysis and corrective and preventive actions (CAPA).

- C9 Establish Measurement and Monitoring of WSH Performance – This competency unit has been provided additional hours to enable participants to have more time for **in-depth discussion and on-site practice**.

- C10 Manage Internal WSH Management System Audit – This competency unit has been provided two more additional hours to enable participants to have more time for in**-depth discussion and on-site practice**.

As far as possible, ATOs should arrange for all the WSH **projects to be carried out at the candidate's own company or on site.**

To further enhance the transfer of learning, an andragogical or adult-oriented approach to learning is encouraged in the development and delivery of the Competency Unit. Andragogical instructional techniques are designed with these factors in mind:

- Adults are self-directed
- Adults have acquired a large amount of knowledge and experience that can be utilised as a resource for learning
- Adults have acquired a large amount of knowledge and experience through workplace learning
- Adults show a greater readiness to learn tasks that are relevant to the roles they have in life
- Adults are motivated to learn in order to solve problems or address needs and they expect to immediately apply what they learn to these problems and needs
- Adults need to be challenged with varied strategies that maintain interest

The following table is a non-exhaustive list of examples of some training delivery and cooperative learning strategies and how they are best incorporated into training. There are other methods beyond this list that may be effective at supporting training as well.

Delivery Strategy	Application
Online	24/7 delivery platform - Allow learners to learn at their own time own pace - Provide linkages to the workplace and vice versa - Useful for iReporting - Can be resource intensive and require time to prepare
Lecture/ Presentation	- Efficient method to introduce new concepts, explain a process or give details on a specific WSH subject matter - Generally used for presenting knowledge - Often trainer-centered; little or no interaction with learners
Pair-Share/ Discussion	- Two-way interaction to allow learners examine issues - Best method for a small group of learners - Ideal for analysing problems, attitudes or difficult situations - Can be time consuming
Role Play	Effective method for learners to experiment new skill or to

Delivery Strategy	Application
	test their actions in certain situations • Good way to simulate an actual work environment • Can be time consuming, depending on the length of the role • Requires research and preparation of facts
Written Exercise/ Assignment	• Useful to reinforce knowledge through writing • May be done in class or after class at the workplace • Practice procedures and mandatory filling of forms
Case Study	• Opportunity for learners to apply newly learned knowledge to a specific WSH situation • Good method to use lessons learnt from WSH incidents • Can help to relate many WSH situations in one case study
Demonstration cum practice	• Effective method to show learners a task step-by-step • Commonly used for skill development • Best conducted in small groups or one-on-one • Should follow up with individual practice • Used together with a performance checklist
Site visits	• Good method for learners observe and learn in a workplace environment (E.g. Identifying hazards) • After observation, a discussion should be conducted to analyse the lessons learnt • Competency checklist is a useful tool to guide observation • May be restricted by time and opportunity
Use of social media and Internet	• Good way for learners to access relevant WSH information anytime any place (E.g. active learning by researching WSH legislature online for assignments) • May be used to support learning during site-visits • Good way to track learning progress

At the Specialist Diploma level, learners should be given more opportunities to **analyze**, **synthesize** and to **evaluate**. Where relevant and appropriate, the learning activities should be designed to shape or cultivate the expected attitudes of the learners and to prepare them for their role in the sector.

Industry Requirements

There are no industry requirements pertaining to training methods for this qualification.

4.4 Matrix of Recommended Delivery Methods

The following are the recommended training delivery methods for each

competency unit:

No	Competency Unit Title	Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
Compulsory Core Units									
C1	Establish WSH Policy and Advise on WSH Legal Compliance Issues	✓	✓	✓	✓	✓	-	-	✓
C2	Identify WSH Hazards and Assess WSH Risks	✓	✓	✓	✓	✓	✓	✓	✓
C3	Recommend WSH Control Measures	✓	✓	✓	✓	✓	✓	✓	✓
C4	Manage WSH Risks	✓	✓	✓	✓	✓	✓	✓	✓
C5	Develop a WSH Culture	✓	✓	✓	✓	✓	-	-	✓
C6	Design and Implement Behavioural Safety Programme	✓	✓	-	✓	✓	-	-	✓
C7	Establish and Review Emergency Preparedness and Response Plan	✓	-	✓	✓	✓	✓	✓	✓
C8	Establish and Manage WSH Incident Investigation and Analysis Process	✓	✓	✓	✓	✓	✓	✓	✓
C9	Establish Measurement and Monitoring of WSH Performance	✓	✓	✓	✓	✓	-	-	✓
C10	Manage Internal WSH Management System Audit	✓	✓	✓	✓	✓	✓	✓	✓
C11	Lead Workplace Communication and Engagement (ES WSQ)	✓	✓	✓	✓	✓	-	-	-
C12	Compose Technical Report (OHP WSQ)	✓	✓	-	✓	-	-	-	-
C13	Develop a WSH Management System	✓	✓	-	✓	-	-	-	-
Elective Units									
E1	Manage WSH in Construction Industry	✓	✓	✓	✓	✓	✓	✓	✓
E2	Manage WSH in Chemical, Process, Pharmaceutical Industries and Laboratories	✓	✓	✓	✓	✓	✓	✓	✓

E3	Manage WSH in Manufacturing Industry	✓	✓	✓	✓	✓	✓	✓	✓
E4	Manage WSH in Service Industry	✓	✓	✓	✓	✓	✓	✓	✓

No	Competency Unit Title	Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
E5	Manage WSH in Marine Industry	✓	✓	✓	✓	✓	✓	✓	✓
E6	Establish Environmental Management System	✓	✓	-	✓	✓	-	-	✓
E7	Develop a Business Case for WSH	✓	✓	✓	✓	-	-	-	✓
E8	Apply Human Factors in Job Design	✓	✓	✓	✓	✓	✓	-	✓
E9	Manage Financial Resources for WSH	✓	✓	✓	✓	✓	✓	-	✓
E10	Plan, Prepare and Deliver Presentations	✓	✓	✓	✓	-	✓	-	-
E11	Develop a Work Team (ES WSQ)	✓	✓	✓	✓	✓	-	-	-
E12	Solve Problems and Make Decision at Managerial Level (ES WSQ)	✓	✓	✓	✓	✓	-	-	-
E13	Support the Establishment of an Initiative and Enterprise Framework (ES WSQ)	✓	✓	✓	✓	✓	-	-	-
E14	Manage Cross Functional and Culturally Diverse Team (ES WSQ)	✓	✓	✓	✓	✓	-	-	-
E15	Prepare and Facilitate Classroom Training (TAE Framework)	✓	✓	✓	✓	✓	-	-	-

NOTE: All compulsory units from C1 to C12 and 3 chosen elective units must be successfully completed before learners can be allowed to proceed to complete the last compulsory core unit (C13 – Develop a WSH Management System).

NOTE: Refer to the Employability Skills WSQ Curriculum, Training and Assessment Guide for further details on the recommended training methods for ES WSQ units.

C1 Establish WSH Policy and Advise on WSH Legal Compliance Issues

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	-	-	✓

Performance Statements

PS1 Formulate WSH policy statement and objectives in consultation with relevant stakeholders to meet organizational needs

PS2 Develop WSH organisation structure and identify organisation-wide programmes to implement WSH policy and objectives

PS3 Communicate and advice WSH policy, objectives and applicable WSH legal and other requirements to relevant stakeholders for compliance

PS4 Develop methods to monitor the progress towards achieving the WSH policy, objectives compliance to applicable legal and other requirements in the organization

PS5 Update stakeholders on new or amended legal and other requirements to maintain compliance

PS6 Develop process for effective review of WSH policy and objectives according to organizational requirements

Underpinning Knowledge

UK1 Factors that may influence the organization's WSH policy and objectives <Analysis>

UK2 Relevant stakeholders for clarification of WSH legal and other requirements <Application>

UK3 Applicable WSH legal and other requirements on WSH policy and objectives <Analysis>

UK4 Considerations in developing WSH organizational structure <Application>

UK5 Types of Organizational wide programs for WSH <Application>

UK6 Means of Communications <Application>

UK7 Types of advice on compliance with WSH legal and other requirements <comprehension>

UK8 Methods of monitoring progress (Application)

UK9 Means of updating new and amended WSH legal and other requirements <Application>

UK10 Process for review of WSH policy, objectives and applicable legal and other requirements <Analysis>

UK11 Types of information required for review of WSH policy and objectives <Application>

UK12 Scope and criteria of WSH policy and objectives review <Comprehension>

UK13 Impact to organization arising from process review <Analysis>

UK14 Changes in policy arising from review <Analysis>

C2 Identify WSH Hazards and assess WSH Risks

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	✓	✓	✓

Performance Statements

PS1 Establish the workflow for a Risk Management (RM) Plan for the organisation in compliance with WSH applicable legal and other requirements

PS2 Form the Risk Management (RM) and Risk Assessment (RA) team

PS3 Analyse organisation's routine and non-routine processes and activities to establish the scope of risk assessment

PS4 Identify types of hazards using relevant information

PS5 Evaluate the impact of the hazards to safety and health of personnel, and prioritise the risk level using appropriate risk assessment methods

Underpinning Knowledge

UK1 Legal and other requirements applicable to risk management <Application>

UK2 Process to develop a Risk Management Plan <Application>

UK3 Structure, responsibilities and competences of risk management(RM) and Risk Assessment (RA) teams <Application>

UK4 Routine and non-routine activities <Application>

UK5 Scope of risk assessment <Application>

UK6 Information relevant to risk assessment <Analysis>

UK7 Methods of hazard identification <Analysis>

UK8 Nature and types of WSH hazards <Analysis>

UK9 Impact of hazards to safety and health of personnel <Analysis>

UK10 Methods of risk evaluation <Analysis>

UK11 Types of risk assessment records used in risk assessment <Application>

C3 Recommend WSH Control Measures

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	✓	✓	✓

Performance Statements

PS1   Formulate a risk control strategy based on the principles of the Hierarchy of Control

PS2   Recommend reasonably practical risk control measures based on the risk control strategy and in consultation with relevant stakeholders

PS3   Formulate the implementation plan, in alignment with organisational WSH policies

PS4   Communicate the risks and control measures to the relevant stakeholders, in accordance to legal and other requirements

PS5   Maintain the risk assessment documentation in accordance with legal and other requirements

Underpinning Knowledge

UK1   WSH legal and other requirements applicable to control measures <Analysis>

UK2 Components of a risk control strategy <Analysis>

UK3 Application of the risk control strategy to the design of control measures <Application>

UK4 Safe work procedures <Analysis>

UK5   Stakeholders' factors for consideration on acceptable and reasonably practicable control measures <Analysis>

UK6   Existing and additional control measures <Analysis>

UK7   Components of a WSH control measures implementation plan <Application>

UK8 Roles and responsibilities of personnel in implementing WSH control measures <Application>

UK9 Means of communications to stakeholders relevant to WSH control measures <Comprehension>

UK10 Types of risk assessment documentation <Application>

C4 Manage WSH Risks

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	✓	✓	✓

Performance Statements

PS1   Formulate the risk management plan in accordance to the legal and other requirements

PS2   Establish the method of monitoring the implementation of risk management plan

PS3   Identify deviations from the risk management plan and propose appropriate corrective actions

PS4   Evaluate effectiveness of implemented control measures to identify residual risks

PS5   Revise risk management plan for continual improvement

Underpinning Knowledge

UK1   Review criteria for risk management plan <Analysis>

UK2   Methods for monitoring implementation of risk management plan <Application>

UK3   Types of deviations from risk management plan <Analysis>

UK4   Causes and types of lapses in WSH control measures <Analysis>

UK5   Types of residual risks <Analysis>

UK6   Corrective actions for deviations from risk management plan <Application>

UK7   Procedures for monitoring effectiveness of risk management plan <Application>

C5 Develop a WSH Culture

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	-	-	✓

Performance Statements

PS1 Examine the organisation's WSH culture profile to determine strengths and areas of improvement

PS2 Develop a WSH culture programme based on the identified strengths and areas of improvement

PS3 Formulate a proposal for the organisation to adopt a WSH culture

PS4 Implement the proposed WSH Culture programme

PS5 Monitor the implementation in accordance with the programme specifications

Underpinning Knowledge

UK1 Attributes of a WSH CultureSAFE model <Analysis>

UK2 CultureSAFE Maturity Level <Application>

UK3 Process of WSH culture assessment <Comprehension>

UK4 Types of WSH culture enablers and barriers <Analysis>

UK5 Characteristics of WSH culture and climate <Analysis>

UK6 Types of resources for implementing a WSH culture programme <Application>

UK7 WSH culture strengths and areas for improvement <Application>

UK8 Process of developing a WSH culture building programme <Application>

UK9 Methods of monitoring the implementation of a WSH culture improvement programme <Application>

C6 Design and Implement Behavioural Safety Programme

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	-	✓	✓	-	-	✓

Performance Statements

PS1   Establish Behavioural Safety Programme (BSP) design parameters according to organizational needs

PS2   Develop a BSP according to the design parameters

PS3   Set up BSP steering and working committees according to organizational procedures and requirements

PS4   Managing BSP implementation according to the BSP specifications

PS5   Evaluate BSP performance outcomes to rectify performance gaps

Underpinning Knowledge

UK1   Characteristics of Behavioural Safety vs Traditional Safety <Comprehension>

UK2   BSP design parameters <Analysis>

UK3   Organizational readiness study methodologies <Application>

UK4   Types of at-risk and critical behaviours that cause accidents and incidents at the workplace <Analysis>

UK5   Modes and frequency of data collection <Application>

UK6   Roles, responsibilities and training of BSP Steering Committee <Comprehension>

UK7   Roles, responsibilities and training of BSP Working Committee <Comprehension>

UK8   List of relevant stakeholders in BSP implementation <Application>

UK9   Types of data collected for analysis during BSP <Comprehension>

UK10 Types of BSP review techniques and tools <Application>

UK11 Types of BSP performance gaps <Analysis>

UK12 Types of corrective and preventive actions to rectify BSP performance gaps <Analysis>

C7 Establish and Review Emergency Preparedness and Response Plan

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	✓	✓	✓

Performance Statements

PS1   Conduct a hazard and vulnerability assessment to identify the types of emergency scenarios for preparedness and response planning relevant to the organization

PS2   Develop an organisational emergency preparedness and response plan to address the findings from the hazard and vulnerability assessment

PS3   Implement organisational emergency preparedness and response in accordance to the plan

PS4   Maintain the organizational emergency preparedness and response plan according to organisational needs

PS5   Review and recommend improvements to the organizational emergency preparedness and response plan according to organisational needs

Underpinning Knowledge

UK1   Legal and other requirements related to emergency preparedness <Application>

UK2   Process in conducting hazard and vulnerability assessment <Analysis>

UK3   Types of emergency scenarios <Analysis>

UK4   Formulation of emergency preparedness and response plans <Application>

UK5   Composition and competency of emergency response team <Application>

UK6   Roles and responsibilities of the emergency response team <Application>

UK7   Types of resources for emergency preparedness and response <Application>

UK8   Types of emergency preparedness and response training <Application>

UK9   Scope of emergency preparedness and response inspection <Application>

UK10 Data sources to evaluate improvements for emergency preparedness and response plan <Application>

UK11 Types of Emergency Response Procedures to be updated after review of emergency preparedness and response plan <Application>

C8 Establish and Manage WSH Incident Investigation and Analysis Processes

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
√	√	√	√	√	√	√	√

Performance Statements

PS1　Develop WSH incident investigation and analysis process for investigation and reporting of incidents

PS2　Manage the WSH incident investigation and analysis in accordance with organisational procedures

PS3　Analyse the root cause(s) and recommend appropriate corrective and preventive actions (CAPA) to prevent WSH incident recurrence

PS4　Evaluate effectiveness and recommend improvements to the WSH incident investigation and analysis process based on identified gaps

Underpinning Knowledge

UK1　Relevant legal and other requirements for incident investigation, analysis and report <Application>

UK2　Appropriate actions for compliance with legal requirements and other requirements for incident investigation <Analysis>

UK3　Types of incidents for investigation <Application>

UK4　Types of resources required in developing WSH incident investigation and analysis processes <Application>

UK5　Relevant stakeholders required for consultation in developing WSH investigation and analysis process <Application>

UK6　Composition and competency of WSH investigation team <Application>

UK7　Measures in setting up site securities to ensure integrity of evidence <Application>

UK8　Types of WSH incident investigation tools <Application>

UK9　Effective interview techniques <Application>

UK10 Types of WSH incident analysis tools <Application>

UK11 WSH incident corrective and preventive actions (CAPA) <Comprehension>

UK12 Data to be included in WSH incident investigation and analysis report <Synthesis>

C9 Establish Measurement and Monitoring of WSH Performance

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	-	-	✓

Performance Statements

PS1　Establish the WSH performance measurement parameters based on relevant requirements and purpose

PS2　Review current WSH performance data against WSH standard conditions and practices from legal and other requirements

PS3　Determine WSH conditions and practices to be monitored based on organisational needs and the parameters for WSH performance.

PS4　Develop a WSH performance monitoring plan for WSH performance data collection and analysis in accordance with regulatory and other requirements.

PS5　Implement WSH performance monitoring plan in accordance with organisational requirements

PS6　Recommend appropriate intervention strategies based on monitoring results.

Underpinning Knowledge

UK1　Guidelines relevant to WSH performance measurement <Application>

UK2　WSH performance indicators <Application>

UK3　Measurement criteria for WSH performance measurement <Application>

UK4　Cost of incidents <Application>

UK5　Collection of data <Application>

UK6　WSH conditions and practices to be monitored <Application>

UK7　Selection criteria for WSH performance monitoring team <Comprehension>

UK8　WSH performance monitoring plan <Analysis>

UK9　Basic reporting on WSH performance <Analysis>

UK10 Stakeholders in WSH performance reporting <Application>

UK11 Analysis of WSH performance data <Application>

UK12 Intervention strategies to reduce WSH risks <Comprehension>

C10 Manage Internal WSH Management System Audit

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	✓	✓	✓

Performance Statements

PS1   Develop the WSH internal audit protocol in accordance with applicable legal and other requirements

PS2   Conduct WSH internal audit according to protocol

PS3   Communicate WSH internal audit findings to highlight gaps in the organization's WSH management system

PS4   Recommend corrective and preventive actions (CAPA) based on WSH internal audit findings and consultation with relevant stakeholders

PS5   Submit an internal audit report based on organisational requirements

PS6   Monitor and evaluate effectiveness of the follow-up Action Plan in accordance to organisational procedures

Underpinning Knowledge

UK1   Legal and other requirements relevant to audit and review of WSH management system

UK2   Roles and responsibilities of an audit team <Application>

UK3   Internal audit process <Application>

UK4   Internal audit report format <Application>

UK5   ConSASS protocol <Comprehension>

UK6   On-site audit plan <Application>

UK7 Key stakeholders in internal audit <Comprehension>

UK8 Types of in-house audit analysis tools <Application>

UK9 Audit trail techniques <Application>

UK10 On-site audit schedule <Application>

UK11 Types of internal audit findings <Analysis>

UK12 Examples of gaps in the organization's WSH Management System <Analysis>

UK13 Written internal audit report <Synthesis>

UK14   Methods of monitoring and evaluation <Application>

UK15 Follow up Action Plan <Synthesis>

C11 Lead Workplace Communication and Engagement (ES WSQ)							
Recommended Delivery Methods							
Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	-	-	-
Performance Statements							
Refer to Competency Standard "Lead Workplace Communication and Engagement" (ES-IP-401G-2) for Performance Statements							
Underpinning Knowledge							
Refer to Competency Standard "Lead Workplace Communication and Engagement" (ES-IP-401G-2) for Underpinning Knowledge							

C12 Compose Technical Report (OHP WSQ)

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	-	✓	-	-	-	-

Performance Statements

Refer to Competency Standard "Compose Technical Report" (OH-NT-501C-1) for Performance Statements

Underpinning Knowledge

Refer to Competency Standard "Compose Technical Report" (OH-NT-501C-1) for Underpinning Knowledge

C13 Develop a WSH Management System

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	-	✓	-	-	-	-

Performance Statements

PS1   Establish a Workplace Safety and Health Management System (WSH MS) in accordance with the organisational and WSH legal requirements

PS2   Design the components of a WSH Management System in accordance with the organisational and WSH legal requirements

PS3   Integrate the elements of the WSH MS into a holistic system to meet the organisational and other requirements

Underpinning Knowledge

UK1   Elements of the WSH Management System <Application>

UK2   Essential WSH legislations and other requirements <Application>

UK3   Code of Practice on WSH Risk Management <Application>

UK4   Mandatory incident reporting requirements <Comprehension>

UK5   List of high-risk activities requiring Permit-to-Work (PTW) <Application>

E1 Manage WSH in Construction Industry

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	✓	✓	✓

Performance Statements

PS1   Identify WSH hazards and assess the risks of key trades and daily work activities in the construction industry in accordance to organisational procedures and legal requirements

PS2   Develop the control measures to address the WSH hazards and risks identified

PS3   Formulate implementation plan in accordance to the organizational Risk Management Plan

PS4   Communicate WSH hazards and risks, proposed control measures and implementation plan to relevant stakeholders

PS5   Monitor the implementation of control measures in daily work activities

PS6   Report to management on the status of the implementation plan

Underpinning Knowledge

UK1   Key types of trades and working environment in the construction industry <Application>

UK2   Applicable WSH legal and other requirements for the construction industry <Application>

UK3   Types of WSH hazards and risks in the construction industry <Analysis>

UK4   Control measures to address hazards and risks in the construction industry <Analysis>

UK5   Relevant stakeholders <Application>

UK6   WSH training for construction industry <Application>

UK7   Methods of monitoring the implementation of control measures <Application>

UK8   Status report of an implementation plan <Application>

E2 Manage WSH in Chemical, Process, Pharmaceutical Industries and Laboratories

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
√	√	√	√	√	√	√	√

Performance Statements

PS1 Identify WSH hazards and assess risks of key trades and daily work activities associated with the industry in accordance to organisational procedures and legal requirements

PS2 Develop the control measures to address the WSH hazards and risks

PS3 Formulate implementation plan in accordance to the organizational Risk Management Plan

PS4 Communicate WSH hazards and risks, proposed control measures and implementation plan to relevant stakeholders

PS5 Monitor the implementation of control measures in daily work activities

PS6 Report to management on the status of the implementation plan

Underpinning Knowledge

UK1 Key operations and daily work activities in the chemical, process, pharmaceutical industries and laboratories <Application>

UK2 Applicable WSH legal and other requirements for the chemical, process, pharmaceutical industries and laboratories <Application

UK3 WSH hazards and risks associated with chemical, process, pharmaceutical industries and laboratories <Analysis>

UK4 Types of exposures to health hazards <Analysis>

UK5 Control measures for the chemical, process, pharmaceutical industries and laboratories <Analysis>

UK6 Management of chemical hazards <Application>

UK7 Management of biological hazards <Application>

UK8 Management of radiation hazards <Application>

UK9 Management of general laboratory safety and health <Application>

UK10 Management of compliance issues <Application>

UK11 Operational control of fire and explosion <Application>

UK12 Control measures for working at heights <Analysis>

UK13 Relevant stakeholders <Application>

UK14 Methods of monitoring the implementation of control measures <Application>

UK15 Status report of an implementation plan <Application>

E3 Manage WSH in Manufacturing Industry

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	✓	✓	✓

Performance Statements

PS1　Identify WSH hazards (including fire hazards) and assess the risks in accordance to organisational procedures and legal requirements

PS2　Develop the control measures to address the WSH hazards and risks identified

PS3　Formulate implementation plan in accordance to the organizational Risk Management Plan

PS4　Communicate WSH hazards and risks, proposed control measures and implementation plan to relevant stakeholders

PS5　Monitor implementation of the control measures in daily activities

PS6　Report to management on the status of the implementation plan

Underpinning Knowledge

UK1　WSH legal and other requirements relating to the manufacturing industry <Application>

UK2　WSH hazards (including fire hazards) and risks associated in the manufacturing industry <Analysis>

UK3　Fire hazards and risks control measures <Analysis>

UK4　Flammable substances control measures <Application>

UK5　Ignition sources control measures <Application>

UK6　Safe storage and transport conditions of flammable substance <Application>

UK7　Control measures for fire risks in manufacturing industry <Analysis>

UK8　Relevant stakeholders <Application>

UK9　Type of fire extinguishers <Application>

UK10 Types of fire suppression systems <Application>

UK11 Types of fire detection systems <Application>

UK12 Methods of monitoring the implementation of control measures <Application>

UK13 Status report of an implementation plan <Application>

E4 Manage WSH in Service Industry

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	✓	✓	✓

Performance Statements

PS1   Identify WSH hazards and assess the risks of key types of business operations and working environment in the service industry in accordance to organisational procedures and legal requirements

PS2   Develop the control measures to address the WSH hazards and risks

PS3   Formulate implementation plan in accordance to the organizational Risk Management Plan

PS4   Communicate WSH hazards and risks, proposed control measures and implementation plan to relevant stakeholders

PS5   Monitor implementation of the control measures in daily activities

PS6   Report to management on the status of the implementation plan

Underpinning Knowledge

UK1   Key types of business operations and working environment in the service industry <Application>

UK2   Types of higher risk occupations in service industry <Application>

UK3   WSH legal and other requirements for the service industry <Application>

UK4   WSH hazards and risks relating to working in service industry <Analysis>

UK5   Control measures to address WSH hazards and risks associated with working in service industry <Application>

UK6   Guidelines for sitting posture evaluation <Application>

UK7   Guidelines for tools and equipment evaluation <Application>

UK8   Manual handling risk evaluation <Application>

UK9   Methods for evaluating poor posture <Application>

UK10 Effects of shift work on workers <Application>

UK11 Relevant stakeholders <Application>

UK12 Methods of monitoring the implementation of control measures <Application>

UK13 Status report of an implementation plan <Application>

E5 Manage WSH in Marine Industry

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	✓	✓	✓

Performance Statements

PS1　Identify WSH hazards and asses the risks of key trades and working environment in the marine industry in accordance to organisational procedures and legal requirements

PS2　Develop the control measures to address the WSH hazards and risks associated to the marine industry

PS3　Formulate implementation plan in accordance to the organizational Risk Management Plan

PS4　Communicate WSH hazards and risks, proposed control measures and implementation plan to relevant stakeholders

PS5　Monitor implementation of the control measures in daily activities

PS6　Report to management on the status of the implementation plan

Underpinning Knowledge

UK1　Types of trades and working environment in the marine industry <Application>

UK2　Applicable WSH legal and other requirements for the marine industry <Application>

UK3　WSH hazards and risks in the marine industry <Analysis>

UK4　Control measures for key trades in the marine industry <Analysis>

UK5　Mandatory WSH training for marine industry <Application>

UK6　Relevant stakeholders <Application>

UK7　Methods of monitoring the implementation of control measures <Application>

UK8　Status report of an implementation plan <Application>

E6 Establish Environmental Management System

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	-	✓	✓	-	-	✓

Performance Statements

PS1   Conduct an initial review (Needs Analysis) to establish the organizational needs with regards to environmental management

PS2   Formulate the Environmental Management System (EMS) policy, objectives and framework according to requirements and specifications

PS3   Develop, and advise stakeholders on, the appropriate actions to be taken by the organization for compliance

PS4   Develop the EMS implementation plan according to requirements and organisational needs

PS5   Maintain EMS documentation according to requirements and specifications

PS6   Maintain the EMS to meet requirements continually

Underpinning Knowledge

UK1   Initial review (Needs Analysis) process and procedure <Application>

UK2   Elements of ISO 14001 Environmental Management System <Application>

UK3   Legal and other requirements relating to the EMS <Application>

UK4   Environment related government agencies <Application>

UK5   EMS related licenses and permits <Application>

UK6   Scope of EMS implementation <Application>

UK7   EMS documentation and data control <Synthesis>

UK8   EMS certification process <Comprehension>

E7 Develop a Business Case for WSH

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	-	-	✓

Performance Statements

PS1   Establish the organisational WSH need in relation to business needs and organisational business planning cycle

PS2   Shortlist viable recommendations to meet the organisational WSH need

PS3   Analyse the business aspects of the shortlisted recommendations to address decision makers' business needs

PS4   Formulate a strategy to communicate the business case to decision makers

Underpinning Knowledge

UK1   Decision makers in the organization <comprehension>

UK2   Business and WSH needs <Analysis>

UK3   Business Planning Cycle <Application>

UK4   Types of business-related evaluation techniques <Application> >

UK5   Evaluation criteria to shortlist viable business recommendations <Application>

UK6   Types and sources of input and information required for evaluation <Application>

UK7   Format of a business case <Application>

UK8   Source of different perspectives and decision-making styles of various decision makers <Analysis>

E8 Apply Human Factors in Job Design

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	✓	-	✓

Performance Statements

PS1   Analyse current job functions in accordance with organizational objectives and performance specifications

PS2   Identify human needs and errors related to the job function in accordance with organisational requirements.

PS3   Design job content and systems to address relevant human needs and errors .

PS4   Manage the implementation of the job re-design

PS5   Evaluate the effects of safety and health outcome of the job redesign

Underpinning Knowledge

UK1   Elements of job functions <Application>

UK2   Objectives of job function analysis <Comprehension>

UK3   Approaches to job function analysis <Comprehension>

UK4   Human needs and errors in job functions <Analysis>

UK5   Human Factor Analysis and Classification System (HFACS) <Application>

UK6   Methods of identifying human needs and errors in job performance <Application>

UK7   Safety and health outcome of job re-design <Analysis>

UK8   Types of support materials for redesigned jobs <Application>

UK9   Process to review and evaluate safety and health outcome of job re-design <Application>

E9 Manage Financial Resources for WSH

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	✓	-	✓

Performance Statements

PS1　Analyse WSH risk exposure to identify the associated cost to the organization

PS2　Select and recommend reasonably practicable risk control measures for reducing WSH risks in projects

PS3　Quantify the risk control measures and other measures in budgetary terms according to General Accepted Accounting Principles (GAAP)

PS4　Prepare a written WSH budget with justification for approval by the relevant stakeholders

PS5　Monitor and review the WSH expenditure on a regular basis

Underpinning Knowledge

UK1　Types of WSH risk exposure <Analysis>

UK2　Estimation of loss exposure dimensions <Analysis>

UK3　Areas that may lead to optimisation of WSH benefits in projects <Analysis>

UK4　Types of risk control measures and other measures in WSH financial budgeting <Analysis>

UK5　General Accepted Accounting Principles <Application>

UK6　Types of WSH expenditures <Application>

UK7　Key stakeholders in WSH financial management <Comprehension>

UK8　Components of a WSH budget <Application>

UK9　Interpretation of balance sheets <Analysis>

E10 Plan, Prepare and Deliver Presentations

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	-	✓	-	-

Performance Statements

PS1   Establish the target audience profile, objectives and key issues for the presentation

PS2   Prepare a structured presentation plan to address the objectives and key issues

PS3   Set up the resources for the presentation

PS4   Deliver the presentation with clarity and manage dynamic context during presentation.

PS5   Address concerns and receive feedback in a positive manner

PS6   Follow up with the necessary action

Underpinning Knowledge

UK1   Target audience profiles <Analysis>

UK2   Stakeholders <Application>

UK3   Elements of a structured presentation plan <Application>

UK4   Resources for a presentation <Application>

UK5 Personal and professional grooming tips for presentation <Application>

UK6 Appropriate use of body language in delivering presentation <Analysis>

UK7 Voice projection technique <Application>

UK8 Techniques for effective introduction <Application>

UK9   Techniques for handling difficult questions <Application>

UK10 Time management techniques <Comprehension>

UK11 Types of contingencies during a presentation <Application>

E11 Develop a Work Team (ES WSQ)

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	-	-	-

Performance Statements

Refer to Competency Standard "Develop a Work Team" (ES-IP-402G-1) for Performance Statements

Underpinning Knowledge

Refer to Competency Standard "Develop a Work Team" (ES-IP-402G-1) for Underpinning Knowledge

E12 Solve Problems and Make Decision at Managerial Level (ES WSQ)

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	-	-	-

Performance Statements

Refer to Competency Standard "Solve Problems and Make Decision at Managerial Level" (ES-ACE-402G-1) for Performance Statements

Underpinning Knowledge

Refer to Competency Standard "Solve Problems and Make Decision at Managerial Level" (ES-ACE-402G-1) for Underpinning Knowledge

E13 Support the Establishment of an Initiative and Enterprise Framework (ES WSQ)

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	-	-	-

Performance Statements

Refer to Competency Standard "Support the Establishment of an Initiative and Enterprise Framework" (ES-ACE-401G-1) for Performance Statements

Underpinning Knowledge

Refer to Competency Standard "Support the Establishment of an Initiative and Enterprise Framework" (ES-ACE-401G-1) for Underpinning Knowledge

E14 Manage Cross Functional and Culturally Diverse Team (ES WSQ)

Recommended Delivery Methods

Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	-	-	-

Performance Statements

Refer to Competency Standard "Manage Cross Functional and Culturally Diverse Team" (ES-IP-501G-1) for Performance Statements

Underpinning Knowledge

Refer to Competency Standard "Manage Cross Functional and Culturally Diverse Team" (ES-IP-501G-1) for Underpinning Knowledge

E15 Prepare and Facilitate Classroom Training (TAE Framework)							
Recommended Delivery Methods							
Lecture/ Presentation	Pair-Share/ Discussion	Role Play	Written Exercise\ Assignment	Case Study	Demonstration cum Practice	Site Visits	Use of Social Media and Internet
✓	✓	✓	✓	✓	-	-	-
Performance Statements							
Refer to Competency Standard "Prepare and Facilitate Classroom Training" (TR-TDL-304C-1) for Performance Statements							
Underpinning Knowledge							
Refer to Competency Standard "Prepare and Facilitate Classroom Training" (TR-TDL-304C-1) for Underpinning Knowledge							

5 Key Assessment Advice

5.1 Assessment Principles

The fundamental principal in Competency Based Assessment (CBA) is to **assess what you train, and train what you are going to assess**. In CBA, there is a need to collect evidence and make judgments on whether or not the individual has achieved the required competence. This is done through the assessment plan. The plan will be based on four principles of assessment which includes:

VALIDITY - A valid assessment plan assesses what it claims to assess; evidence collected is relevant to the activity and demonstrates that the performance criteria have been met. Therefore the assessment plan takes into account several factors:

- assessment activities are reflective of all the competency elements and all the performance criteria of the competency units covered
- assessment should integrate knowledge, skills and attitude with practical application
- evidence should be gathered not just on one assessment but on a number of occasions and in a range of contexts, using different assessment methods

RELIABILITY - Reliability means there must be consistency in the interpretation of evidence and the consistency of assessment outcomes by different assessors. Reliability can only be achieved when assessors share a common interpretation of the competency units assessed. The factors that contribute to reliability include:

- criteria for the judgment of competence must be stated clearly and adhered to
- assessors must be experienced and share a common set of assessment norms
- instructions on how assessments should be undertaken and carried out should be clearly spelt out and documented within the ATO
- monitoring and regular review of the assessment plan should be carried out to ensure consistency (yearly review is recommended)

FLEXIBILITY - Flexibility in assessment allows for assessment either on or off the job and at mutually convenient time and situation. A flexible assessment plan

- recognize competencies no matter how, where or when they have been acquired

- includes a range of applications appropriate to the context, task and trainee background
- is made accessible to learners so that they can proceed readily from one competency unit to another
- applies to the process – not the competency standard.

FAIRNESS - A fair assessment will not disadvantage any trainee and will take into account the characteristics of the learner being assessed. To maintain fairness:

- reasonable adjustments are made to assessment procedures depending on the characteristics of the learner being assessed
- assessment procedures and the evidence must be made clear
- a consultative approach to assessment of a competency against one or all of the units in the Standards is recommended
- learners being assessed against the Standards must have the opportunity for a review and an appeal of assessment decisions

5.2   Assessment Plan

The purpose of an assessment plan is to guide the process of collecting and documenting evidence systematically so that it may be used by the ATO to make a judgement as to whether a candidate has achieved the level of competency specified in the competency standard(s).

An assessment plan may take many forms but it is usually prepared with a number of key features:

- Assessment overview
- Summary of the assessment methods and instruments
- Matrix of assessment methods
- Evidence Gathering Plan (EGP)
- Assessment specifications
- Assessment summary record

It is the responsibility of the ATO to ensure that assessment plan is prepared in accordance with the context of the assessment. This will include making due considerations for the following:

- Organizational requirements such as in-house Standard Operating Procedures (SOPs), company policy and procedures,
- Physical factors such as on-site limitations, availability of space and equipment
- Safety requirements such as personal protective equipment, work-at-height requirements, confined spaces

- Ethical requirements such as no physical contact, privacy of information, intellectual property
- Industry regulations and Code of Practice
- Licensing requirements
- Environmental requirements

The Assessment Plan for the SD WSH must comprise three components:

- **PART I - Assessment deliverables for EACH** Core Competency Unit and Electives – *See detail assessment deliverables for each competency unit shown below*

- **PART II** - A **written document of an organisational WSH Management System** to be handed in after the completion of the 13 Core competency units and 3 electives – *See C13 below*

- **PART III** - An integrated **closed-book written assessment** covering the following critical knowledge areas that a WSH Officer is expected to know by heart

5.3 Assessment Strategies

ATOs may use a number of different assessment methods in their assessment plan to determine the appropriate assessment strategy for the respective performance statements and underpinning knowledge to collect the evidence required. Some of these assessment methods may include:

Assessment Methods		Form of Evidence Gathering
Actual work performance at the real or simulated condition at the workplace		Direct Evidence Collection
• Oral Questioning • Written Test • Face-to-face Interview • Oral Presentation • Case Studies	• Role Play • Practical Performance • Individual Project Assignment	Indirect Evidence Collection
• Competency Record Book • References • Testimonials • Portfolio • Awards • Feedback forms • Reflective Journal • Discussion with workplace	• Performance Appraisal • Video Recordings of past work • Work Reports from supervisor or manager • Third Party (client) Reports and Feedbacks • Certificate of Attendance at	Supplementary Evidence

supervisor	training	

For ease of reference, a detail summary of assessment methods and instruments is provided at the front of the assessment plan (See Annex A).

It is recommended that the assessment strategy for ATOs should involve the line managers in signing off their candidates' completed work. This will enable the line managers to determine the readiness of the candidates in performing the job on-site.

The number of attempts a candidate is allowed to be assessed is **TWO**. If the candidate is still certified "**NOT YET COMPETENT**", the candidate must be re-coursed for the Module.

Industry Requirements

The Specialist Diploma in WSH qualification CANNOT be awarded without successful completion of the final core unit, "Develop a WSH Management System", and the two mandatory assessments:

- A written document of an organisational WSH Management
- An integrated closed-book written assessment

ATOs are encouraged to refer to the checklists suggested in the Annexes as tools for organising assessments for performance statements and underpinning knowledge.

Passing Marks for Written Tests

ATO may choose to design written assessment papers based on a minimum passing mark. The rationale for allowing a passing mark is to allow deeper assessment of knowledge, while allowing a reasonable margin of error to accommodate the possibility of mistakes when assessing in such depth.

ATOs who opt for a scoring system in written assessments (closed- or open-book) must take note of the following:

- This option is open to written assessments only, and only applicable to Competency Units within the WSH Professionals WSQ framework with CU codes starting with "WP02". The passing mark option may NOT be applied to imported units from other WSQ frameworks into the qualifications.
- ATOs must follow the recommended minimum score be deemed to be competent. The minimum score required in each unit is specified in the "Assessment Deliverables for each Competency Unit" in the pages that follow**.**
- All PS and UK MUST be assessed as 'Competent' to be deemed to competent in the unit.

- Example 1: An ATO sets 10 written questions based on UK1: "Relevant WSH legal and other requirements" to assess candidates' knowledge of WSH legislation from various angles. The candidate may still be assessed as "Competent" if he answers two questions wrongly (i.e. 8 correct out of 10 questions = 80% correct).
- Example 2: ATO designs a case study, consisting of 5 questions, to assess 4 UKs collectively (each of the questions touch on certain aspects of the UKs assessed). Candidates must correctly answer 4 out of the 5 (80%) in order to be deemed competent in all 4 UKs.

- ATOs may adopt the passing mark for selected questions only in a single paper.
  - Example: UK1: "Relevant WSH legal and other requirements" entails a wide scope, so the ATO sets 5 questions on this UK, and adopts the passing mark of 80% to assess this UK. However, UK6: "Common Safety Signs" is more straightforward and entails a smaller scope, so the ATO only sets 2 questions on this UK in the same test paper, and requires 100% (both questions must be answered correctly) to be assessed "Competent" in this question.

5.4 Matrix of Assessment Methods and Deliverables

The following are the matrix of recommended assessment methods and assessment deliverables in terms of knowledge and process for each competency unit:

Assessment Methods

No	Competency Unit Title	Assessment Hours	Role Play	Case Study	Written Test	Individual Work Assignment	Practical Performance with Oral Test
Compulsory Core Units							
C1	Establish WSH Policy and Advise on WSH Legal Compliance Issues	4	✓	✓	✓	-	-
C2	Identify WSH Hazards and Assess WSH Risks	4	✓	✓	✓	-	✓
C3	Recommend WSH Control Measures	4	✓	✓	✓	-	✓
C4	Manage WSH Risks	4	✓	✓	✓	-	✓
C5	Develop a WSH Culture	2	✓	✓	✓	-	-
C6	Design and Implement Behavioural Safety Programme	2	-	✓	✓	-	-
C7	Establish and Review Emergency Preparedness and Response Plan	4	✓	✓	✓	-	✓
C8	Establish and Manage WSH Incident Investigation and Analysis Process	4	✓	✓	✓	-	-
C9	Establish Measurement and Monitoring of WSH Performance	2	✓	✓	✓	-	-
C10	Manage Internal WSH Management System Audit	4	✓	✓	✓	-	✓
C11	Lead Workplace Communication and Engagement (ES WSQ)	4	✓	✓	✓	-	-
C12	Compose Technical Report (OHP WSQ)	0.5	-	-	✓	✓	-
C13	Develop a WSH Management System[1]	4	-	-	✓	✓	✓
Elective Units							
E1	Manage WSH in Construction Industry	4	✓	✓	✓	✓	✓
E2	Manage WSH in Chemical, Process, Pharmaceutical Industries and Laboratories	4	✓	✓	✓	✓	✓
E3	Manage WSH in Manufacturing Industry	4	✓	✓	✓	✓	✓

No	Competency Unit Title	Assessment Hours	Role Play	Case Study	Written Test	Individual Work Assignment	Practical Performance with Oral Test
E4	Manage WSH in Service Industry	4	✓	✓	✓	✓	✓
E5	Manage WSH in Marine Industry	4	✓	✓	✓	✓	✓
E6	Establish Environmental Management System	4	-	✓	✓	✓	-
E7	Develop a Business Case for WSH	4	✓	-	✓	✓	-
E8	Apply Human Factors in Job Design	4	✓	✓	✓	✓	✓
E9	Manage Financial Resources for WSH	4	✓	✓	✓	✓	-
E10	Plan, Prepare and Deliver Presentations	4	✓	-	✓	✓	-
E11	Develop a Work Team (ES WSQ)	4	✓	✓	✓	-	-
E12	Solve Problems and Make Decision at Managerial Level (ES WSQ)	4	✓	✓	✓	-	-
E13	Support the Establishment of an Initiative and Enterprise Framework (ES WSQ)	4	✓	✓	✓	-	-
E14	Manage Cross Functional and Culturally Diverse Team (ES WSQ)	4	✓	✓	✓	-	-
E15	Prepare and Facilitate Classroom Training (TAE Framework)	4	✓	✓	✓	-	-

Note: 1 – Written Test for "Develop a WSH Management System "is a Closed Book Written Assessment

Note: The above assessment methods for ES WSQ units are recommended within the context of offering the units as part of the Specialist Diploma in WSH qualification. Refer to the Employability Skills WSQ Curriculum, Training and Assessment Guide for more details on the recommended assessment methods for ES WSQ units.

PART I - Assessment Deliverables for each competency unit

C1 Establish WSH Policy and Advise on WSH Legal Compliance Issues
Product

- A written WSH policy document to include:
  - WSH policy statement
  - WSH objectives
  - WSH organisation structure
  - Procedure for keeping stakeholders updated on new and amended WSH legal and other requirements
  - Procedure for reviewing WSH policy and objectives documentation
- An organisation-wide programme

Process

- Present to management the organisational WSH policy, objectives, structure and procedures in relation to the internal and external factors that were taken into consideration
- Analyse gaps in WSH legal compliance in the organisation and recommend corrective and preventive actions
- Explain the methods to monitor progress towards achieving WSH policy and objectives

Knowledge (Open-Book Assessment)

- Factors that may influence the organisation's WSH policy and objectives
- Relevant stakeholders for clarification of WSH legal and other requirements
- Applicable WSH legal and other requirements on WSH policy and objectives
- Types of advice on compliance with WSH legal and other requirements
- Considerations in developing WSH organisational structure
- Types of Organisational wide programmes for WSH
- Means of updating new and amended WSH legal and other requirements
- Process for review of WSH policy and objectives
- Types of information required for review of WSH policy and objectives

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

C2 Identify WSH Hazards and Assess WSH Risks

Product

- A written document comprising of:
    - Risk management team
    - Scope of risk assessment and risk assessment team assigned
    - Inventory of routine and non-routine work activities for a process
    - Hazard identification and risk evaluation of a process
    - Methodology of risk evaluation used

Process

- Explain the scope of risk assessment and relate the information of the risk assessment teams assigned to each scope
- Explain how the relevant data have been considered in the hazard identification and risk evaluation

Knowledge (Open-Book Assessment)

- WSH Legal and other requirements relevant to risk management
- Risk Management Plan
- Information relevant to risk assessment
- Types and impacts of WSH hazards
- Methods of hazard identification
- Methods of risk evaluation
- Types of risk assessment records

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

C3 Recommend WSH Control Measures

Product

- Written control measures documents that includes:
  - Safe work procedures
  - Control measures installed
  - Steps to be taken for control measures
  - Maintenance and review requirements
  - Updates of :
    - Risk register
    - Safe work procedures, including those at other areas affected by the added control measures
    - Operation records
    - Maintenance records
    - Training records
- Control measures implementation plan documenting:
  - Action to be taken
  - Schedule
  - Responsible person for carrying out the action item
  - Prioritisation of action items
  - Period and criteria for review on effectiveness of control measures
  - Resources required

Process

- Present recommended control measures based on the hierarchy of control
- Present a WSH control measures implementation plan to stakeholders

Knowledge (Open-Book Assessment)

- WSH Legal and other requirements relevant to control measures
- Risk control strategy
- Hierarchy of control
- Components of an implementation plan
- Roles and responsibilities of personnel for control measures
- Types of control measure documents

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

C4 Manage WSH Risks

Product

- Written Risk Management Plan
  - Scope of the risk management
  - Risk management team
  - Scope of risk assessment and risk assessment team assigned
  - Inventory of work activities
  - Methodology of risk evaluation used
  - Hazard identification methodology
  - Risk evaluation methodology
  - Risk control methodology
  - Implementation of risk control measures
  - Communication process to relevant stakeholders
  - Record-keeping procedures

Process

- Explain the implementation of the risk management plan
- Highlight deviations, lapses and residual risks
- Present proposed preventive actions
- Explain evaluation criteria for effectiveness of risk management plan

Knowledge (Open-Book Assessment)

- Procedures of monitoring implementation of control measures
- Types of deviations from implementation plan
- Appropriate corrective measures for deviations
- Causes and types of lapses
- Types of residual risk
- Evaluation criteria for effectiveness of control measures
- Procedures for monitoring effectiveness of control measures
- Types of information in the evaluation report

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

C5 Develop a WSH Culture

Product

- Proposal on WSH culture programme based on the CultureSAFE Model, covering:
  - Attributes of the organisation's WSH culture profile
  - Justification for introducing WSH culture programme
  - Measureable goals and targets
  - Programmes and activities
  - Implementation timeline
  - Resource allocation
  - Roles and responsibilities
  - Review methods and frequency

Process

- Determine the organisation's WSH culture strengths and areas for improvement from the WSH culture profile
- Explain the implementation of the proposed WSH culture programme

Knowledge (Open-Book Assessment)

- Attributes of a WSH CultureSAFE
- CultureSAFE Maturity level
- Process of developing a WSH culture building programme
- Types of organisational culture enablers and barriers
- Characteristics of organisational culture and climate

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

C6 Design and Implement Behavioural Safety Programme

Product

- Behavioural Safety Programme (BSP)

Process

- Conduct of behaviour observation
- Manage implementation of BSP
- Identify BSP performance gaps
- Recommend to close BSP performance gaps

Knowledge (Open-Book Assessment)

- Characteristics of Behavioural Safety vs Traditional Safety
- BSP design parameters
- Types of organisational readiness study methodologies
- Types of at-risk and critical behaviours at the workplace
- Roles, responsibilities and required training for BSP Steering Committee and Working Committee
- Types of data collected for analysis during BSP
- Types of BSP review techniques and tools
- Types of BSP performance gaps
- Types of BSP corrective and preventive actions

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

C7 Establish and Review Emergency Preparedness and Response Plan
Product
- Write an Emergency Preparedness and Response Plan   - Maintain the required documentations and records
Process
- Conduct a hazard and vulnerability assessment to identify the type of emergency scenarios for preparedness and response planning   - Prepare and conduct an emergency response drill
Knowledge (Open-Book Assessment)
- Legal and other requirements related to emergency preparedness   - Hazard and vulnerability assessment   - Types of emergency scenarios   - Emergency preparedness and response plan   - Composition and competency of emergency response team   - Roles and responsibilities of the emergency preparedness and response team   - Types of resources for emergency preparedness and response   - Types of Emergency preparedness and response training   - Areas of Emergency preparedness and response inspection   - Data source to evaluate improvements for emergency preparedness and response plan   - Emergency Response Procedures   NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

C8 Establish and Manage WSH Incident Investigation and Analysis Processes

Product

- SOP for investigating and reporting of incidents within an organisation
- A WSH incident investigation and analysis report

Process

- Review and explain the investigation and reporting process
- Analyse the root causes of the incident and recommend measures to prevent the recurrence of a similar incident
- Explain the procedures for securing an incident scene
- Explain the procedure for safeguarding the integrity of evidence
- Demonstrate an effective interview technique

Knowledge (Open-Book Assessment)

- Legal and other requirements for incident investigation, analysis and report
- WSH Incident investigation and analysis processes and procedures
- Relevant stakeholders required for investigation and analysis of incidents
- Critical elements of WSH incident investigation and analysis processes
- WSH incident investigation processes
- Methods of collecting objective evidence
- Types of incidents
- Types of incident analysis tools
- Corrective and preventive actions (CAPA)
- Types of WSH incident investigation and analysis reviewing techniques and tools
- Ways to improve WSH incident investigation and analysis

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

C9 Establish Measurement and Monitoring of WSH Performance

Product

- WSH performance report
- Documented WSH monitoring plan

Process

- Conduct WSH performance data collection and hazard sampling
- Identify deviations of WSH standard conditions and practices through data analysis

Knowledge (Open-Book Assessment)

- Legislative requirements relevant to WSH performance measurement
- Types of WSH performance indicators
- Types of measurement criteria for WSH performance measurement
- Cost of incidents
- WSH conditions and practices to be monitored
- Selection criteria for WSH performance monitoring team
- Stakeholders In WSH Performance Reporting
- WSH performance monitoring and medical surveillance programmes
- Methods to analyse of WSH performance data
- Types of intervention strategies to reduce WSH risks

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

C10 Manage Internal WSH Management System Audit

Product

- A written internal audit protocol
- A written internal audit report

Process

- Present to a panel of stakeholders the audit plan and schedule
- Conduct a WSH internal audit
- Demonstrate audit trail techniques:
  - Trail identification techniques
  - Interview techniques
  - Document verification techniques
- Present the follow-up action plan

Knowledge (Open-Book Assessment)

- Checklist for WSH Management System
- Key personnel involved in internal audit
- Roles and responsibilities of an audit team
- Internal audit protocols (which may include ConSASS)
- Audit tools
- Audit trail techniques
- Types of internal audit findings
- Examples of gaps in the organisation's WSH Management System
- Methods of monitoring and evaluation

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

C11 Lead Workplace Communication and Engagement (ES WSQ)
Product
• Refer to Competency Standard "Lead Workplace Communication and Engagement" (ES-IP-401G-2) for Product Evidence
Process
• Refer to Competency Standard "Lead Workplace Communication and Engagement" (ES-IP-401G-2) for Process Evidence
Knowledge
• Refer to Competency Standard "Lead Workplace Communication and Engagement" (ES-IP-401G-2) for Knowledge Evidence

C12 Compose Technical Report (OHP WSQ)
Product
• Refer to Competency Standard "Compose Technical Report" (OH-NT-501C-1) for Product Evidence
Process
• Refer to Competency Standard "Compose Technical Report" (OH-NT-501C-1) for Process Evidence
Knowledge
• Refer to Competency Standard "Compose Technical Report" (OH-NT-501C-1) for Knowledge Evidence

E1 Manage WSH in Construction Industry

Product

- A hazard identification and risk assessment report with a recommendation of the control measures to address the hazards and risks of key trades and daily activities in the construction industry

Process

- Demonstrate how to identify hazards and assess risk at a construction project site
- Demonstrate how to monitor the implementation of control measures at a construction project site

Knowledge (Open-Book Assessment)

- Key trades and work environment in the construction industry
- Relevant WSH legal and other requirements for the construction industry
- WSH hazards and risks in construction projects
- Control measures for a construction project
- Relevant stakeholders
- WSH training for construction industry
- Methods for monitoring implementation of control measures

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

E2 Manage WSH in Chemical, Process, Pharmaceutical Industries and Laboratories

Product

- A hazard identification and risk assessment report with a recommendation of the control measures to address the hazards and risks in a chemical, process, pharmaceutical industry and laboratory

Process

- Demonstrate how to identify hazards and assess risk in a chemical, process, pharmaceutical industry and laboratory
- Demonstrate how to monitor the implementation of control measures in chemical, process, pharmaceutical industry and laboratory

Knowledge (Open-Book Assessment)

- Key operations and daily work in the chemical, process, pharmaceutical industries and laboratories
- WSH legal and other requirements for the chemical, process, pharmaceutical industries and laboratories
- WSH hazards and risks associated with chemical, process, pharmaceutical industries and laboratories
- Hazard identification and risk assessment methods
- Types of exposure to health hazards
- Control measures for the chemical, process, pharmaceutical industries and laboratories
- Control of fire and explosion
- Control measures for working at heights
- Management of chemical hazards
- Management of biological hazards
- Management of radiation hazards
- Management of general laboratory safety and health
- Management of compliance issues

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

E3 Manage WSH in Manufacturing Industry

Product

- A hazard identification and risk assessment report with a recommendation of the control measures to address the hazards and risks in the manufacturing industry

Process

- Demonstrate how to identify hazards and assess risk in the manufacturing industry
- Demonstrate how to monitor the implementation of control measures in the manufacturing industry

Knowledge (Open-Book Assessment)

- WSH legal and other requirements relating to the manufacturing industry
- WSH hazards (including fire hazards) and risks associated in the manufacturing industry
- Control measures for fire risks in manufacturing industry
- Hazard identification and risk assessment method
- Methods for monitoring implementation of control measures

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

E4 Manage WSH in Service Industry

Product

- A hazard identification and risk assessment report with a recommendation of the control measures to address the hazards and risks in the service industry

Process

- Demonstrate how to identify hazards and assess risk in the service industry
- Demonstrate how to monitor the implementation of control measures in the service industry

Knowledge (Open-Book Assessment)

- Types of business operations and working environment in the service industry
- Types of higher risk occupations in service industry
- WSH legal and other requirements for the service industry
- WSH hazards and risks relating to working in service industry
- Control measures to address WSH hazards and risks associated with working in service industry
- Guidelines for sitting posture evaluation
- Guidelines for tools and equipment evaluation
- Manual handling risk evaluation
- Methods for evaluating poor posture
- Effects of shift work on workers
- Methods of monitoring the implementation of control measures

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

E5 Manage WSH in Marine Industry

Product

- A hazard identification and risk assessment report with a recommendation of the control measures to address the hazards and risks in the marine industry

Process

- Demonstrate how to identify hazards and assess risk in the marine industry
- Demonstrate how to monitor the implementation of control measures in the marine industry

Knowledge (Open-Book Assessment)

- WSH legal and other requirements for the marine industry
- WSH hazards and risks in the marine industry
- Types of trades and working environment in the marine industry
- Control measures for key trades in the marine industry
- WSH training for marine industry
- Methods of monitoring the implementation of control measures

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

E6 Establish Environmental Management System

Product

- Policy, objectives and framework of an organization Environment Management System (EMS)
- EMS implementation plan

Process

- Conduct an Initial Review (Needs Analysis) for the design and development of an organization's EMS
- Present to the management on the actions you will take to implement EMS in the organization

Knowledge (Open-Book Assessment)

- Elements of the ISO 14001 Environmental Management System
- Primary and subsidiary legislations and other requirements relating to the environment
- EMS related licenses and permits
- EMS certification process
- EMS documentation and data control
- EMS-related training programmes

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

E7 Develop a Business Case for WSH

Product

- A written business case documenting:
    - Introduction
    - Executive summary
    - Description of current situation
    - WSH-related options considered
    - Urgency/criticality to meet WSH needs
    - Evaluation criteria
    - Cost and benefit of each option
    - Investment appraisal
    - Impact analysis
    - Conclusions and recommendations
    - Implementation timeline
    - Supporting appendices

Process

- Present a business case to decision makers on at least two WSH-related options

Knowledge (Open-Book Assessment)

- Decision makers in the organization
- Business needs
- Business planning cycle
- Evaluation criteria
- Types of evaluation techniques
- Types and sources of input and information required for evaluation
- Types of analysis techniques

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

E8 Apply Human Factors in Job Design

Product

- A written job function redesign report based on human factors to include:
  - Job performance specification
  - Description of job functions
  - Tabulation of human factor considerations (including errors) in relation to the job function
  - Job (re)design recommendations

Process

- Present the process of managing the implementation of the job re-design
- Evaluate the safety and health outcome of the job redesign

Knowledge (Open-Book Assessment)

- Objectives and approaches to job function analysis
- Methods of job function analysis
- Elements of job functions
- Types of human needs and errors in job functions
- Types of support materials for redesigned jobs
- Process to review and evaluate safety and health outcome of job design

NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

E9 Manage Financial Resources for WSH
Product
- A written WSH budget estimate with justification   - Report on WSH expenditures
Process
- Analyse the WSH risk exposures for an organization   - Recommend areas that will contribute to the optimisation of WSH benefits for the organization
Knowledge (Open-Book Assessment)
- Types of risk exposure   - Types of risk control measures   - Types of expenditures   - Loss exposure dimensions   - General Accepted Accounting Principles   - Elements of a balance sheets   NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

E10 Plan, Prepare and Deliver Presentations
Product
• A structured presentation plan
Process
• Prepare resources for presentation • Deliver a presentation Handle a question and answer session after the presentation
Knowledge (Open-Book Assessment)
• Target audience profiles • Elements of an effective presentation • Personal and professional grooming tips • Body language • Techniques for effective introduction • Time management NOTE: Candidates must attained a minimum score of 80% to be deemed to successfully completed the Open-Book Written Assessment.

E11 Develop a Work Team (ES WSQ)
Product
• Refer to Competency Standard "Develop a Work Team" (ES-IP-402G-1) for Product Evidence
Process
• Refer to Competency Standard "Develop a Work Team" (ES-IP-402G-1) for Process Evidence
Knowledge
• Refer to Competency Standard "Develop a Work Team" (ES-IP-402G-1) for Knowledge Evidence

E12 Solve Problems and Make Decision at Managerial Level (ES WSQ)
Product
• Refer to Competency Standard "Solve Problems and Make Decision at Managerial Level" (ES-ACE-402G-1) for Product Evidence
Process
• Refer to Competency Standard "Solve Problems and Make Decision at Managerial Level" (ES-ACE-402G-1) for Process Evidence
Knowledge
• Refer to Competency Standard "Solve Problems and Make Decision at Managerial Level" (ES-ACE-402G-1) for Knowledge Evidence

E13 Support the Establishment of an Initiative and Enterprise Framework (ES WSQ)
Product
• Refer to Competency Standard "Support the Establishment of an Initiative and Enterprise Framework" (ES-ACE-401G-1) for Product Evidence
Process
• Refer to Competency Standard "Support the Establishment of an Initiative and Enterprise Framework" (ES-ACE-401G-1) for Process Evidence
Knowledge
• Refer to Competency Standard "Support the Establishment of an Initiative and Enterprise Framework" (ES-ACE-401G-1) for Knowledge Evidence

E14 Manage Cross Functional and Culturally Diverse Team (ES WSQ)
Product
• Refer to Competency Standard "Manage Cross Functional and Culturally Diverse Team" (ES-IP-501G-1) for Product Evidence
Process
• Refer to Competency Standard "Manage Cross Functional and Culturally Diverse Team" (ES-IP-501G-1) for Process Evidence
Knowledge
• Refer to Competency Standard "Manage Cross Functional and Culturally Diverse Team" (ES-IP-501G-1) for Knowledge Evidence

E15 Prepare and Facilitate Classroom Training (TAE Framework)
Product
• Refer to Competency Standard "Prepare and Facilitate Classroom Training" (TR-TDL-304C-1) for Product Evidence
Process
• Refer to Competency Standard "Prepare and Facilitate Classroom Training" (TR-TDL-304C-1) for Process Evidence
Knowledge
• Refer to Competency Standard "Prepare and Facilitate Classroom Training" (TR-TDL-304C-1) for Knowledge Evidence

Compilation of a WSH Portfolio

Upon successful completion of the 15 core and elective units in the Specialist Diploma in WSH (excluding the final core unit), candidates should have compiled a portfolio of the following 8 documents from the individual units' assessments:

- A WSH Policy document
- A Risk Management Plan
- A proposal for an organisational WSH Culture Programme based on the CultureSAFE Model
- A Behavioral Safety Programme (BSP)
- An Emergency Preparedness and Response Plan
- A WSH Incident Investigation and Analysis Report
- A WSH Performance Report
- An internal Audit Report

PART II - A written document of an organisational WSH Management System

This assessment encompasses the product evidence for the core unit, "Develop a WSH Management System" (WP-PR-517C-1), and serves as the final individual work assignment for the attainment of the Specialist Diploma in WSH qualification.

Assessment Method:

- Project work assignment
- Presentation to stakeholders

Assessment requirement:

Candidates are required to work independently with a host company and conduct a comprehensive information gathering including on-site visits and interviews with the relevant stakeholders in order to compile the document.

Candidates must write the document on the WSH Management System within the context of the industry and directly relevant to the host company situation and organizational requirements.

Candidates may make reference from material produced for the earlier core and elective units, where relevant, to produce this WSH Management System document. The referenced material must be ensured to be integrative and synergistic to the context of the organisation's WSH Management System.

The written document of the organizational WSH Management System should cover the following elements, as specified according to SS506:

- Workplace Safety and Health Policy
- Workplace Safety and Health Organisation
- Workplace Safety and Health Committee
- Workplace Safety and Health Training
- Workplace Safety and Health Promotional Activities
- Employee Engagement
- Self-regulation for Workplace Safety and Health
  - Factory Inspections
  - Safety and Health Rules
  - Safe Work Procedures
  - Safety and Health Rules
  - Risk Assessments
  - Maintenance of Machinery and Equipment

- Incident/Accident Investigations and Analysis
- Selection, Evaluation and Control of Contractors
- Emergency Preparedness
- Workplace Safety and Health Programme
- Workplace Safety and Health Initiatives

PART III - Closed Book Written Assessment

This assessment encompasses the knowledge evidence for the core unit, "Develop a WSH Management System" (WP-PR-517C-1), and serves as the final written assessment for the attainment of the Specialist Diploma in WSH qualification.

Assessment Method:

- 2-Hour Written Test (Closed Book)

Learners are required to complete a 2-Hour Written Test (Closed Book). This Written Test revolves around the core domains which aims to assess learners' cultivation of the foundational knowledge base in the basic realm of WSH.

The structure of the closed book written test shall include three parts:

PART	Type of questions
Part I	30 MCQ questions
Part II	6 structured questions
Part III	One case study

Learners must attained a minimum score of 80% in **each of the 5 topics** listed below to be deemed to have successfully completed the Closed Book Written Assessment.

Coverage:

The topics to be covered for the Closed Book Written Test are:

1. Essential WSH legislation and other requirements
   - Workplace Safety and Health Act
     - o General duties of persons at workplace
     - o Safety & Health Management arrangements
     - o Offences and penalties
   - WSH (General Provisions) Regulations
     - o General and special provisions relating to health, safety and welfare
   - WSH (Safety and Health Management System and Auditing) Regulations
     - o Second Schedule – Workplaces to implement SHMS
     - o Third Schedule – Workplaces to appoint WSH Auditors
     - o Fourth Schedule – Workplaces to conduct internal review of SHMS

- WSH (Workplace Safety and Health Committee) Regulations
    - Formation, meetings and functions of WSH Committee
- WSH (First Aid) Regulations
    - Appointment of First-Aiders
    - Provision of first-aid boxes
- WSH (Confined Spaces) Regulations
    - Responsibilities of confined space attendant, assessor, rescuer
    - Requirements for confined space rescue operations
- WSH (Medical Examination) Regulations
    - Application of the Regulations:
        - List of hazardous occupations
- WSH (Incident Reporting) Regulations
- WSH (Registration of Factories) Regulations
    - Factories and premises not required for registration
- WSH (Workplace Safety and Health Officers) Regulations
    - Roles and responsibilities of WSHO
- WSH (Noise) Regulations
    - Permissible exposure limits for noise
    - Measures to reduce or control noise
    - Noise monitoring, hearing protectors and training
- WSH (Construction) Regulations
    - Appointment and duties of WSH Coordinator
- WSH (Shipbuilding and Ship-repairing) Regulations
    - Appointment and duties of Ship Repair Manager
- WSH (Scaffold) Regulations
    - General provision
    - Design by Professional Engineer
        - Work Injury Compensation Act
    - ISO45001Main clauses in the standard
    - OSH Management system model (PDCA)
        - 4.2 OSH policy
        - 4.3 Planning
        - 4.4 Implementation and Operation
        - 4.5 Checking
        - 4.6 Management Review

2. Risk Management related legislation and Code of Practices

- WSH (Risk Management) Regulations
  - Criteria for reviewing Risk Assessment:
    - At least once every 3 years
    - Upon the occurrence of any bodily injury to any person as a result of exposure to a hazard in the workplace
    - Significant change in work practices or procedures
  - Who shall undertake Risk Assessment:
    - Employer
    - Self-employed
    - Principal
- Code of Practice on WSH Risk Management
  - Composition and competency of Risk Management/Risk Assessment team
  - Methodology
    - 6 steps of Risk Management
    - Hierarchy of controls
    - 5X5 risk matrix

3. Reportable incidents and mandatory reporting
   - Accidents leading to injury that meets criteria as per WSH (Incident Reporting) Regulations
     - Criteria for reporting of injuries:
       - Granted more than 3 consecutive days of sick leave by a registered medical practitioner for that injury; or
       - Admitted in a hospital for at least 24 hours for observation or treatment
   - Dangerous occurrences as per First Schedule of WSH Act
   - Occupational diseases as per Second Schedule of WSH Act
   - Incident reporting through iReport
     - iReporting procedure and information required
     - Medical examination and surveillance reports:
       - Hearing test
       - Blood test
       - Chest X-rays
       - Noise monitoring report

4. High risk activities (requiring Permit-To-Work)
   - High risk works as per WSH (Construction) Regulations
     - High risk works requiring mandatory Permit-To-Work:

- High risk works as per WSH (Shipbuilding and Ship-repairing) Regulations
    - High risk works requiring mandatory Permit-To-Work:
        - work which involves the use of any hazardous, volatile, corrosive or flammable chemical, material or solvent in significant quantities;
        - work involving entry into any confined space;
        - spray painting work;
        - grit-blasting work carried out in a confined space;
        - testing or dismantling of any pipe or equipment that:
            a. contains, or had contained, oil or substances that are flammable, toxic or corrosive; or
            b. contains steam;
        - ballasting and de-ballasting of a ship;
        - repair or maintenance work carried out on the hydraulic system of a ship;
        - bunkering and transferring of fuel oil;
        - radiography work; and such other work as the Commissioner may specify in writing to the occupier of the shipyard or the master, owner or agent of the ship or the employer or principal of the person carrying out the work
    - Hot-Work Permit System
- Entry or works in a confined space as per WSH (Confined Spaces) Regulation
    - Criteria for authorized manager to approve permit-to-work in confined spaces

5. WSH Management Systems
- CP 79 Safety Management System for construction worksites
    - 14 elements, their objectives and general requirements
- ISO45001

It is strongly recommended that ATOs should focus on the application of theory to workplace job requirements. Learners should be trained according to their job requirements and be assessed based on the expected performance outcome of WSH Professionals.

Example:

- Recommended type of question: "A worker was reported to be doing XL. Do his actions constitute a violation of WSH regulations? If so,

which section of legislature specifies the wrongdoing?"

- Not recommended type of question: "A worker was reported to be doing XL.   What is the maximum penalty for this under the WSH Act?"

5.5   Assessment Instruments and Tools

Assessments instruments and tools will be required to conduct the assessment. Samples and templates of these instruments and tools include:

- Summary of Assessment Methods and Instruments (See **Annex A)**

- Evidence Gathering Plan – collates all the Performance Statements, Underpinning Knowledge and Range of Application, and shows how they are being assessed using the assessment methods and assessment instruments used in the plan (See **Annex B**)

- Performance Statement Checklist – records the Performance Statements being assessed (See **Annex C**)

- Written/Oral Test Assessment Checklists – records answers to questions concerning the performance statements and underpinning knowledge (See **Annex D**)

- Suggested format for Recording and Reporting Assessment – provides a record of summary of the assessment (See **Annex E**)

- Assessment Specification – provides the context and conditions under which the assessment will be conducted. It includes the duration, venue, and set-up o the assessment, how the assessor should conduct the assessment and how the evidence will be recorded. (See **Annex F**)

- Checklist for Conduct of Assessment (See **Annex G**)

5.6   Assessment Summary Record

All details of the assessment must be recorded in the Assessment Summary Record. At the end of the assessment, the learner must also be given specific and constructive feedback on the assessment outcome. Information to be captured in an assessment record includes the Competency Unit and elements, the assessor name, assessment date, participant name, the assessment evaluation, and any subsequent appeal and outcome.

6 Equipment, Facilities and WSH Requirements

6.1 Training Venue Requirements

- **Classroom**

  The ATO shall ensure that the classroom used has adequate seating for the class of 10 to 25 participants. Seating facilities inclusive of writing tables must be reasonably and comfortably spaced so as to be conducive to the learning process and for the purpose of conducting the assessment. Classrooms must be equipped with projectors, whiteboards, and flipcharts. The classroom must also have adequate lighting and ventilation. Emergency exit routes must be clearly marked out and briefed to the course participants at the start of the course.

- **Practice Area**

  Demonstration and practice should be conducted outdoor. ATOs should provide the necessary outdoor training area for the different competency units each according to the training needs. While there is no prescribe size of the practice area, it should be large enough to adequately demonstrate the performance statements during training.

- **On-site**

  ATOs may also arrange to conduct on-site training and assessment. The site should be relevant to the required competency (e.g: hazard identification, apply human factors in job design and promote WSH culture). The ATO should verify that the Occupier makes due effort to ensure the safety of the trainer and learners while conducting on-site training.

6.2 Training Resource Requirements

ATOs are required to prepare a trainer's guide and a learner's guide for the course. The trainer's guide provides the trainer with the necessary information to train the course and should include:

- Course aim and learning objectives
- Target audience
- Assumed attitude, skills and knowledge
- Course duration
- Class size and trainer/trainee ratio
- Lesson plan
- Course contents and instructional materials
- Training methodologies
- Training resource requirements
- Course administration instruction
- Workplace, Safety & Health instruction

It is the responsibility of the ATO to ensure that no part of the training materials used for the training infringe on patent, design, copyright and intellectual property rights of any individual or organization.

The ATO shall also retain an updated version of the training syllabus, lesson plan, trainer's guide and learner's guide at all times for inspection and verification by WDA.

6.2.1 Total WSH Presentation Slides

Total WSH presentation slides will be issued upon approval of the Training Provider. The materials are provided strictly for the explicit use and guidance of training providers for the conduct of this course.
Any other use of the materials or parts thereof, reproduction, publication, distribution, transmission, re-transmission, or storage in a retrieval system in any form, electronic or otherwise, for purposes other than that expressly stated above without the express permission of WSHC is strictly prohibited.

6.3   Workplace Safety and Health Guidelines

The Workplace Safety and Health Act came into effect in year 2006. It is designed to cultivate good safety habits in all individuals so as to engender a strong safety culture in our workplace. Under the Act, ATOs are required to take reasonably practicable measures to ensure the safety and health of all learners during training. Their responsibilities include:

- conducting risk assessments to remove or control risks to trainees
- maintaining safe facilities and arrangements for training
- ensuring safety in machinery, equipment, plant, articles, substances and work processes at the training centre and training sites;
- developing and implementing control measures for dealing with emergencies;
- providing learners with clear instruction, information, training and supervision to ensure safe training practice.

7 Trainer, Assessor and Developer Requirements

7.1 Mandatory Requirements for Trainer and Assessor

This section articulates the trainer/assessor requirements covering these components:

Domain Qualification
- The trainer/assessor must be a Registered WSH Officer with Ministry of Manpower and he/she should possess a Degree/Diploma in Engineering, Science and Technology or relevant disciplines.   - The trainer/assessor must be able to demonstrate current competency in the Competency Unit. Current competency will usually be demonstrated by the completion of a relevant technical or vocational qualification.

Domain Work Experience
- The trainer/assessor must have at least five years' WSH experience.   - The trainer/assessor must also be able to keep updated with industry practice.

WSQ Trainer/Assessor Pedagogic Requirements
The trainer/assessor must be certified competent and awarded the WSQ Advanced Certificate in Training and Assessment (ACTA) or or Advanced Certificate in Learning and Performance (ACLP) or Diploma in Adult Continuing Education (DACE) or Diploma in Design and Development of Learning for Performance (DDDLP).The trainer/assessor must have at least two years of training experience in workplace safety and health over the last four years

7.2 Mandatory Requirements for Developer

This section articulates the developer requirements covering these components:

Domain Qualification
• The developer must be a Registered WSH Officer with Ministry of Manpower or WSH domain subject matter expert and he/she should possess a Degree/Diploma in Engineering, Science and Technology or relevant disciplines
• The developer must be able to demonstrate current competency in the Competency Unit. Current competency will usually be demonstrated by the completion of a relevant technical or vocational qualification.
• A qualified and experienced developer can work with an SME in developing a courseware.

Domain Work Experience
• The developer must have at least five years' WSH experience .
• The developer must also be kept updated with industry practice.

WSQ Developer Pedagogic Requirements
• The developer must be certified and awarded the WSQ Advanced Certificate in Training and Assessment (ACTA) or Advanced Certificate in Learning and Performance (ACLP) or Diploma in Adult Continuing Education (DACE) or Diploma in Design and Development of Learning for Performance (DDDLP).
• With effect from 1 October 2015, a Diploma in Adult and Continuing Education (DACE) or Diploma in Design and Development of Learning for Performance (DDDLP is required.
• The developer must have at least two years of experience in training and courseware development

8   Summary of Mandatory Sections

This section summarizes all the mandatory sections and required information, for easy reference. ATOs are expected to note the information indicated in the following Sections and to comply with the stated requirements, where appropriate:

Section	Title
2.7	Recommended Assessor to Candidate Ratio
4.1	Content Coverage
5.3	Assessment Strategies - Industry Requirements
7.1	Trainer/Assessor Requirements
7.2	Developer Requirements

PART 2

WSQ and
Supporting Resources

9   Resource Information

9.1   Glossary of Terms

This section presents the list of terms and abbreviations used in this document as well as terms frequently encountered in the training and assessment.

TERMS	DEFINITIONS
Accreditation	A process by which an agency or organisation evaluates or recognises a training or academic programme or an institution as meeting certain pre-determined standards or requirements.
Assessment	A process of collecting evidence and making judgements as to whether an individual has achieved a certain level of competency.
Assessment criteria	Provides the context and conditions, under which the assessment will be conducted, what evidence the assessor must collect and the grading criteria to be used.
Assessment method	The process or technique used to gather evidence. (Bresciani & Fackler, 2005)
Assessment plan	A document which outlines when the assessment will take place and how it will be conducted. It includes the program mission or course/activity purpose, goals as appropriate, intend outcomes, methods for gathering, analyzing data and interpreting data for providing evidence to inform decision making. (Bresciani & Fackler, 2005)
Assessment tool	An instrument or resource used in association with a given assessment method. It may include a questionnaire, test paper, interview questions, structured report template and record sheet.
Assumed Attitudes, Skills and Knowledge	Refers to the attitude, skills and knowledge a learner ought to have and is assumed to have before they attend the training programme.
Competency	A set of knowledge, skills and attributes that a person needs and uses in an occupation that is both observable and measurable and that forms the basis for competency-based criteria.
Competency-Based Assessment (CBA)	A process of gathering evidence and judging on whether a learner is able to achieve a standard of competency identified by a particular industry as essential for satisfactory performance under the Singapore Workforce Skills Qualifications System.

TERMS	DEFINITIONS
Competency Category	A category comprises a group of inter-related competency units. It is used to describe a core or functional competency identified by a particular industry.
Competency Descriptor	It gives an overview of what the competency standard covers.
Competency Level	It reflects the level of complexity and depth of learning required by the competencies in the standard.
Competency Standard	A document that describes the skills, knowledge and attributes needed to perform a job task and describe the acceptable levels of performance.
Competency Unit (CU)	A broad description of the work role, duty or function that contributes to the achievement of the competence. It is the smallest group of knowledge, skills and attributes that can be accredited.
Continuing Education and Training (CET)	Education programmes for adults, usually at the post-secondary level and offered as part-time or short course in occupational subject areas.
Credit value	A unit of measure assigned to courses or course equivalent learning.
Credit transfer/exemption	The automatic granting of a competence result in a competency/module based on a student's satisfactory result in a unit/module. Credit (advance standing) can only be given when the equivalence between the two units/modules is clearly stated in curriculum documentation.
Curriculum guidelines	Guidelines to the design of competency-based training programmes.
Employability Skills (ES)	One of the initiatives of the Singapore Workplace Development Agency (WDA) to enhance the overall skills standards of Singapore workers at three levels: Occupational, Supervisory and Managerial. It is developed in consultation with employers, industry associations and subject matter experts. Foundation skills and qualities are transferable and critical for workers to become more competitive, resilient and agile at the workplace.
Evaluation (in training)	The process of determining the adequacy, value, outcomes and impact of training and learning.
Evidence	Information gathered which, when matched against the performance statements, provides proof of competency.
Evidence Guide	Part of a unit of competency which aims to guide assessment of the unit of competency in the workplace and/or training environment.

TERMS	DEFINITIONS
Evidence Source	Types of proof (product, process and knowledge evidences) an individual may produce to demonstrate competent performance.
Facilitator Guide	A guide which maps out a suggested training strategy for the delivery of a unit/module, which is part of a course of study. It is cross-referenced to the learner guide, and provides the trainer with examples of delivery methods that may be used for delivering the training.
Industry Competency Map	A document that captures the types of competencies needed in an industry. The competencies are generally classified into employability skills, occupational skills and knowledge, and industry skills and knowledge. The competencies are grouped into competency categories. Each competency is further broken down into a set of competency units and/or competency elements.
Industry Skills	Knowledge that would enable a worker to understand and appreciate the impact of his work in relation to the worker's sector and its role to the Singapore economy.
Knowledge evidence	Evidence to demonstrate individual's competence on the underpinning knowledge
Learning needs	Knowledge, skills or attributes identified that need to be acquired by an individual in order to close current or future competency gaps or to meet organisational or unit level goals or objectives.
Learning outcomes	The skills and knowledge a learner should be able to demonstrate as a result of having undertaken training and/or assessment. It must be measurable, clear and observable.
Occupational Skills	Skills required for the performance of one's work set out in competency terms to meet standards of performance agreed by the industry.
Performance Standards	Explicit definitions of what the learners must do to demonstrate proficiency at a specific level on the competency standards.
Performance Statements	It refers to the expected work performance outcomes or behaviors and expected level of performance to be demonstrated by a competent individual.
Process evidence	Evidence an individual need to produce his/her competence to demonstrate a skill.
Product evidence	Evidence to demonstrate individual's competence to produce a finished product at end of task.
Range of Application	It states the ranges, contexts or circumstances under which competent performance may be demonstrated. It gives further references to specific areas or terms in the

TERMS	DEFINITIONS
	Performance Statements and Underpinning Knowledge.
Recognition of Prior Learning (RPL)	The acknowledgement of a person's skills and knowledge acquired through previous training, work or life experience which may be used to grant status or credit in a subject or module.
Relevant Job Roles/Occupation	It refers to job roles/occupations that this competency unit would be relevant to.
Statement of Attainment (SOA)	A formal certification issued by WDA, through the Approved Training Organisation (ATO), in recognition that an individual is competent in a given competency unit.
Training & Assessment Guide (TAG)	A document prepared by WDA to assist the Approved Training Organisation (ATO) in the design and development of competency-based training programme. It is usually issued as part of a specific competency unit.
Underpinning Knowledge	It refers to the knowledge that an individual needs to know and understand in order to perform competently at work. It may include principles, processes, methods, procedures, legislative/legal requirements
Validation	A process for confirming the correctness or soundness of information or findings
Workforce Skills Qualifications (WSQ) System	A nationally agreed competency-based skills development system where skills acquisition, training and assessment is based on industry-approved competency standards. It embraces the concepts of competency-based training. Recognition of Prior Learning, open entry requirements and adult-centred learning methodologies. All of these aim to address adult learning barriers.

9.2   Glossary of WSH-Related Terms

This section presents the list of terms and abbreviations used in this document as well as terms frequently encountered in WSH.

Terms	DEFINITIONS
Accident	Any unintended event which causes bodily injury to a person, but does not include any bodily injury sustained by a person: a. in the course of commuting to or from his workplace using a mode of transport provided by his employer; b. as a result of his act or default while driving any vehicle on a public road in the course of his work; or c. in the course of his work as a domestic worker (*Source: WSH (incident reporting) Regulations*)
Audit	A systematic, independent and documented process for

Terms	DEFINITIONS
	obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled (*Source: ISO 9000:2005*)
Behavioural Safety	Application of science of behavior change to real world problems (*Source: "Introduction to Behavioral Safety" Cambridge Center for Behavior Studies*)
	The systematic application of psychological research on human behavior to the problems of safety in the workplace (*Source: Cooper, M.D. (1998) "Improving Safety Culture: A Practical Guide" J Wiley & Sons, Chichester*)
Behavioural Safety Programme (BSP)	Programme designed to modify people's behaviour whilst working, leading to improved safety culture and performance
Competent Person	A person who has sufficient experience and training to perform the work required to be carried out, and has passed such courses as the Commissioner in WSH may require for that work (*Source: WSH (General Provisions) Regulations*)
Continual Improvement	Recurring activity to increase the ability to fulfill requirements (*Source: ISO 9000:2000*)
Corrective Action	Action taken to eliminate the cause of nonconformities to prevent recurrence (*Source: ISO 9000*)
Critical Behaviours	The total collection of actions and reactions exhibited by a person that impact performance in a specific job, role or function
Designated Person	A competent person appointed in writing by: a. an occupier of a shipyard; b. an employer of persons carrying out work in a shipyard or on board a ship in a harbour; or c. a principal who gives direction to persons on the work carried out by those persons in a shipyard or on board a ship in a harbour, to perform any task or duty prescribed under these Regulations (*Source: WSH (Shipbuilding and Ship-Repairing) Regulations*)
	A competent person appointed in writing by: a. an occupier of a worksite; b. an employer of persons carrying out work in a worksite; or c. a principal who gives direction to persons on the work

Terms	DEFINITIONS
	carried out by those persons in the worksite, to perform any task or duty prescribed under these Regulations in connection with the worksite; (*Source:* WSH (Construction) Regulations)
Emergency Preparedness	Actions taken in anticipation of an emergency to facilitate rapid, effective and appropriate response to the situation (*Source: Inter-Agency Contingency Planning Guidelines for Humanitarian Assistance 2001*)
Emergency Response	Mobilization of resources to mitigate the impact of an emergency
Emergency Response Team	A group of people who prepare for and respond to any emergency incident (*Source: Wikipedia*)
Environmental Management System	The part of an organization's overall management system that relate to the development, implementation, achievement, review, and maintenance of the organization's environmental policy. (*Source: ISO 14001*)
Hazard	Anything with the potential to cause bodily injury, and includes any physical, chemical, biological, mechanical, electrical or ergonomic hazard (*Source: WSH (Risk Management) Regulations*)
	Anything, any source or any situation with the potential to cause bodily injury or ill-health. (*Source: Risk Management Code of Practice*)
Human Errors	A generic term to encompass all those occasions in which a planned sequence of mental or physical activities fails to achieve its intended outcome, and when these failures cannot be attributed to the intervention of some change agency (*Source: Reason, 1990 Human error. New York, Cambridge University Press*)
Human Factors	The scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance. (*Source: International Ergonomics Association*)
Incident	Work related event(s) in which an injury or ill health

Terms	DEFINITIONS
	(regardless of severity) or fatality occurred, or could have occurred (*Source: OHSAS 18001*)
Initial Review (Initial Status Review)	An evaluation on the current state of a company's Health and Safety Management System as it stands at that the time of the visit, look at how the system should be performing or operating, and offer reasonably practicable recommendations on how to improve the system in a practical and cost effective manner.
Internal WSH Audit/ Review	An audit conducted on safety and health management system for workplaces specified in the Fourth Schedule of the WSH (Safety Management System and Auditing) Regulations 2009.
License	The permission granted by competent authority to exercise a certain privilege that, without such authorization, would constitute an illegal act.
Occupational Health	The promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; the prevention amongst workers of departures from health caused by their working conditions; the protection of workers in their employment from risks resulting from factors adverse to health; the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological capabilities; and, to summarize, the adaptation of work to man and of each man to his job (*Source: Joint ILO/WHO Committee on Occupational Health, 1995*)
Permit To Work	The certificate or form which is used as part of an overall system of work and which has been devised by a company to meet its specific needs (*Source: HSE HSG250 Guidance on permit-to-work systems*)
Preventive Action	Determines and eliminates the causes of potential non-conformities to prevent occurrence.
Risk	The likelihood that a hazard will cause a specific bodily injury to any person. (*Source: WSH (Risk Management) Regulations*)
	The likelihood that a hazard will cause a specific bodily injury to any person (*Source: Risk Management Code of Practice*)

Terms	DEFINITIONS
	Combination of the likelihood of an occurrence of a hazardous event or exposure(s) and the severity of injury or ill health that can be caused by the event or exposure(s) (*Source: OHSAS 18001*)
	the effect of uncertainty upon objectives where an effect is a deviation from the expected - positive or negative (*Source: ISO 31000*)
Risk Assessment	The process of evaluating the probability and consequences of injury or illness arising from exposure to an identified hazard, and determining the appropriate measures for risk control. (*Source: WSH (Risk Management) Regulations*)
	The process of evaluating the probability and consequences of injury or illness arising from exposure to an identified hazard, and determining the appropriate measures for risk control. (*Source: Risk Management Code of Practice*)
	Process of evaluating the risk(s) arising from a hazard(s), taking into account the adequacy of any existing controls, and deciding whether or not the risk(s) is acceptable (*Source: OHSAS 18001*)
Risk Assessment Team	The team(s) responsible for conducting RAs within the scope defined by the RM or RA Team. If an organisation requires only one team, then the functions of the RA and RM team may be combined within one team. (*Source: Risk Management Code of Practice*)
Risk Management	The identification, assessment and prioritisation of WSH risks followed by the application of control measures to minimise the probability and/or impact of undesirable WSH consequences (*Source: Risk Management Code of Practice*)
	A coordinated set of activities and methods that is used to direct an organization and to control the many risks that can affect its ability to achieve objectives. It also refers to the architecture that is used to manage risk. This architecture includes risk management principles, a risk management framework, and a risk management process. (*Source: ISO 31000*)
Risk Management	An organization's risk management plan describes how it

Terms	DEFINITIONS
Plan	intends to manage risk. It describes the management components, the approach, and the resources that will be used to manage risk. Typical management components include procedures, practices, responsibilities, and activities (including their sequence and timing). Risk management plans can be applied to products, processes, and projects, or to an entire organization or to any part of it. (*Source: ISO 31000*)
Risk Management Team	The primary team responsible for the overall RM direction and activities of the workplace. In larger organisations, many functional or area RA Teams may evolve. The responsibility to steer the overall organisation's RM effort will fall on the RM Team. The RM Team can also function as an RA Team. (*Source: Risk Management Code of Practice*)
Stakeholder	A person, group, organization, member or system who affects or can be affected by an organization's actions. (*Source: http://en.wikipedia.org/wiki/Stakeholder*)
WSH Climate	The temporal state measure of safety culture, subject to commonalities among individual perceptions of the organization. It is therefore situationally based, refers to the perceived state of safety at a particular place at a particular time, is relatively unstable, and subject to change depending on the features of the current environment or prevailing conditions. (*Source: Douglas A. Wiegmann et al (2002) "A Synthesis of Safety Culture and Safety Climate Research"*)
WSH Control Measures	A control is any measure or action that modifies risk. Controls include any policy, procedure, practice, process, technology, technique, method, or device that modifies or manages risk. (*Source: ISO 31000*)
WSH Culture	The enduring value and priority placed on worker and public safety by everyone in every group at every level of an organization. It refers to the extent to which individuals and groups will commit to personal responsibility for safety, act to preserve, enhance and communicate safety concerns, strive to actively learn, adapt and modify (both individual and organizational) behavior based on lessons learned from mistakes, and be rewarded in a manner consistent with these values. (*Source: Douglas A. Wiegmann et al (2002) "A Synthesis of Safety Culture and Safety Climate Research"*)

Terms	DEFINITIONS
WSH Culture Assessment	The evaluation of the stage or maturity level of WSH culture within an organization.
WSH Culture Programme	A planned series of activities with the long term objective of improving WSH culture.
WSH Inspection Plan	A detailed scheme, program, or method worked out beforehand for examining both worksites and equipment, and comparing them against previously established standards specifically to determine if safety legislation and the company safety policies are being followed
WSH Performance Measurement	Generally associated with a workplace safety and health management system and refers to the "quantification of the outcomes of selected low-level, low consequence processes" (*Source: Acceptable Level of Safety in the Provision of Air Traffic Services in Ireland*)

9.3 List of Acronyms

A list of commonly used acronyms is provided below

ACRONYMS	DESCRIPTION
ACTA	Advanced Certificate in Training and Assessment
ASK	Assumed Skills & Knowledge
ATO	Approved Training Organisation
ATP	Accredited Training Provider
CS	Competency Standard
CTAG	Curriculum, Training & Assessment Guide
ES	Employability Skills
CU	Competency Unit
ICT	Information and Communication Technologies
MOM	Ministry of Manpower
NYC	Not Yet Competent
PS	Performance Statement
RLH	Recommend Learning Hours
SOA	Statement of Attainment
TAG	Training and Assessment Guide

ACRONYMS	DESCRIPTION
UK	Underpinning Knowledge
WDA	Singapore Workforce Development Agency
WPLN	Workplace Literacy and Numeracy
WSH	Workplace Safety and Health
WSHC	Workplace Safety and Health Council
WSHP	Workplace Safety and Health Professionals
WSQ	Singapore Workforce Skills Qualifications

9.4   Version Control Record

Version	Effective Date	Status/Change
1.0	08 April 2013	First release
2.0	21 Jan 2022	Update

Annex A – Summary of Assessment Methods and Instruments

PERFORMANCE STATEMENTS	ASSESSMENT METHOD					
	WT	OQ	RP	PP	CS	IPA

NOTE:

Assessment Methods	Reference	Assessment Methods	Reference
WT = Written Test	AA01	PP = Practical Performance	AA04
OQ = Oral Questionnaire	AA02	CS = Case Study	AA05
RP = Role Play	AA03	IPA = Individual Project Assignment	AA06

S/N	Assessment Instrument	Duration
AA01		
AA02		
AA03		
AA04		
AA05		
AA06		
	Total Assessment	

Annex B – Evidence Gathering Plan

Performance Statements	Underpinning Knowledge & Range of Application	Assessment Criteria (State what is expected and required from the candidate)	Assessment Methods					Assessment Instruments	Reference		
			Written Test	Oral Questioning	Role Play	Practical Performance	Case Study		Facilitator Guide	Learner Guide	Slide
PS1 (Full Text)	UK (Full Text)										
	RA (Full Text)										
PS2 (Full Text)	UK (Full Text)										
	RA (Full Text)										
PS3 (Full Text)	UK (Full Text)										
	RA (Full Text)										
PS4 (Full Text)	UK (Full Text)										
	RA (Full Text)										
PS5 (Full Text)	UK (Full Text)										
	RA (Full Text)										
PS6 (Full Text)	UK (Full Text)										
	RA (Full Text)										
PS7 (Full Text)	UK (Full Text)										
	RA (Full Text)										
PS8 (Full Text)	UK (Full Text)										
	RA (Full Text)										
PS9 (Full Text)	UK (Full Text)										
	RA (Full Text)										

Legend: PS: Performance Statement   UK: Underpinning Knowledge   RA: Range of Application

Annex C – Performance Statements Checklist

Assessment strategy	Performance statements assessed	Competent	
		C	NYC
Written Test			
Practical Performance with Oral Test			
Case Study			
Role Play			
Individual Project Assignment			

Annex D – Written/Oral Test Assessment Checklist

Record of interview questions	
Name of candidate	
Unit(s)	
Registered training organisation or workplace	
Name of assessor	

Questions	Satisfactory Response	
	YES	**NO**
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐

The candidate's underpinning knowledge and understanding was:

Satisfactory ☐   **Not satisfactory** ☐

Signed by Assessor:_____Date: _____

Feedback to Candidate:

Annex E – Suggested Format for Recording and Reporting Assessment

Competency Unit:

Approved Assessment Centre:
Candidate Name: *(As in NRIC/Passport)*

NRIC/Passport:	Course Dates:

Performance Statements	**Assessment Methods**					**Competency**		**Comments**
	WT	**OQ**	**RP**	**PP**	**CS**	**C**	**NYC**	
						☐	☐	
						☐	☐	
						☐	☐	
						☐	☐	
						☐	☐	

NOTE:
    WT = Written Test   CS = Case Study   PP = Practical Performance
    OQ = Oral Questioning   RP = Role Play

Overall Assessment   ☐ **Competent**   ☐ **Not Yet Competent**

Feedback on outcome by Assessor/Feedback by candidate:
(*Feedback on the overall performance or on the case of NYC; any area of skills gap and improvement needed.*)

Candidate's Signature	Assessor's Signature
Name:	Name:
Date:	Date:

Note to Candidate
By signing, the candidate is agreeing to accept the assessment outcome. Candidates may appeal against the outcome of assessment. This may be done through (*name of ATO*) within one week following the end of course. All appeals must be submit personally using the prescribed form available with the office.

Annex F – Assessment Specifications

These guidelines concern the use of *(indicate assessment method)* to assess the candidate's competence.

Specification item	Details on specification
Underpinning Knowledge and Performance criteria	
Duration	
Venue	
Set Up	
Conducting *(assessment method)*	
Recording the Assessment Result	1. Record findings and conclusions in the Assessment Record for *(assessment method)*. 2. Tick (✓) in the "C" column for "Competent", and the "NYC" column for "Not Yet Competent" to indicate the outcome of the assessment for the specific knowledge item. 3. Record the questions asked and the responses given. 4. Record reasons/evidence for all "NYC" items in "Comment" column of the Assessment Record. 5. An "NYC" in any Competency Element will result in an "NYC" in the entire Competency Unit. A candidate is deemed competent when he achieved a "C" for all PSs and UKs in the unit.
Feedback	1. Inform and encourage candidate on strengths or items scored "C". 2. Inform and advise candidate on weaknesses or items scored "NYC" and how to overcome such weaknesses. 3. Inform candidate on the final results of the assessment.

Annex G – Checklist for Conduct of Assessment

No	Items	Tick ✓
1	Verify candidate's identity	
2	Explain assessment's purpose, process and duration	
3	Check with candidate for any special needs	
4	Explain the appeal procedure	
5	Proceed with assessment	
6	Record the start time and end time	
7	Assess and record candidate's competency for all PSs	
8	Record results in summary record page. *(A candidate is considered competent only when he/she is rated 'C' for all the PSs.)*	
9	Feedback results to candidate	
10	Sign on appropriate pages	
11	Ensure candidate sign on summary record	
12	Check and submit completed form to appropriate person in organisation	

Annex H – Credit Exemption for SDWSH

Current Competency Unit		Prior Competency Unit Recognised for Credit Exemption	
Competency Code	Competency Unit Title	Competency Code	Competency Unit Title
CORE UNITS			
WP02–IC–501C-1	Design and Implement Behavioural Safety Programme	WP-IC-501C-1	Design and Implement Behavioural Safety Programme
WP02–IC–502C-1	Establish and Review Emergency Preparedness and Response Plan	WP-IC-502C-1	Establish and Review Emergency Preparedness and Response Plan
WP02–CA–501C-1	Establish Measurement and Monitoring of WSH Performance	WP-CA-501C-1	Establish Measurement and Monitoring of WSH Performance
WP02–CA–502C-1	Establish and Manage WSH Incident Investigation and Analysis Process	WP-CA-502C-1	Establish and Manage WSH Incident Investigation and Analysis Process
WP02–CA–503C-1	Manage Internal WSH Management System Audit	WP-CA-503C-1	Manage Internal WSH Management System Audit
ELECTIVE UNITS			
WP02-PR-506E-1	Manage WSH in Construction Industry	WP-PR-505E-1	Manage WSH Risks in Construction Industry
WP02-PR-507E-1	Manage WSH in Chemical, Process, Pharmaceutical Industries and Laboratories	WP-PR-506E-1	Manage WSH Risks in Chemical, Process, Pharmaceutical Industries and Laboratories
WP02-PR-508E-1	Manage WSH in Manufacturing Industry	WP-PR-507E-1	Manage WSH Risks in Manufacturing Industry
WP02-PR-509E-1	Manage WSH in Service Industry	WP-PR-508E-1	Manage WSH Risks in Service Industry
WP02-PR-510E-1	Manage WSH in Marine Industry	WP-PR-509E-1	Manage WSH Risks in Marine Industry
WP02-PR-511E-1	Establish Environmental Management System	WP-PR-510E-1	Establish Environmental Management System
WP02–IC–504E-1	Manage Financial Resources for WSH	WP-IC-506E-1	Manage Financial Resources for WSH
WP02–IC–505E-1	Plan, Prepare and Deliver Presentations	WP-IC-505E-1	Plan, Prepare and Deliver Presentations