



<u>COURSE OVERVIEW HE0128</u> Occupational Hygiene Certification Program OHTA505: Control of Hazardous Substances

(Accredited by the Occupational Hygiene Training Association - OHTA)

Course Title

Occupational Hygiene Certification Program: OHTA505: Control of Hazardous Substances (Accredited by the Occupational Hygiene Training Association - OHTA)

1.

(40 PDHs)

AWAR

Course Date/Venue Please see page 3

Course Reference

Course Duration Five days/4.0 CEUs/40 PDHs

Course Description









This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-theart simulators.

The course is a core module for the International Certi cate in Occupational Hygiene (ICertOHTA). It is designed to be delivered as a 5-day taught programme including participant's assessment.

The aim of the course is:-

- Describe how exposure to hazardous substances arises in the workplace
- Build on knowledge of the methodologies and technologies available to control exposures and reduce risks to health.

On completing this course successfully, participants will be able to :-

- Select control strategies and optimize control solutions for airborne contaminants.
- Recognize the range of approaches to risk reduction embodied in the hierarchy of control and select appropriate strategies for implementation.
- Describe the meaning of "adequate control" particularly for personal exposures; weigh design considerations in the workplace, process, and plant, as a means of reducing occupational exposures.



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- Describe the elements of a local exhaust ventilation system, recognize typical installations, know how to carry out the measurements to assess effectiveness and whether operating to the design specification.
- Recognize the limitations of local exhaust hoods and enclosures and the means to optimize their effectiveness.
- Further develop your knowledge of how personal protective equipment programmes may be used effectively.
- Recognize the impact that control measures may have on other workplace hazards and understand how to take a holistic approach to the design of control solutions.

This course is designed to provide participants with a detailed and up-to-date overview of Control of Hazardous Substances. It covers the workplace control principles, hierarchy of control and designing control strategies; the sources of contaminants, process designing and principles and ventilation systems; the principles of containment, types of containment equipment and designing of containment systems; using personal protective equipment covering respiratory protective equipment, chemical protective clothing, gloves and dermal care; and the administrative elements and practical applications of control strategies.

Course Objectives

Upon the successful completion of this course, each participant will be able to:

- Achieve the OHTA Certificate in OHTA505: Control of Hazardous Substances
- Discuss the workplace control principles, hierarchy of control and designing control strategies
- Recognize the sources of contaminants, process design and principles and ventilation systems
- Identify the principles of containment, types of containment equipment and design of containment systems
- Use personal protective equipment covering respiratory protective equipment, chemical protective clothing, gloves and dermal care
- Recognize the administrative elements and practical applications of control strategies

Exclusive Smart Training Kit - H-STK[®]



Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK**[®]). The **H-STK**[®] consists of a comprehensive set of technical content which includes **electronic version** of the course materials, sample video clips of the instructor's actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

Who Should Attend

This course covers deeper appreciation and wide understanding of hazardous substance control for health and safety professionals, occupational health specialists including physicians and nurses. Specialists in subjects such as acoustics, ergonomics, human factors, occupational psychology, work organisation, biosafety, engineering, analytical chemistry and those who want a broader appreciation of how their role interfaces with other professions over health issues in the workplace.



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Course Date/Venue

Session(s)	Date	Venue
1	April 06-10, 2025	Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
2	May 04-08, 2025	Slaysel 02 Meeting Room, Movenpick Hotel & Resort Al Bida'a Kuwait, City of Kuwait
3	June 16-20, 2025	Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
4	September 07-11, 2025	Al Aziziya Hall, The Proud Hotel Al Khobar, Al Khobar, KSA
5	November 02-06, 2025	Boardroom, Warwick Hotel Doha, Doha, Qatar

Training Methodology

All our Courses are including Hands-on Practical Sessions using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Training Fee

Dubai	US\$ 7,500 per Delegate + VAT . This rate includes H-STK [®] (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Kuwait	US\$ 7,500 per Delegate + VAT . This rate includes H-STK [®] (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Abu Dhabi	US\$ 7,500 per Delegate + VAT . This rate includes H-STK [®] (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Al Khobar	US\$ 7,500 per Delegate + VAT . This rate includes H-STK [®] (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Doha	US\$ 8,000 per Delegate. This rate includes H-STK [®] (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Training Fee

US\$ 280 per Delegate + VAT.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.



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Course Certificate(s)

(1) OHTA Certificates will be issued to participants who have successfully completed the course and passed the exam of the course.

OHTA Certificate(s)

The following certificate is a sample of the OHTA certificates that will be issued to successful candidates:-





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(2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

TOR Issuance [HTME No.	CEU Official Trans	cript of Recor	- <u>-</u>	
HTME No.	ate: 10-1101-20		ds	
	74851			
Participant Nan	ie: Waleed Al Habeeb			
Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE0128	Occupational Hygiene Certification Program OHTA505: Control of Hazardous Substances (Accredited by the Occupational Hygiene Training Association - OHTA)	November 11-15, 2023	40	4.0
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Certificate Accreditations

Haward Technology is accredited by the following international accreditation organizations:-



Occupational Hygiene Training Association (OHTA)

Haward Technology is an Approved OHTA Trainer under the OHTA505 and OHTA500 series modules that promote better standards of occupational hygiene practice throughout the world.

Haward Technology supports hygiene professionals who wanted people around the world to enjoy the benefits of healthy working environments.



British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-01 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-01 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **4.0 CEUs** (Continuing Education Units) or **40 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.



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Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Mr. Peter Jacobs, is a **Senior HSE Consultant** with almost **25 years** of extensive experience within **Oil & Gas**, **Refinery** and **Petrochemical** industries. His wide experience covers in the areas of **Incident Command & Report Writing**, **HAZOP**, **HAZMAT**, **HAZID**, **Health Risk** Assessment, Modern **Safety Risk** Management, **Process Risk** Management, **Root Cause Analysis** Techniques, **HSE Management System** Development & Implementation, **SAESI Hazardous Materials** for the **First Responder Operations (NFPA 472)**, **Industrial Safety** &

Housekeeping, Job Safety & Hazard Analysis, Hazardous Substances Measurement, Workplace Control, Physical Agents, Emergency Response, Chemical & Biological Operations, Basic Safety & Loss Prevention, Safety in Chemical Laboratory, Confined Space Safety, Industrial Hygiene, Occupational Health & Hygiene, Ergonomics, Biological Assessment, Radiation with Radon/Thoron Assessment, Radiation Protection Safety, Radiation Monitoring, Natural Radiation Sources, Nuclear Regulatory Act, Industrial Ventilation, Air Pollution Dispersion Modelling, Basic Clandestine Drug Laboratory Investigation, Chemical Engineering, Fire Safety & Evacuation, Evacuation Safety, Safety Orientation, Hand & Power Tools Safety, Isokinetic Stack Sampling, Dust Exposure, Quantifying Workplace Stressors, Noise & Airborne Pollutants, Thermal Stress, Illumination, Mine Health & Safety, Statistical Method Validation, Legal Audit Compliance, Riot & Crowd Control, ISO 14000, OHSAS 18000, ISO 17025 and ISO 9000.

During his career life, Mr. Jacobs has gained his practical and field experiences through his various significant positions and dedication as the Forensic Science Laboratory Manager, Occupational Hygienist, Radiation Protection Officer, Lead Practitioner, Safety, Health & Environmental (SHE) Specialist, First Responder, OHS Inspector, Ambulance Assistant and LPG Distributor Auditor from various international companies like the Sedulitas, Richards Bay Minerals, Sasol and South African Police Service.

Mr. Jacobs has a Master's degree in Public Health – Occupational Hygiene, a National Diploma in Purchasing Management and held an Intermediate Certificate in Mine Environmental Control an Accredited South African Emergency Services Institute (SAESI). Further, he is a Certified Instructor/Trainer, an Appointed Commissioned Officer, a SAIOH/ IOHA President, an Assessor/Moderator of Health & Welfare SETA, a Registered Occupational Hygienist of the Southern African Institute for Occupational Hygiene, awarded as a SAIOH Occupational Hygienist of the Year Award and a well-regarded member of the British Occupational Hygiene Society (BOHS), Mine Ventilation Society of South Africa (MVSSA) and South African Radiological Protection Association (SARPA). He has further delivered numerous trainings, courses, seminars, workshops and conferences worldwide.



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Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 - 0745	Registration & Coffee
0745 - 0800	Welcome & Introduction
0800 - 0815	PRE-TEST
0815 - 1030	Workplace Control Principles Introduction (Control Challenges)
1030 - 1045	Break
1045 - 1245	<i>Workplace Control Principles (cont'd)</i> <i>Hierarchy of Control (Prioritisation of Control Methods; Key Elements of the</i> <i>Hierarchy of Control; Using a Combination of Controls; Managing Controls)</i>
1245 - 1330	Lunch
1330 - 1500	Designing Control Strategies Introduction • A Structured Approach • Identifying Sources of Exposure • Determining the Degree of Control Required
1500 - 1515	Break
1515 - 1640	Designing Control Strategies (cont'd) Deciding on Control Options • Deciding on Management Measures • Control Banding
1640 - 1700	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1700	End of Day One

Day 2

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0730 - 1030	Understanding Sources of Contaminants
1030 - 1045	Break
1045 - 1245	Understanding Sources of Contaminants (cont'd)
1245 - 1330	Lunch
1330 - 1500	Process Design & Principles General Design of Equipment and Workplace Layout • Prevention by Elimination & Substitution
1500 - 1515	Break
1515 - 1640	Process Design & Principles (cont'd) Legislation as a Means of Achieving Control
1640 - 1700	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1700	End of Day Two

Day 3

0730 - 1030	Ventilation Systems Introduction • Types of Ventilation Systems • Basic Principles of Ventilation (Definitions; System Components)
1030 - 1045	Break



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	Ventilation Sustems (cont'd)
	Local Exhaust Ventilation Systems (Introduction; Hood Design; Ductwork;
	Fans; Air Cleaners; Discharge to the Atmosphere; Measurement and Testing of
1045 - 1245	LEV Systems; Limitations of LEV Systems) • General Ventilation Systems
	(Dilution Ventilation; Dilution Ventilation Equations; Infiltration; Application
	of Dilution Ventilation Systems; Displacement Ventilation; Limitations of
	General Ventilation Systems)
1245 – 1330	Lunch
	Principles of Containment
	Introduction (Definition of Containment; Use of Containment; Primary and
	Secondary Containment; Integration of Containment with Other Control
1330 - 1500	Measures; Integration of Containment with Process Design; Typical Industrial
	Processes Requiring Containment) • Types of Containment Equipment (Simple
	Enclosures and Screens; Isolators; Over-bagging; Iransfer Devices; Coupling
	Devices; Remote Hanaling) • Design of Containment Systems (High Level
1500 1515	Containment Systems)
1500 - 1515	Break
	Principles of Containment (cont'd)
1515 1640	Other Considerations (Control of Waste & Emissions; Explosion Prevention &
1515 - 1640	Control; Operation & Maintenance of Containment Devices; Limitations of
	Containment Systems; Future Developments) • Testing & Valiaation of
	Containment • Some Specific Examples of Containment
	Line this Course Organizes the Instructor(a) will Priof Doutisingute about the
1640 - 1700	Topics that wave Discussed Today and Advise Them of the Topics to be
	Discussed Tomorrow
1700	End of Day Three
1700	

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Day 4	
0730 - 1030	Personal Protective Equipment
0750 - 1050	General (Introduction; Types of PPE; PPE Programmes)
1030 - 1045	Break
1045 – 1245	Personal Protective Equipment (cont'd) Respiratory Protective Equipment (Introduction; General Use Limitations; Types of Respirators; Selection and Use of Respirators; Training; Wear Time; Respirator Fit Testing; Cleaning Maintenance and Storage; Medical Evaluation; Record Keeping; Evaluation)
1245 - 1330	Lunch
1330 - 1500	Personal Protective Equipment (cont'd) Chemical Protective Clothing (Introduction; Types of Chemical Protective Clothing; Chemical Protective Clothing Materials; Standard CPC Test Procedures; Use of Chemical Protective Clothing; Inspection and Storage; CPC Limitations; Training)
1500 - 1515	Break
1515 - 1640	Personal Protective Equipment (cont'd) Gloves & Dermal Care (Dermal Exposure; Occupational Protective Gloves; Protection Against Chemicals; Selection of Gloves; Types of Gloves; Overall Glove Selection Process; Limitations of Gloves; Glove Removal; Reuse and Laundering of Gloves; Training) • Eye and Face Protection
1640 - 1700	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1700	End of Day Four



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Day 5	
	Administrative Elements Introduction • Legislative Requirements • Reducing Periods of Exposure •
0730 - 1030	Scheduling of Work • Maintenance and Housekeening • Role of Eating. Smoking
0,000 1000	and Drinking • Changing Facilities and Clothing Storage and Laundering •
	Showers and Wash Hand Basins and their Role in Preventing Exposure
1030 - 1045	Break
	Administrative Elements (cont'd)
	<i>Use of Creams and Lotions</i> • <i>Control of Access to Hazardous Areas</i> • <i>The Role of</i>
1045 - 1245	Assessment, Measurement et al. • Role of Written Operating Procedures,
1010 1210	<i>Permits to Work Etc</i> • <i>Role of Occupational Hygiene Programmes in Continuing</i>
	Control • Importance of Education, Instruction and Training • Emergency
	Procedures and First Aid in High Risk Areas • Training
1245 - 1330	Lunch
	Practical Applications of Control Strategies
1245 - 1500	Introduction • Addition of Hydrated Lime to Cyanide Tanks • Respirable Silica
	Exposure During Sand Blasting • Ventilation in a Laboratory Sample Room
1500 - 1515	Break
	Practical Applications of Control Strategies (cont'd)
1515 1645	Mercury Exposure in a Gold Room • Manufacture of Phthalic Anhydride •
1515 - 1045	Control of Powders in the Pharmaceutical Industry • Diesel Particulate in
	Underground Coal Mines • References
	Course Conclusion
1645 - 1700	Using this Course Overview, the Instructor(s) will Brief Participants about the
	Course Topics that were Covered During the Course
1700 – 1715	POST TEST
1715 – 1730	Presentation of Course Certificates
1730	End of Course

MOCK Exam

Upon the completion of the course, participants have to sit for a MOCK Examination similar to the exam of the Certification Body through Haward's Portal. Each participant will be given a username and password to log in Haward's Portal for the MOCK exam during the 30 days following the course completion. Each participant has only one trial for the MOCK exam within this 30-day examination window. Hence, you have to prepare yourself very well before starting your MOCK exam as this exam is a simulation to the one of the Certification Body.

Day 6: OHTA BOHS Online Exam (to be scheduled within 30 days of course completion)

0900 - 0915	OHTA-BOHS Exam Registration/Briefing
0915 - 1145	OHTA-BOHS Exam
1145 - 1200	Closing Ceremony
1200	End of Exam



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Simulator (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using our state-of-the-art "PHA/HAZOP", "Workplace Risk Assessment" "Industrial Hygiene Virtual Laboratory" and "CIHprep V9.0" simulators.



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-			Lighting		v/	1/10	Dotaile //	Commonte	p to Actions 1	00	O Ligh	iting inliness a	ind Waste		
5.1	Does the wo	orkplace have s	uitable and suf	icient lighting			Details / G	omments			O ROO	m Dimens	ions / We	orkstatio	on
	(not obscure	ed, for example	by stacked goo	ids)	1						O Floo	ors and Tr	affic Rout	tes	
											O Wir	ndows & T	ranspare	s nt or Tra	insluent
5.2	So far as is r	easonably prac	ticable, is natur	al light used?		~					O Doo	ors and Ga	ates		
	(people ger	erally prefer to	work in natura	l light)							O Esca	alators an itary and	nd Moving Washing	Walkwa Facilitie	ays/ IS
											O Drin	nking Wat	er/		
5.3	Are all stain	wells and walky	ways lit and wit	hout shadow?		~					Acc	omodatio	n for Clot	hing	
	(snadows sr	ould not be cas	st on stair tread	5)							O Fac	ilities Clo ety Notice	thing / Re Boards /	st & to E 1st Aid	at Meals
22						_				_	O Wo	rk Equipm	ent / MH	Operatio	on
5.4	Is emergend sudden loss	y lighting requi	present a serio	: provided (wi us risk)	1ere	~					O Mis	cellaneou	us Health	Hazards	(p1)
				5685557/I							O Mis	cellaneou	is Health	Hazards	(p2)
5.5	Is all lightin	a equipment re	gularly cleaner	and						_	O Sign	n-off			
	maintained	e (also see sect	ion 2)	2583/Tr	-	1231					O Not	es			
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CIHprep V9.0		
ools Help		
	set: 2538	
Question Number: 894 Engineering Controls/Ventilation		
A room 50 x 20 x 10 feet contains 100 ppm of CCl ₄ . Ho room?	much time is required to lower the concentration to 2	15 ppm if a blower generating 300 cfm is used to clear the
A) 46.0 min		
B) 11.1 min		
C) 7.5 min		
D) 54.0 min		
You did not answer this question.		
The correct answer is: A		
t = log (C/C _o)(- 2.303)(P/Q)		
Substituting we get: t = log (25/100)(-2.303)(10,000 ft ³ /300 cfm) t = 46 min		
Where:		
P = Room volume		
C = Ending concentration		
Q = Flow		
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Course Coordinator

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