

**COURSE OVERVIEW HE0858**  
**Industrial Hygiene Certification Program**  
**OHTA506: Ergonomics Essentials**  
*(Accredited by OHTA)*

**Course Title**

Industrial Hygiene Certification Program: OHTA506: Ergonomics Essentials *(Accredited by OHTA)*



**Course Date/Venue**

Session 1: September 16-20, 2024/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Session 2: November 11-15, 2024/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

**Course Duration**

Training: Five days/3.4 CEUs/34 PDHs  
 Exam: One day/2 Hours  
 Total: 6 Days

**Course Reference**

HE0858

**Course Description**



***This practical and highly-interactive course includes real-life case studies where participants will be engaged in a series of interactive small groups and class workshops.***

This course aims to provide a broad-based introduction to ergonomics (musculo-skeletal disorders, manual handling, etc.) and their application in design of work, equipment and the workplace including social and legal concerns.



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

- Optimize the efficiency and effectiveness of activities in the workplace using ergonomic solutions
- Understand ergonomic risk assessments and appropriate control measures
- Understand the causes of upper limb disorders and how to reduce them
- Understand the impacts of workplace layout and equipment design
- Appreciate environmental aspects of good ergonomic design



The course normally run as a taught course over 5 days (including lectures, tutorials, practical/demonstration sessions, guided reading, overnight questions and examination).

This course is designed to provide participants with a detailed and up-to-date overview of OHTA506: Ergonomics Essentials. It covers the general principles of ergonomics; the history and scope of ergonomics and systems of works; the aims, objectives and benefits of ergonomics and occupational ergonomics; the human characteristics, capabilities and limitations, human error, teamwork, ageing and the role of the ergonomist; the biological ergonomics comprising of body systems, the musculoskeletal system, posture and movement, bio mechanics, anthropometry and work physiology; the perception and cognition, memory, decision making, perception, signal detection and vigilance; the motivation and behavior, work 'stress' preventive and protective measures, work orientation and rest and work breaks; and developing an ergonomics strategy at work through proper commitment and decision-making, macro-ergonomics and participatory ergonomic.

During this interactive course, participants will learn the ergonomics methods and techniques, work design, ergonomics risk management and measurements and information gathering; the nature and causes of manual handling disorders (musculoskeletal disorders) and work-related upper limb disorders (WRULD), WRULD/repetitive strain injuries/cumulative trauma disorders; the principles of workplace and work systems design, workstation and equipment design; the information, displays and controls; the physical factors of the work environment, vision and lighting, noise, thermal environment, vibration, smell, taste and tactile senses and clothing and protective equipment; the standards and social aspects of ergonomics; and the training, experience and skill development, health information and measuring the impact of ergonomics.

### **Course Objectives**

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

- Achieve the OHTA Certificate in OHTA506: Ergonomics Essentials
- Discuss the general principles of ergonomics including the history and scope of ergonomics and systems of works
- Explain the aims, objectives and benefits of ergonomics and occupational ergonomics
- Describe the human characteristics, capabilities and limitations as well as human error, teamwork, ageing and the role of the ergonomist
- Recognize biological ergonomics comprising of body systems, the musculoskeletal system, posture and movement, bio mechanics, anthropometry and work physiology
- Carryout perception and cognition, memory, decision making, perception, signal detection and vigilance
- Apply motivation and behavior, work 'stress' preventive and protective measures, work orientation and rest and work breaks

- Develop an ergonomics strategy at work through proper commitment and decision-making including macro-ergonomics and participatory ergonomic
- Employ ergonomics methods and techniques, work design, ergonomics risk management and measurements and information gathering
- Discuss the nature and causes of manual handling disorders (musculoskeletal disorders) and work-related upper limb disorders (WRULD), WRULD/repetitive strain injuries/cumulative trauma disorders
- Describe the principles of workplace and work systems design including workstation and equipment design
- Explain information, displays and controls and physical factors of the work environment covering vision and lighting, noise, thermal environment, vibration, smell, taste and tactile senses and clothing and protective equipment
- Explain the standards and social aspects of ergonomics covering training, experience and skill development, health information and measuring the impact of ergonomics

### 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 ergonomics 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.

### 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 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:** 14-Nov-23  
**HTME No.** 74852  
**Participant Name:** Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE0858	Industrial Hygiene Certification Program: OHTA506: Ergonomics Essentials (Accredited by OHTA)	November 10-14, 2023	45	4.5

Total No. of CEU's Earned as of TOR Issuance Date **4.5**

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

### Certificate Accreditations


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

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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 **3.4 CEUs** (Continuing Education Units) or **34 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**, 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 **OHTA Modules** (Measurement of Hazardous Substances, Thermal Environment, Noise Measurement & Its Effects, Asbestos & Other Fibers, Control of Hazardous Substances, Ergonomics Essentials, Health Effects of Hazardous Substances), Advanced **Industrial Hygiene, 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 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.

### Training Fee

**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.

### 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.

### 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

0830 – 0845	<i>Registration &amp; Coffee</i>
0845 – 0900	<i>Welcome &amp; Introduction</i>
0900 – 0915	<b>PRE-TEST</b>
0915 - 0930	<b>Introductions &amp; Course Overview</b>
0930 – 1030	<b>Overview of Ergonomics – General Principles</b> <i>Definition • History of Ergonomics • Scope of Ergonomics and Systems of Work • Aims, Objectives &amp; Benefits of Ergonomics • Fitting the Job to the Person &amp; Person to the Job, Occupational Ergonomics • Systems of Work: Seeing the Whole Picture • Human Characteristics, Capabilities &amp; Limitations • Human Error • Teamwork • Ageing • The Role of the Ergonomist</i>
1030 - 1045	<i>Break</i>
1045 - 1245	<b>Overview of Ergonomics - Biological Ergonomics</b> <i>Body Systems • The Musculoskeletal System • Posture &amp; Movement • Biomechanics • Anthropometry • Applying Work Physiology: Body Metabolism, Work Capacity &amp; Fatigue</i>
1245 - 1330	<i>Lunch</i>
1330 - 1500	<b>Overview of Ergonomics - Psychology at Work</b> <i>Perception &amp; Cognition • Memory • Decision-making • Perception of Risk • Signal Detection Theory • Vigilance • Motivation &amp; Behaviour • Work 'Stress' – Causes, Preventative &amp; Protective Measures • Work Organisation – Shift Work &amp; Overtime • Rest &amp; Work Breaks</i>
1500 - 1515	<i>Break</i>
1515 - 1615	<b>Developing an Ergonomics Strategy at Work</b> <i>Culture of an Organisation – Commitment &amp; Decision-making • Macro-ergonomics &amp; Participatory Ergonomic Teams • Ergonomics at the Design Stage • Developing Ergonomics, Professional Ergonomists &amp; Competence • Seeing the Whole Picture</i>
1615 - 1650	<b>Overnight Questions</b>
1650 – 1700	<b>Recap</b> <i>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</i>
1700	<i>End of Day One</i>

#### Day 2

0830 – 0900	<b>Review of Overnight Questions</b>
0900 - 1030	<b>Ergonomics Methods &amp; Techniques - Work Design</b> <i>Allocation of Functions • Task Analysis • Work Organisation Factors to Consider in Allocation of Function • Problems Arising from Poor Work Design • User Trials • Problem Solving – Scientific Method</i>
1030 – 1045	<i>Break</i>



1045 - 1245	<b>Ergonomics Methods &amp; Techniques – Risk Management</b> Definitions of Hazards & Risk • Ergonomics Risk Identification • Ergonomics Risk Assessment • Controlling Ergonomics Risks • Priorities • Evaluating Controls
1245 – 1330	Lunch
1330 - 1415	<b>Ergonomics Methods &amp; Techniques - Measurements &amp; Information Gathering</b> Ergonomics Standards • Methods of Information Gathering/Measurement • Rating Scales, Questionnaires and Check Lists
1415 - 1500	<b>Standards &amp; Social Aspects</b> Standards • Training, Experience and Skill Development (Acquisition of Physical Skills; Skill Development and Individual Differences; Training Needs Analysis; Types of Training; Education and Training in Ergonomics) • Health Information (Health Information, Legal Duty of Care; Supervision and Records; Measuring Health and Illness) • Measuring the Impact of Ergonomics (Positive Performance Indicators (PPIs); Negative Performance Indicators (NPIs); Injury/illness Rates; Program Evaluation; Strategic Planning; Key Performance Indicators; Program Audits; Accident and Incident Investigation; Cost-Benefit Models)
1500 - 1515	Break
1515 - 1630	<b>Musculoskeletal Disorders - Manual Handling</b> Introduction & Definition • The Nature & Causes of Manual Handling Disorders (Musculoskeletal Disorders) • Low Back Disorders
1630 - 1650	<b>Overnight Questions</b>
1650 – 1700	<b>Recap</b> 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

0830 – 0900	<b>Review of Overnight Questions</b>
0900 - 1030	<b>Musculoskeletal Disorders - Manual Handling – (cont'd)</b> Risk Assessment • Job Design and Training • Principles of Handling and Preventative & Protective Measures
1030 - 1045	Break
1045 – 1245	<b>Musculoskeletal Disorders – Work-Related Upper Limb Disorders (WRULD)</b> The Nature & Causes of WRULD/Repetitive Strain Injuries/Cumulative Trauma Disorders • Risk Assessment • Principles of Control, Preventive & Protective Measures
1245 – 1330	Lunch
1330 - 1500	<b>Musculoskeletal Disorders – Practical</b>
1500 – 1515	Break
1515 - 1630	<b>Workplace, Job &amp; Product Design - Work Environment</b> Principles of Workplace and Work Systems Design • Workstation & Equipment Design • Tools
1630 - 1650	<b>Overnight Questions</b>
1650 – 1700	<b>Recap</b> 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 Three

### Day 4

0830 – 0900	<b>Review of Overnight Questions</b>
0900 - 1030	<b>Workplace, Job &amp; Product Design - Work Environment (cont'd)</b> Chairs and Seating • Vehicle Cabs • Computers (Visual Display Terminals) & Workstation Design
1030 - 1045	Break

1045 - 1245	<b>Workplace, Job &amp; Product Design - Information, Displays &amp; Controls</b> <i>Design Principles for Displays &amp; Controls • Information &amp; Displays • Danger &amp; Information Signals • Controls • Principles of Software Ergonomics</i>
1245 - 1330	<i>Lunch</i>
1330 - 1500	<b>Physical Factors of the Work Environment</b> <i>Vision &amp; Lighting (The Eye &amp; Visual Capabilities; Lighting for Work) • Noise (Ears &amp; Hearing; Noise) • Thermal Environment (Work in Hot or Cold Environments; Measuring the Effect of Heat and Cold)</i>
1500 - 1515	<i>Break</i>
1515 - 1630	<b>Physical Factors of the Work Environment (cont'd)</b> <i>Vibration (Hand-Transmitted Vibration; Whole Body Vibration) • Smell, Taste &amp; Tactile Senses (Olfactory (Smell) Ability &amp; Taste; Skin &amp; Touch) • Clothing &amp; Protective Equipment</i>
1630 - 1650	<b>Overnight Questions</b>
1650 - 1700	<b>Recap</b> <i>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</i>
1700	<i>End of Day Three</i>

### Day 5

0830 - 0900	<b>Review of Overnight Questions</b>
0900 - 1000	<b>Revision</b>
1000 - 1045	<i>Break</i>
1045 - 1245	<b>MOCK Examination</b>
1245 - 1330	<i>Lunch</i>
1330 - 1430	<b>Examination Review</b>
1430 - 1445	<b>Course Conclusion</b> <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course</i>
1445 - 1500	<i>Presentation of Course Certificates</i>
1500	<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 7 days following the course completion. Each participant has only one trial for the MOCK exam within this 7-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 Online Exam (to be scheduled within 30 days of course completion)**

0900 - 0945	<b>OHTA Exam Registration/Briefing</b>
0945 - 1145	<b>OHTA Exam</b>
1145 - 1200	<i>Closing Ceremony</i>
1200	<i>End of Exam</i>

**Practical Sessions**

This practical and highly-interactive course includes the real-life case studies and exercises:-



**Course Coordinator**

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