

COURSE OVERVIEW HE0918
Occupational Hygiene Certification Program
OHTA201: Basic Principles of Occupational Hygiene
(Accredited by the Occupational Hygiene Training Association - OHTA)

Course Title

Occupational Hygiene Certification Program:
 OHTA201: Basic Principles of Occupational Hygiene
(Accredited by the Occupational Hygiene Training Association - OHTA)



H-STK® INCLUDED

Course Reference

HE0918

Course Date/Venue

Session 1: January 12-16, 2025/ Al Khobar Meeting Room, Hilton Garden Inn, Al Khobar, KSA
 Session 2: July 06-10, 2025/ Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

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-the-art simulators.



The course is the essential training for the Foundation Level qualification. It is designed to be delivered as a 5-day taught programme including participant's assessment.



The aim of the course is:-

- To provide a practical understanding of occupational hygiene for people who need to manage or advise on workplace health issues
- To provide a foundation from which to undertake more in-depth study in individual occupational hygiene subjects
- To inform and enthuse students about the contribution of occupational hygiene to worker health

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

- Value occupational hygiene in improving worker health and understand the role of the occupational hygienist
- Understand health hazards encountered in the workplace and identification techniques (foundation level)
- Identify sources and potential routes of occupational exposure (foundation level)
- Understand the basics of which exposure assessment, measurement processes, and control methods we use (foundation level)
- Manage occupational hygiene programmes in your work environment

This course is designed to provide participants with a detailed and up-to-date overview of OHTA201: Basic Principles in Occupational Hygiene. It covers the human physiology and industrial diseases including the fundamentals of toxicology; the examples of hazardous substances / processes; assessing health risks, measuring airborne contaminants and hygiene standards and occupational exposure limits; conducting biological monitoring and health surveillance; and the general approaches to the control of risks to health.

During this interactive course, participants will learn the ventilation, asbestos, biological hazards, noise and vibration; the principles, evaluation and control of thermal environment; the lighting and non-ionising radiation, ionising radiation and ergonomics; and the behaviour and culture, work-related stress and careers in occupational hygiene.

Course Objectives

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

- Achieve OHTA Certificate in OHTA201: Basic Principles in Occupational Hygiene
- Discuss the human physiology and industrial diseases including the fundamentals of toxicology
- Determine the examples of hazardous substances / processes
- Assess health risks, measure airborne contaminants and discuss hygiene standards and occupational exposure limits
- Conduct biological monitoring and health surveillance and apply general approaches to the control of risks to health
- Recognize ventilation, asbestos, biological hazards, noise and vibration
- Explain the principles, evaluation and control of thermal environment
- Discuss the lighting and non-ionising radiation, ionising radiation and ergonomics
- Recognize behaviour and culture, work-related stress and careers in occupational hygiene

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Howard Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides an overview of all significant aspects and considerations of basic principles in occupational hygiene 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 will find this course beneficial.

Course Fee

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|-----------|--|
| Al Khobar | US\$ 7,500 per Delegate + VAT . This rate includes H-STK® (Howard Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day. |
| Dubai | US\$ 7,500 per Delegate + VAT . This rate includes H-STK® (Howard Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day. |

Exam 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.

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.

Course Certificate(s)

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

OHTA Certificate(s)

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





- (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.

* Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology *



Haward Technology Middle East
Continuing Professional Development (HTME-CPD)

CEUs

CEU Official Transcript of Records

TOR Issuance Date: 15-Nov-23
HTME No. 74851
Participant Name: Waleed Al Habeeb

| Program Ref. | Program Title | Program Date | No. of Contact Hours | CEU's |
|--------------|--|----------------------|----------------------|-------|
| HE0918 | Occupational Hygiene Certification Program OHTA201: Basic Principles of Occupational Hygiene <i>(Accredited by the Occupational Hygiene Training Association - OHTA)</i> | November 11-15, 2023 | 40 | 4.0 |

Total No. of CEU's Earned as of TOR Issuance Date **4.0**

TRUE COPY

Jaryl Castillo
 Academic Director

Haward Technology has been approved as an Accredited Provider by the International Association for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2018 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET 1-2018 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 Association 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 is accredited by




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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 OHTA201 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.

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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 2018-1 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 2018-1 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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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.

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, OTHA-BOHS 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 **Measurement of Hazardous, Incident Command & Report Writing, HAZOP, HAZMAT, HAZID, Health Risk Assessment, Modern Safety Risk Management, Process Risk Management, Root Cause Analysis** Techniques, , **Industrial Hygiene, Occupational Health, Safety & Environment,**

HSE Management System Development & Implementation, Handling Hazardous Chemicals, 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. 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.



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

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| 0730 – 0745 | Registration & Coffee |
| 0745 – 0800 | Welcome & Introduction |
| 0800 – 0815 | PRE-TEST |
| 0815 – 0930 | Human Physiology & Industrial Diseases Skin (Dermatitis, Physical Damage, Biological Agents, Cancer, Other Effects) • Musculoskeletal System • Nervous System • Endocrine System • The Circulatory System (The Blood) • Respiratory System • The Gastrointestinal Tract • The Liver • Urinary System • The Eye |
| 0930 – 0945 | Break |
| 0945 - 1230 | Fundamentals of Toxicology Introduction • Terms • Basic Concepts (Physical Form; Dose; Route of Entry / Absorption; Metabolism; Excretion; Response to Toxins) • Stages of Toxicological Evaluation (What Adverse Effects can a Chemical Cause?; Are the Effects Seen in Animals Relevant to Man?) • Safety Data Sheets |
| 1230 - 1330 | Lunch |
| 1330 – 1530 | Examples of Hazardous Substances / Processes Crystalline Silica • Machine Made Mineral Fibre (MMMMF) • Welding Fume • Isocyanates • Wood Dust • Pharmaceuticals • Petroleum Products • Mining – Mineral & Metal Extraction • Metal Use & Refining • Diesel Exhaust • Nanoparticles |
| 1530 - 1545 | Break |
| 1545 – 1650 | Assessment of Health Risks Introduction • Hazard & Risk • Assessment of Health Risks (Define the Extent of the Assessment; Gather Information; Assess the Health Risk(s); Specify Any Action Required; Record the Risk Assessment; Carry Out the Actions; Review the Risk Assessment; Communication / Consultation) • Expert Systems & Control Banding |
| 1650 – 1700 | Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow |
| 1700 | End of Day One |

Day 2

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| 0730 – 0930 | Measurement of Airborne Contaminants General Principles (Sampling Techniques; Types of Sampling) • Sampling Equipment • Sampling Records • Sampling for Airborne Particulates (Particle Size; Elements of a Sampling System) • Sampling for Gases & Vapours (Sampling Equipment; Sampling Methods; Fixed Position Sampling) • Sampling Strategies (Identification of Airborne Contaminants; Leakages & Spillages; Assessment of the Effectiveness of Control Measures) • Methods of Analysis (Organic Vapours; Inorganic Gases; Organic Particulate Matter; Metals & their Compounds; Mineral Dusts; Diesel Particulate Matter (Measured as Elemental Carbon)) • Calibration & Quality Control |
| 0930 - 0945 | Break |





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| 0945 - 1230 | Hygiene Standards & Occupational Exposure Limits Introduction • Setting of Hygiene Standards & Exposure Limits • Hygiene Standards for Chemical Agents (Quantifying Airborne Concentrations of Chemical Agents; Categories of Exposure Limits; "Skin" Notation; Effects of Mixed Exposures; Calculation of Exposure with Regard to the Specified Reference Periods) • Biological Monitoring Guidance Values |
| 1230 - 1330 | Lunch |
| 1330 - 1530 | Biological Monitoring & Health Surveillance Urine • Blood • Skin • Breath • X-Rays • Neurological Tests • Audiometry • Lung Function Tests (Lung Volume & Forced Expiratory Volume (FEV1); Airways Resistance) |
| 1530 - 1545 | Break |
| 1545 - 1650 | General Approaches to the Control of Risks to Health Types of Control Measures (Elimination / Substitution; Isolation; Segregation; Engineering Controls; Administrative Controls; Information, Instruction & Training; Personal Protective Equipment (PPE)) |
| 1650 - 1700 | Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow |
| 1700 | End of Day Two |

Day 3

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| 0730 - 0930 | Ventilation Types of Control • General Features of an LEV System (General Considerations; Inlets / Hoods; Ductwork; Air Cleaners; Air Movers; Discharge to Atmosphere) • Maintenance, Examination & Testing of Ventilation Systems (Legal Requirements; Regular Maintenance; Thorough Examination & Testing) |
| 0930 - 0945 | Break |
| 0945 - 1230 | Asbestos Background (Types of Asbestos; Properties of Asbestos; Uses of Asbestos; Airborne Asbestos Fibres; Exposure to Asbestos Fibres) • Health Hazards of Asbestos • Asbestos Register (Function of the Asbestos Register) • Remedial Treatment of Asbestos Containing Materials (Asbestos Removal; Asbestos Repair / Encapsulation) • Asbestos Management Programme |
| 1230 - 1330 | Lunch |
| 1330 - 1530 | Biological Hazards Introduction to Biological Hazards • Legionella & Humidifier Fever (Legionella; Humidifier Fever) • Blood Borne Diseases (Hepatitis B; Hepatitis C; HIV - (Human Immuno-Deficiency Virus)) • Zoonoses (Anthrax (ACDP Group 3); Leptospirosis (Hazard Group 2); Salmonellosis); Q Fever) • Moulds • Pandemics • Genetic Modification |
| 1530 - 1545 | Break |
| 1545 - 1650 | Noise Background • The Ear • Audible Sound • Health Effects of Excessive Noise • Addition of Sound Levels • Frequency Analysis • Decibel Weightings • Equivalent Continuous Sound Level (LEQ) • Noise Dose (Calculating Lep, d) • Noise Limits (Other Limits) • Hearing Conservation (Assessment of Workplace Noise; Control of Workplace Noise; Protection of Personnel at Risk; Information Instruction & Training) |
| 1650 - 1700 | Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow |
| 1700 | End of Day Three |





Day 4

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| 0730 – 0930 | Vibration <i>Introduction (Frequency; Amplitude; Acceleration (Measure of Vibration Intensity)) • Exposure to Vibration • Health Effects of Vibration • Measurement of Vibration</i> |
| 0930 - 0945 | <i>Break</i> |
| 0945 - 1230 | Thermal Environment: Principles, Evaluation & Control <i>Human Response to the Thermal Environment (Physiological Responses to Heat; Physiological Responses to Cold; Psychological Responses to the Thermal Environment) • Heat Transfer from the Body • Evaluating the Thermal Environment (Metabolic Rate; Personal Insulation; Duration of Exposure; Dry Bulb Temperature; Globe Temperature; Mean Radiant Temperature; Air Velocity; Moisture Content; Personal Monitoring) • Heat Stress Indices • Thermal Comfort • Cold Stress • Controlling the Thermal Environment (Modifying Comfort Conditions; Modifying Hot Environments; Modifying Cold Environments) • Specific Environmental Problems (High Radiant Components; High Humidity Conditions; Hot Dry Conditions)</i> |
| 1230 - 1330 | <i>Lunch</i> |
| 1330 – 1530 | Lighting & Non-Ionising Radiation <i>Introduction • Types of Non-Ionising Radiation (Ultraviolet (UV) Radiation; Infrared (IR) Radiation; Laser Radiation; Microwave Radiation; Other Effects of Non-Ionising Radiation) • Evaluation of Non-Ionising Radiation • Lighting (Recognition; Evaluation of Illumination; Glare; Good Illumination)</i> |
| 1530 - 1545 | <i>Break</i> |
| 1545 – 1650 | Ionising Radiation <i>Nature • Radionuclides (Units of Ionising Radiation) • External & Internal Radiation • Levels of Radiation • Biological Effects of Ionising Radiation • Uses of Radiation • Measurement of Radiation • Radiological Protection • Health Surveillance</i> |
| 1650 – 1700 | Recap <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today & Advise Them of the Topics to be Discussed Tomorrow</i> |
| 1700 | <i>End of Day Four</i> |

Day 5

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| 0730 – 0930 | Ergonomics <i>Introduction • Workplace Risk Assessment • Manual Handling (The Back; Conducting a Manual Handling Assessment; Methods of Reducing Risk; Information, Instruction & Training) • Repetitive Tasks • Display Screen Equipment (DSE) (Possible Effects from Using DSE) • Conducting an Assessment • Minimum Requirements for Workstations • Administrative Controls</i> |
| 0930 - 0945 | <i>Break</i> |
| 0945 - 1230 | Behaviour & Culture <i>Impacts of Behaviour in Occupational Hygiene • Motivation & Behaviour Modification • Health & Safety Culture</i> |
| 1230 - 1330 | <i>Lunch</i> |
| 1330 – 1530 | Work-Related Stress <i>Symptoms of Stress • Assessment of Stress • Management of Stress</i> |
| 1530 - 1545 | <i>Break</i> |





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| 1545 - 1615 | Careers in Occupational Hygiene <i>Occupational Hygiene Practice (In-House Services; Consultancy; State Agencies; Research & Teaching) • Implications for Hygienists • The Hygienist as a Manager • Personal Development (Join a Society; Get Involved; Build your Network) • Ethics</i> |
| 1615 - 1630 | Course Conclusion |
| 1630 - 1645 | POST-TEST |
| 1645 - 1700 | <i>Presentation of Course Certificates</i> |
| 1700 | <i>End of Course</i> |

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.

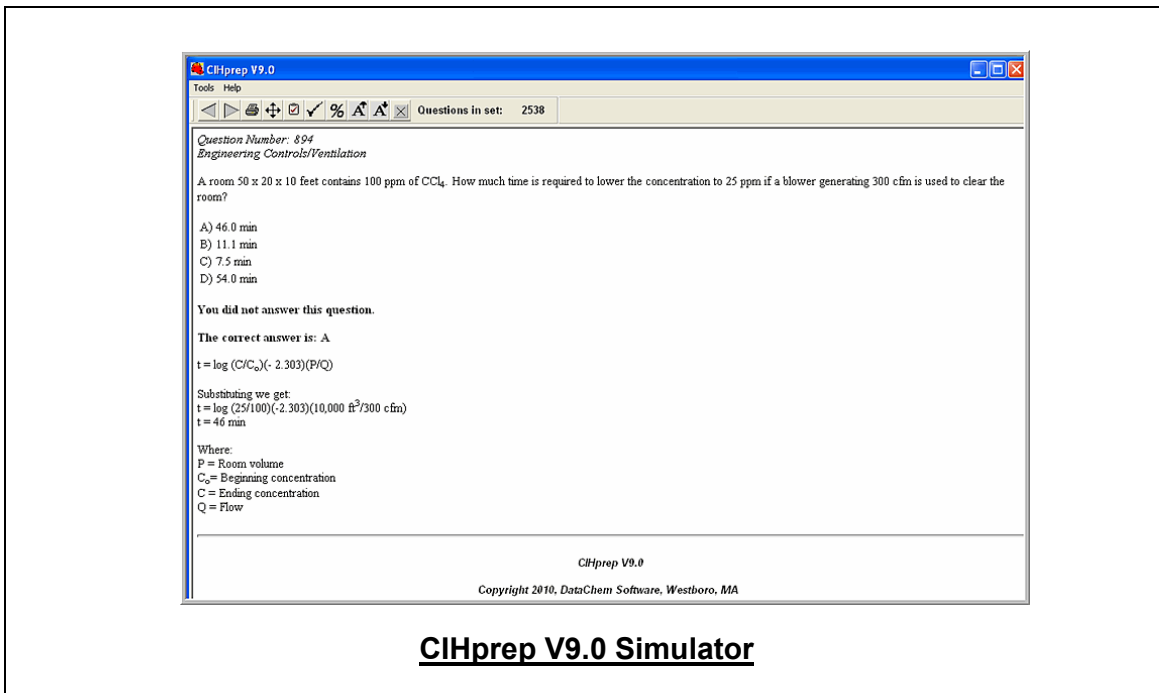
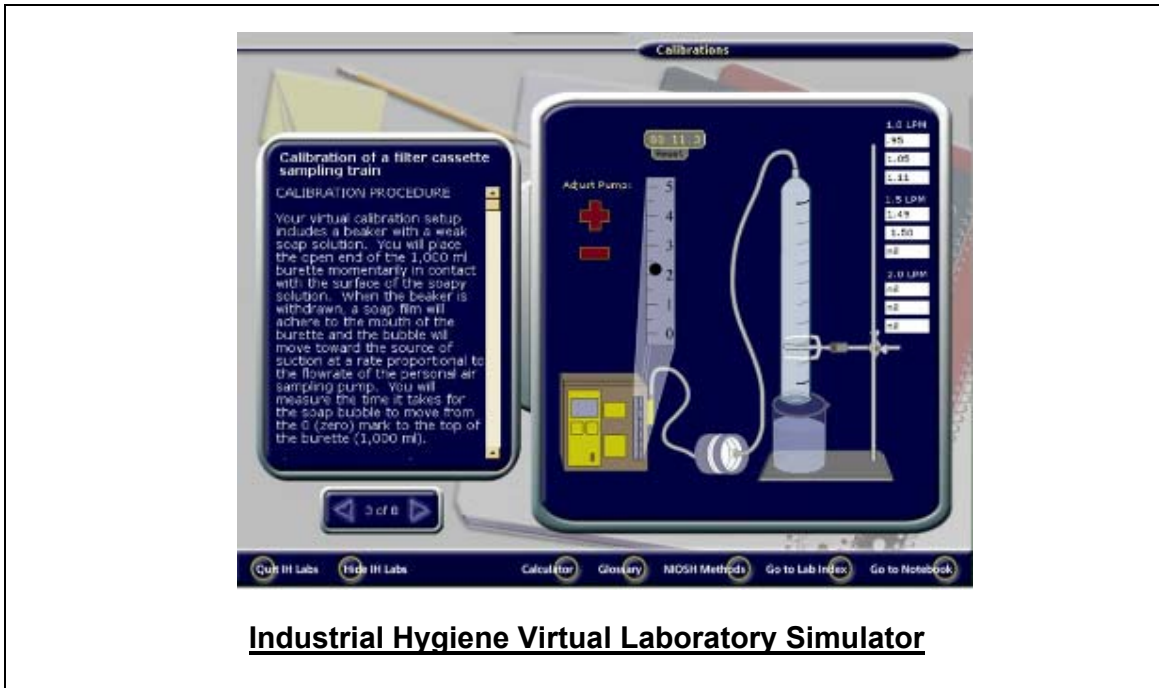
Day 6: OHTA BOHS Online Exam (to be scheduled within 30 days of course completion)

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| 0900 - 0915 | <i>OHTA-BOHS Exam Registration/Briefing</i> |
| 0915 - 1145 | <i>OHTA-BOHS Exam</i> |
| 1145 - 1200 | <i>Closing Ceremony</i> |
| 1200 | <i>End of Exam</i> |



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 the state-of-the-art “Industrial Hygiene Virtual Laboratory Simulator”, “CIHprep V9.0 Simulator”, “Extech 445580: Humidity/Temperature Pen” and “Digital Sound Level Meter”.





Course Coordinator

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