COURSE OVERVIEW HE0913
Certified Occupational Health, Safety & Industrial Hygiene

Course Title
Certified Occupational Health, Safety & Industrial Hygiene

Course Date/Venue
November 17-21, 2024/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Course Reference
HE0913

Course Duration/Credits
Five days/3.0 CEUs/30 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 covers the importance of occupational health, safety and industrial hygiene in the workplace with special emphasis on industrial plants. It presents the majority of the latest aspects in risk management and accident investigation. The course highlights how to identify safety training needs. Near miss, incident and accident reporting is handled to show how these statistics can help to prevent losses to the company and employees.

Industrial hygiene will be thoroughly discussed in this course including the anticipation, recognition, evaluation and control of health hazards in the workplace. The course will explain the necessity for backup information through laboratory research and field studies in all aspects of recognition, evaluation and control in order to assume a healthful working environment.

The need for formal working procedures is stressed so that all employees have conformity in their operations. A change in employee attitude is needed to improve the safety situation in a plant. The management of hazardous materials is covered by giving full details of storage, handling and safe disposal of spills.

Dangerous operations relating to confined space entry, scaffolding, hot work and gases are discussed in detail. A number of case histories will be covered to analyze the reasons for accidents and how they could have been prevented. The types and uses of safety equipment and personal protective equipment are also discussed.

Safety Programme auditing is covered to show how this can gauge the company's safety status. The "Permit to Work" system is described in detail to show how it can save lives. Emergency procedures are covered to ensure minimum additional loss in the case of an accident. Further, this course covers the training requirement by OSHA for PSM (Process Safety Management) as per OSHA 29 CFR 1910.119.

Course Objectives

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

- Apply and gain an in-depth knowledge on occupational health, safety and industrial hygiene to improve safety conditions in industrial plants and production facilities
- Identify the safety management methodologies including employee attitudes towards safety, staff motivation, safety statistics and reporting, risk assessment, hazard management, emergency procedures, safety training and assessment, permit to work system, etc.
- Recognize accident causation in the workplace and apply industrial preventive measures and safety procedures
- Discuss occupational health including legal requirements, information sources, job description, accident statistics, task analysis, job safety analysis, etc.
- Apply the safety management system in a professional manner
- Practice accident investigation by using safety legislation as it pertains to industrial applications
- Discuss the industrial hygiene including the anticipation, recognition, evaluation and control of health hazards in the workplace
- Follow emergency procedures, safety training and assessments and apply permit to work system to reduce future risk

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 provides an overview of all significant aspects and considerations of occupational health, safety and industrial hygiene for those who are working in hazardous areas like refineries, petrochemical plants, gas processing units, gas gathering units, gas transportation terminals, hazardous materials factories, oil/gas complex (onshore/offshore), power plants, etc. The course is essential for managers, section heads, engineers, superintendents, supervisors, foremen and other staff in the above-mentioned industries. The course is a must for those in-charge of occupational health, safety and industrial hygiene (HSE).

Course Fee

US$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Certificate(s)

(1) Internationally recognized Competency Certificates and Plastic Wallet Cards will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Certificates are valid for 5 years.

Recertification is FOC for a Lifetime.

Sample of Certificates

The following are samples of the certificates that will be awarded to course participants:-

(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 *

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Haward Technology Middle East

Continuing Professional Development (HTME-CPD)

CEU Official Transcript of Records

TOR Issuance Date: 09-Feb-17

HTME No. PAR11317

Participant Name: Wasef Al Hajri

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE0913	Certified Occupational Health, Safety & Industrial Hygiene	February 05-09, 2017	30	3.0

Total No. of CEU's Earned as of TOR Issuance Date **3.0**

TRUE COPY

Maricel De Guzman
Academic Director

Haward Technology has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2013 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 1-2013 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

Certificates are accredited by the following international accreditation organizations: -

- 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 **3.0 CEUs** (Continuing Education Units) or **30 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.

- 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.

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.

Accommodation

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

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 Christian is an **International Expert** in **Safety**, **Health**, **Environmental** and **Quality** with over **25 years** of practical and industrial experience in **Lifting & Rigging Equipment HAZOP**, **HAZWOPER**, **HAZMAT**, **HAZCOM**, **PHA** (**Process Hazard Analysis**), **FMEA**, **HAZID**, **ISO 14001**, **OHSAS 18001**, **ISO 9001**, Process Safety Management (**PSM**), Safety, Health, Environmental & Quality Management (**SHEQ**), **Behavioral Safety Management**, **Industrial Hygiene**, **Human Factors Engineering**, **Risk Assessment**, Fire Fighting, Rope Rescue Operations, Emergency Response within process industries. He is currently the **President** of **NKWE** and spearheads the companies major projects and business ventures, where he specializes in the areas of **SHEQ** solutions, **ISO**, **Quality Control** and **OSHA systems**. Previously, he has had much on–hand experience in the initiation and management of projects (technical as well organizational development) including involvement in **design of process plants**; **the commissioning & decommissioning** of process plants; the **operational and financial responsibility** for large process operations; **risk management**; **operational and maintenance management**, **crisis and emergency management**, **accident investigation**, **risk assessment**, **hazard identification** and **emergency preparedness & response** (oil spillage and gas explosions).

Much earlier in his career, Mr. Christian was a **HAZOP Team Leader** for numerous **HAZOP** studies and he has further managed the **Health, Safety & Environmental** and **Quality** requirements of a large process company. This included responsibilities as an auditor for compliance against **SHEQ standards**, **ISO standards** and the **Fatal Risk Control Protocols**. He then facilitated the development and implementation of the above standards as a group and at site level as part of the SHEQ council. Moreover, he established, trained and led a Rope rescue team and a high level emergency care clinic and ambulance service for many years. He still abseils recreationally and leads adventure groups during abseiling activities and serves as a rescue team member for mountain and water emergencies.

During his career life, Mr. Christian has gained his practical and field experience through his various significant positions as the **Plant Manager**, **Project Metallurgist**, **Metallurgist**, **HSE Team Leader**, **SHEC Superintendent**, **Mentor**, Instructor/Trainer, Acting **Technical Manager**, **Process Plant Superintendent**, Acting **Project Leader**, Acting **Plant Superintendent**, Appointed **Health & Safety & Environmental Superintendent**, Production Technician, Acting **Senior Shiftsman**, Foreman and Learner – Official Extraction Metallurgy from various companies such as the NKWE Consulting, SAMANCOR, Middleburg Mine Services (Pty) Ltd., Koomfontein Mines, Emelo Mine Services, Gencor Group and South African Defence Force.

Mr. Christian has a **Postgraduate Studies** in **Advanced Executive Programme** and a **National Higher Diploma** (**NHD**) & a **National Diploma** in **Extraction Metallurgy**. He is also a **Certified Auditor** in **OHSAS 18001**, **ISO 14001** & **ISO 9001**, a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**), a **Six Sigma Black Belt Coach** and holds a Certificate in Facilitate Learning Using a Variety of Given Methodologies **NQF Level 5** (**EDTP-SETA**) as a **Certified Facilitator**. He has further delivered innumerable courses, trainings, workshops and conferences globally.

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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: ***Sunday, 17th of November 2024***

0730 – 0745	*Registration & Coffee*
0745 – 0800	*Welcome & Introduction*
0800 - 0815	***PRE-TEST***
0815 - 0930	***Outlines of Safety & Loss Control & Maintenance of HSE Standards*** *Maintenance of Safety Standards ● Moral-The Size of the Problem ● Costs of Accidents & Ill-Health ● Insurance, Costs & Liabilities ● HSE: The Cost of Accidents at Work ● Employer's Responsibility ● Regulatory Frameworks ● Organisational Roles & Responsibilities ● Roles & Responsibilities ● Regulatory Frameworks ● The Importance of Safety ● Understanding Hazards ● The Biggest Hazard is Behavior & Attitude ● Involvement ● Auditing–Essential Elements to Verify*
0930 – 0945	*Break*
0945 – 1100	***HSE Management*** *Health & Safety Policies ● What is a Health and Safety Policy? ● The Three Elements of a H&S Policy Document ● The Statement of Intent ● The Organisation ● The Organisation–Who Does What? ● Arrangements-How it's Done ● Arrangements ● Health & Safety Policies ● International Certificate ● The Organisation-Culture ● Health & Safety Culture ● The Relationship Between Attitude & Safety ● Negative Culture*
1100 – 1230	***HSE Management (cont'd)*** *Health & Safety Culture ● Culture-the Four-Cs ● Organizing-Control ● Communication ● Safety Signs & Signals ● Definitions Communication ● The Cycle of Communication ● The Environment of Commutation ● Forms of Communication ● Methods of Communication ● Organising-Cooperation ● Organising-Consultation ● Functions of Safety Committees*
1230 – 1245	*Break*
1245 – 1420	***HSE Management (cont'd)*** *Organising-Consultation ● Consultation-A Typical Question ● What is Competence? ● Training ● Training (Most Effective Methods) ● Training (Lesser Effective Methods) ● Understanding Safety Statistics ● Emergency Procedure Basics ● Risk Assessment & Hazard Scans ● Syndicate Group Exercise ● The Impact of PTW on the Lives and Safety of Employees ● Syndicate Group Exercise*
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2: Monday, 18th of November 2024

0730 – 0900	***Measuring Performance*** *Accident Investigation ● Measuring Performance ● Syndicate Group Exercise ● Inspections ● Other Monitoring Methods ● Proactive/Active Monitoring ● Purpose of Monitoring-Summary ● Health & Safety Benchmarking ● Reviewing Performance ● ISRS ● Management Systems ● Auditing ● Audit ● HSE Audit Steps (IMS/ISO) ● Audit Areas ● Risk Assessment*
0900 – 0915	*Break*
0915 – 1100	***Measuring Performance (cont'd)*** *ISO 31000 ● Introduction ● Suitable & Sufficient" " ● The 5 Steps of Qualitative Risk Assessment ● Step 1-Identify the Hazards ● Step 2-Who Might be Harmed ● Step 3–Evaluate the Risk ● Step 4-Record Your Findings Record ● Step 5-Review of Assessment ● Alternative Syndicate Group Exercise ● Risk Identification ● Safe Systems of Work ● Developing a SSW ● Occupational Health ● Occupational Health Programme Syndicate Work*
1100 – 1230	***Job Safety Analysis & Process Safety Management (PSM) and Risk Management*** *Piper Alpha, North Sea: 6 July 1988 ● BP Refinery, Texas, U.S.A.: 23 March 2005 ● These are Examples of Devastating Results when the Principles of Process Safety Management are not Implemented or Followed by Companies ●* *Video: Imperial Sugar ● Why Do Accidents Happen? ● Bird Accident Triangle ● Some Statistics ● Process Safety Management ● Purpose of the PSM Standard ● PSM Elements ● Employee Participation ● Process Safety Information ● Process Hazard Analysis (PHA) ● Operating Procedures ● Training ● Contractors ● Pre-Startup Safety Review*
1230 – 1245	*Break*
1245 – 1420	***Job Safety Analysis & Process Safety Management (PSM) and Risk Management (cont'd)*** *Mechanical Integrity ● Hot Work Permit ● Management of Change ● Incident Investigation ● Emergency Planning and Response ● Compliance Audits ● Trade Secrets ● Risk Management ● What do We Mean by 'Risk'? ● Risk ● Risk Assessment Stages ● R.E.A.C.H ● Identify-What Can Go Wrong? ● How Big (Serious) Will The Consequences be? ● How Often (Likely) Will it Occur? ● Prevention (Safeguards) ● What Should We do? ● Is It Worth the Cost? ● Risk Concepts ● Principle of Economics ● Definition of ALARP ● Levels of Risk and ALARP ● The Importance of Engineering Control ● Hierarchy of Control ● Why is One Sign Often Ignored, the Other One Often Followed?*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3: Tuesday, 19th of November 2024

0730 – 0900	***Process Hazard Analysis (PHA) & Insurance Risk Information*** *Introduction ● What is to be Reviewed? ● Process Hazard Analysis ● Hazard Reduction Techniques ● Risk Assessment Options ● 8 Steps for Risk Management ● Risk Management ● Prepare for the Review ● What is a PHA? ● What a PHA is not? ● Typical Staff Effort (Depending on the Scope of the Study) ● Checklist Characteristics ● Sample Checklist ● What-If Characteristics ● Sample What-If Analysis Worksheet*
0900 – 0915	*Break*
0915 – 1100	***Process Hazard Analysis (PHA) & Insurance Risk Information (cont'd)*** *HAZOP Study ● Objectives of HAZOP ● HAZOP Process ● Principle of the HAZOP Examination Phase ● Creating Deviations ● Causes of Deviations ● Sample HAZOP Worksheet ● FMEA Characteristics ● Failure Mode and Effect Analysis (FMEA) ● Sample FMEA Worksheet ● Fault Tree Analysis (FTA) ● FTA Example ● Event Tree Analysis (ETA) ● Layers of Protection Analysis (LOPA)*

1100 – 1230	***Permits-to-Work*** *Permits-to-Work ● Control of Contractors ● Relationship – Client & Contractor ● Personal Protective Equipment ● Types of PPE ● Types of PPE – Respiratory ● Disadvantages & Limitations ● PPE at Work ● Work in Confined Spaces ● What is a 'Confined Space'? ● Specified Risks ● Fire & Explosion - Confined Space ● Asphyxiation - Confined Space*
1230 – 1245	*Break*
1245 – 1420	***Permits-to-Work (cont'd)*** *Over-Heating & Drowning ● Other Hazards in Confined Spaces ● Confined Spaces ● Risk Assessment Factors ● Main Elements of the SSW ● Emergency Arrangements ● The Practical Exam: Syllabus Guide ● A Typical Report Format ● First-Aid ● Factors to Consider - First-Aid ● First -Aid Facilities ● First-Aid Kit*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4: ***Wednesday, 20th of November 2024***

0730 - 0900	***Types of Hazardous Agents*** *Types of Hazardous Agents ● Hazardous Substances Classification ● Categories of Danger ● Physical Forms ● Routes of Entry ● The Concept of Target Organs ● Respiratory System ● Respiratory Defences ● Cilia ● Pneumoconiosis ● Skin Structure & Functions ● Dermatitis ● Corrosive Attack ● Diseases Caused by Chemicals ● Diseases – Biological Agents ● Diseases Caused by Biological Agents ● Syndicate Group Exercise ● Controlling Substances Hazardous to Health ● Substances Hazardous to Heath ● Properties of Hazardous Substances ● Sources of Information (Hazard Communication) ● Safety Data Sheets ● Classification & Labelling*
0900 – 0915	*Break*
0915 – 1100	***Types of Hazardous Agents (cont'd)*** *How to Control Substances Hazardous to Health ● Eight Principles of Good Practice in Handling Hazardous Substances ● Hazardous Substance Assessment - 5 Steps ● Step 1- Gather Information ● Step 2- Evaluate the Risks ● Filter Holder ● Passive Samplers ● Workplace Exposure Limits ● Reference Periods ● For Most Substances ● For Carcinogens, Mutagens and Asthmagens ● Step 3 - Decide What Needs to be Done ● Planning & Implementing Controls ● A Typical LEV System (Local Exhaust Ventilation) ● LEV ● Measuring Performance ● Wind Speed Measurement ● An Introduction to Environmental Issues ● Environmental Protection ● Integrated Pollution Control ● Hazardous Waste?*
1100 – 1230	***The Client & Contractor*** *Revision – the Client & Contractor ● Shared Responsibilities - Joint Occupation ● Principles of Construction ● Specific Construction Risks ● Stacking & Storage ● Flammable & Combustible Materials ● Machinery and Vehicles ● Site Security ● Electricity ● Slips, Trips & Falls ● Working Above Ground Level ● Working at Height ● Roofwork ● What do You Mean – Guardrail? ● Falling Materials ● Guardrails ● Safe Working Practices for Access Equipment ● Putlog Scaffold (No Longer In General Use) ● Basic Components of Scaffolding ● Scaffold Bracing ● Scaffold Ties ● Inspection of Scaffold ● Mobile Tower Scaffolds ● Mobile Elevated Working Platform (MEWPS)*

1230 – 1245	*Break*
1245 – 1420	***The Client & Contractor (cont'd)*** *Ladders ● Safe Use of Ladders ● Practical ● A Typical Report Format ● Excavations ● Prevention of Collapse ● Safe Slope Angles ● Shoring ● Close Sheeting ● Drag Box ● Avoiding Underground Services ● Use of a Cable Locator ● Air Digging ● Barriers & Edge Protection ● Demolition - Hazards and Precautions ● International Certificate ● What Is Stress? ● Work Related Stress ● Effects of Stress ● Ill-Health Effects ● Personal Experiences ● What Causes Stress? ● What Can Employers Do? ● Violence ● Managing Violence ● Lone Workers ● Syndicate Work*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

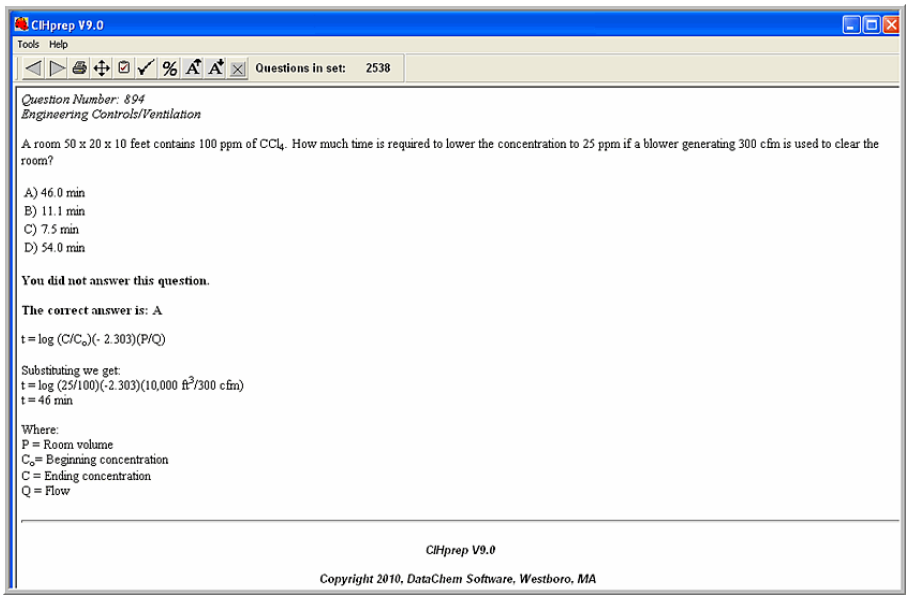
Day 5: Thursday, 21st of November 2024

0730 - 0930	***Emergency Procedures*** *First Aid ● Fire Fighting ● Spillage Management ● Evacuations ● Clearance to Resume Work ● Emergency Drills*
0900 – 0915	*Break*
0915 – 1030	***Training*** *Introduction ● Planned Observations ● Informal Observation ● Planned Observation*
1030 - 1200	***Training (cont'd)*** *Preparing ● Benefits ● Learning/Teaching Guidelines ● Six Step Training System*
1200 – 1215	*Break*
1215 - 1300	***Permit to Work (PTW) System*** *Company Lockout Program & Policies ● Permit To Work Procedure ● Objectives of the PTW System ● Principle Responsibilities for the PTW System ● Permit To Work Procedure*
1300 – 1315	***Course Conclusion***
1315 – 1415	***COMPETENCY EXAM***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

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".

Industrial Hygiene Virtual Laboratory Simulator



CIHprep V9.0 Simulator

Extech 445580: Humidity/Temperature Pen

Noise Monitoring Device (Digital Sound Level Meter)

Course Coordinator
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