

**COURSE OVERVIEW HE1942**  
**Industrial Hygiene Certification Program**  
**BOHS-M506: Ergonomics Essentials**  
**(Including Manual Handling & DSE)**

*(Accredited by the British Occupational Hygiene Society - BOHS)*

**Course Title**

Industrial Hygiene Certification Program: BOHS-M506: Ergonomics Essentials (Including Manual Handling & DSE) *(Accredited by the British Occupational Hygiene Society - BOHS)*

**Course Date/Venue**

February09-13,2025/Slaysel 02 Meeting Room, Movenpick Hotel & Resort Al Bida'a Kuwait, City of Kuwait

**Course Reference**

HE1942

**Course Duration**

Five days/3.7 CEUs/37 PDHs

**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 candidates with a broad based introduction to ergonomic principles and their application in the design of work, equipment, and the workplace. Consideration is given to Musculo-skeletal disorders, manual handling, ergonomic aspects of the environment as well as the social and legal aspects. Study of this module is beneficial to persons wishing to qualify for the Certificate of Competence in this subject.

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

- Understand and apply ergonomic principles to the creation of safer, healthier, and more efficient and effective activities in the workplace
- Understand ergonomic risk assessments
- Develop appropriate control measures for ergonomic risk factors
- Describe work-related causes of Musculo-skeletal disorders
- Design a workplace according to good ergonomic principles
- Assess ergonomic aspects of the working environment and work organisation



This course is designed to provide participants with a detailed and up-to-date overview of BOHS-M506: Ergonomics Essentials (Including Manual Handling and DSE). It covers the ergonomics and its scope in relation to work including anatomy, physiology and psychology, with respect to ergonomics building blocks like anthropometry and biomechanics; the observational experimental methods which can be used for investigation, so that work, equipment, and planned systems can be improved for human use; the ergonomics at work, and where to obtain information and advice for using ergonomics; and the work design, ergonomics risk assessment and measurements and information gathering.

During the interactive course, participants will learn the disorders resulting from manual handling and repetitive work and explains the causes, how to assess and prevent them and how to reduce their effect; the workplace layout and equipment design and the principles of workstation and system design, space and workstation design principles and risks to health; the design considerations for visual display unit (VDU) stations including controls, displays and information; the problems in the physical environment in relation to human responses and how to reduce these problems; and the key aspects of health and safety standards, covering ergonomics, social aspects and training, instruction, and supervision requirements.

This course will require at least 45 hours of study time, of which at least 37 hours will be taught (teaching and practical assessments) and 8 hours will be independent (in the candidates' own time).

### **Course Objectives**

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

- Achieve the BOHS Certificate in BOHS-M506: Ergonomics Essentials (Including Manual Handling and DSE)
- Discuss ergonomics and its scope in relation to work including anatomy, physiology, and psychology, with respect to ergonomics building blocks like anthropometry and biomechanics
- Identify observational experimental methods which can be used for investigation, so that work, equipment, and planned systems can be improved for human use
- Apply ergonomics at work, and where to obtain information and advice for using ergonomics
- Carryout work design, ergonomics risk assessment and measurements and information gathering
- Identify the disorders resulting from manual handling and repetitive work and explains the causes, how to assess and prevent them and how to reduce their effect
- Illustrate workplace layout and equipment design and discuss the principles of workstation and system design, space and workstation design principles and risks to health
- Identify the design considerations for visual display unit (VDU) stations including controls, displays and information
- Recognize problems in the physical environment in relation to human responses and how to reduce these problems
- Discuss the key aspects of health and safety standards, covering ergonomics, social aspects and training, instruction, and supervision requirements

### 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 ergonomics essentials (including manual handling and DSE) for technicians and technologists who conduct measurements and testing in workplaces.

### Exam Eligibility & Structure

There are no prerequisites required for this qualification.

### Suggested References and Further Reading

- (1) Ergonomic checkpoints: Practical and easy-to-implement solutions for improving safety, health and working conditions. Second edition
- (2) Ergonomic checkpoints in agriculture: Practical and easy-to-implement solutions for improving safety, health and working conditions in agriculture.
- (3) Work Design: Occupational Ergonomics 7th Edition
- (4) Ergonomics for Beginners
- (5) Workplace Ergonomics: A Practical Guide
- (6) Introduction to Ergonomics
- (7) Evaluation of Human Work
- (8) Ergonomics Work and Health
- (9) The Ergonomics of Workspaces & Machines
- (10) Bodyspace: Anthropometry Ergonomics and Design
- (11) HSG 48: Reducing Error and Influencing Behaviour
- (12) Fitting the Task to the Human – a textbook of Occupational Ergonomics
- (13) Human Error
- (14) ISO 11228-1:2003 Ergonomics -- Manual Handling -- Part 1: Lifting and Carrying
- (15) ISO 11228 –2:2007 Ergonomics -- Manual Handling -- Part 2: Pushing and Pulling
- (16) ISO 11228-3:2007 Ergonomics -- Manual Handling -- Part 3: Handling of Low Loads at High Frequency
- (17) ISO/TS 20646-1:2004 Ergonomic Procedures for the Improvement of Local Muscular Workloads -- Part 1: Guidelines for Reducing Local Muscular Workloads
- (18) ISO 6385: 2004 Ergonomic Principles in the Design of Work Systems
- (19) ISO/TR 16982:2002 Ergonomics of Human-System Interaction -- Usability Methods Supporting Human-Centred Design

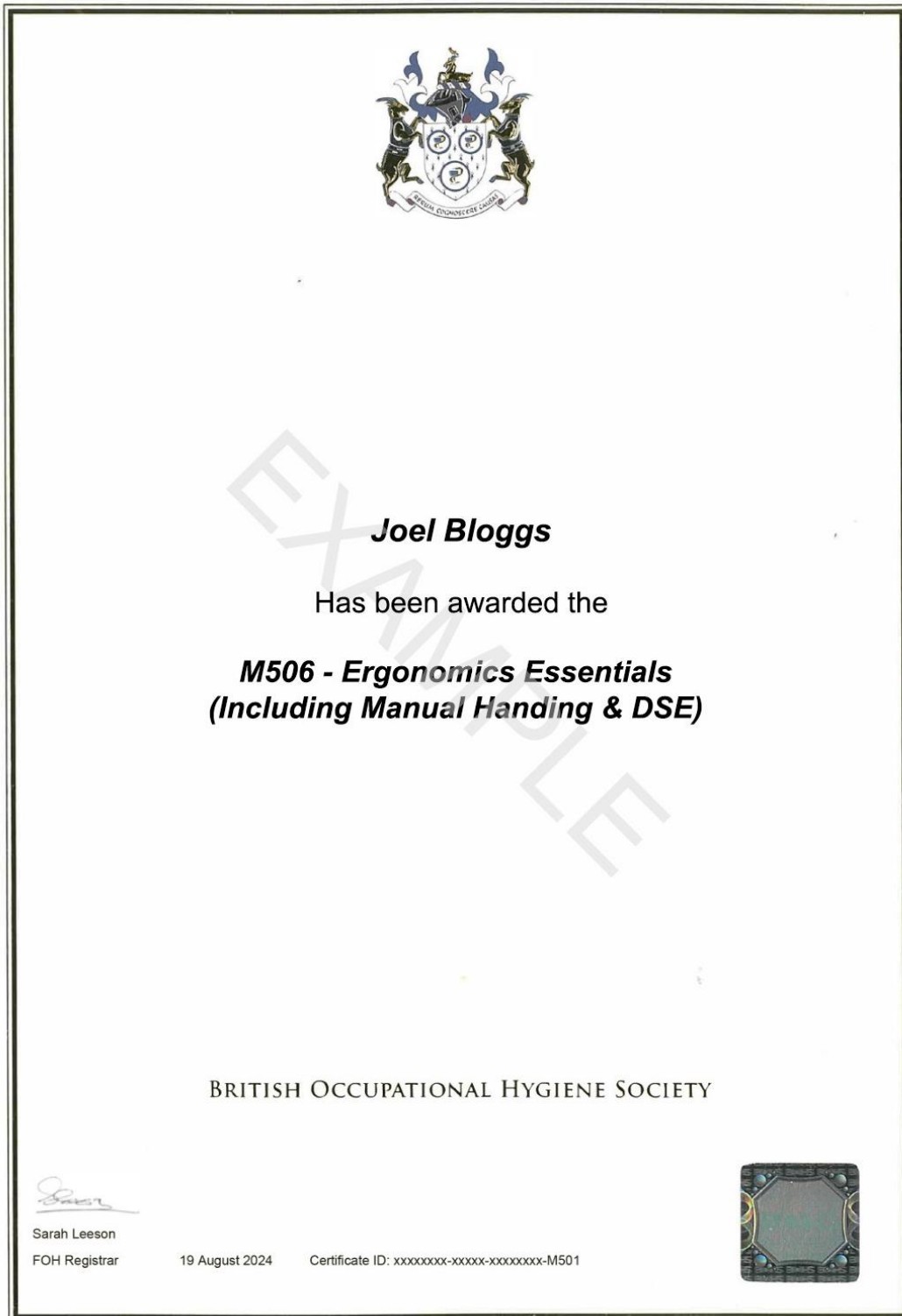


**Course Certificate(s)**

(1) BOHS-M506 – Ergonomics Essentials (Including Manuel Handling and DSE) will be awarded to participants who have successfully completed the course and passed all the parts (A and B) within 12 months.

**BOHS Certificate(s)**

The following certificate is a sample of the BOHS 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
HE1942	Industrial Hygiene Certification Program BOHS-M506: Ergonomics Essentials (Including Manual Handling & DSE) <i>(Accredited by the British Occupational Hygiene Society - BOHS)</i>	November 11-15, 2023	37	3.7

**Total No. of CEU's Earned as of TOR Issuance Date** **3.7**

**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, Hemdon, 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:-

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The British Occupational Hygiene Society (BOHS)

Haward Technology is an Approved Training Partner of the British Occupational Hygiene Society (BOHS) for the M201 and M500 series modules, which are designed to maintain a high standard of occupational hygiene education.

Together with BOHS, Haward Technology supports hygiene professionals in their mission to create safe working environments globally and is committed to advancing the practice of occupational hygiene to promote healthier workplaces worldwide.

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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.

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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 **3.7 CEUs** (Continuing Education Units) or **37 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.

**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 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 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

**Exam Fee**

**US\$ 175** 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: Sunday, 09<sup>th</sup> of February 2025**

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	<b>PRE-TEST</b>
0830 – 0930	<b>Overview of Ergonomics: General Principles</b> Aims, Objectives & Benefits of Ergonomics • Definition & Scope of Ergonomics & Systems of Work • The Role of the Ergonomist • Fitting the Job to the Person & the Person to the Job • Human Characteristics, Capabilities, & Limitations • Human Error • Teamwork & Ageing • Interfaces Between Job, Person, & Environment • Human Computer Interaction
0930 – 0945	Break
0945 - 1230	<b>Overview of Ergonomics: Biological Ergonomics</b> Body Systems - Musculo-Skeletal & Nervous • Anatomy, Static & Dynamic Anthropometry • Biomechanics • Applying Work Physiology - Body Metabolism, Work Capacity & Fatigue • Static & Dynamic Postures
1230 - 1330	Lunch
1330 – 1500	<b>Overview of Ergonomics: Psychology</b> Perception of Risk • Motivation & Behaviour • Memory • Signal Detection Theory & Vigilance • 'Work 'Stress' - Causes, Preventative & Protective Measures • Work Organisation - Shift Working & Overtime







1500 – 1515	Break
1515 - 1620	<b>Overview of Ergonomics: Developing an Ergonomics Strategy at Work</b> Culture of an Organisation - Commitment & Decision-Making • 'Macro-Ergonomics' & Participatory Ergonomic Teams • Ergonomics at the Design Stage • Developing Ergonomics, Professional Ergonomists, & Competence
1620 – 1630	<b>Recap</b> 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
1630	End of Day One

**Day 2: Monday, 10<sup>th</sup> of February 2025**

0830 – 0930	<b>Ergonomics Methods &amp; Techniques: Work Design</b> Task Analysis & Allocation of Functions • User Trials • Problem Solving - Scientific Method
0930 – 0945	Break
0945 - 1230	<b>Ergonomics Methods &amp; Techniques: Ergonomics Risk Assessment</b> Definitions of Hazard & Risk • Priorities • Risk Evaluation Quantity & Quality of Risk • Assessment Systems • Overall Ergonomics Approach • Control Measures Monitoring & Feedback
1230 – 1330	Lunch
1330 – 1430	<b>Ergonomics Methods &amp; Techniques: Measurements &amp; Information Gathering</b> Ergonomics Standards • Observational Techniques
1500 – 1515	Break
1515 – 1600	<b>Ergonomics Methods &amp; Techniques: Measurements &amp; Information Gathering (cont'd)</b> Rating Scales, Questionnaires, & Check Lists • Use of Models & Simulation
1620 – 1630	<b>Recap</b> 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
1630	End of Day Two

**Day 3: Tuesday, 11<sup>th</sup> of February 2025**

0830 – 0930	<b>Musculo-Skeletal Disorder: Manual Handling</b> The Nature & Causes of Manual Handling Disorders • Risk Assessment
0930 – 0945	Break
0945 - 1230	<b>Musculo-Skeletal Disorder: Manual Handling (cont'd)</b> Job Design & Training • Principles of Handling & Preventative & Protective Measures
1230 – 1330	Lunch
1330 – 1500	<b>Musculo-Skeletal Disorder: Work Related Upper Limb Disorders (WRULD)</b> The Nature & Causes of Wruld/ 'Repetitive Strain Injuries'/Cumulative Disorders • Risk Assessment
1500 – 1515	Break



1515 – 1600	<b>Musculo-Skeletal Disorder: Work Related Upper Limb Disorders (WRULD) (cont'd)</b> <i>Principles of Control, Preventive &amp; Protective Measures</i>
1620 – 1630	<b>Recap</b> <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today &amp; Advise them of the Topics to be Discussed Tomorrow</i>
1630	<i>End of Day Two</i>

**Day 4: Wednesday, 12<sup>th</sup> of February 2025**

0830 – 0930	<b>Workplace, Job, &amp; Product Design: Workplace Layout &amp; Equipment Design, Principles of Workstation &amp; System Design, Space &amp; Workstation Design Principles &amp; Risks to Health</b> <i>Musculoskeletal Problems • Visual Fatigue • Mental Stress • Requirements for Eye Tests</i>
0930 – 0945	<i>Break</i>
0945 – 1230	<b>Workplace, Job, &amp; Product Design: Design considerations for Visual Display Unit (VDU) Stations</b> <i>Ergonomic factors • Workstations • Design of Work &amp; Practice • Conducting Assessments of Risk at VDU Workstations</i>
1230 – 1330	<i>Lunch</i>
1330 – 1500	<b>Workplace, Job, &amp; Product Design: Controls, Displays &amp; Information</b> <i>Visual, Auditory, &amp; Other Displays • Quantitative &amp; Qualitative Information • Compatibility &amp; Population Stereotypes</i>
1500 - 1515	<i>Break</i>
1515 – 1600	<b>Workplace, Job, &amp; Product Design: Controls, Displays &amp; Information (cont'd)</b> <i>Warnings, Signs, &amp; Labels • Sources &amp; Selection of Data • Principles of Software Ergonomics</i>
1620 – 1630	<b>Recap</b> <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today &amp; Advise them of the Topics to be Discussed Tomorrow</i>
1630	<i>End of Day Three</i>

**Day 5: Thursday, 13<sup>th</sup> of February 2025**

0830 – 0900	<b>Relevant Physical Factors of the Work Environment: Lighting</b> <i>Visual Acuity &amp; Colour Vision • Lighting Levels, Contrast, &amp; Glare • Reflections &amp; Flicker Fusion</i>
0900 - 0930	<b>Relevant Physical Factors of the Work Environment: Noise</b> <i>Noise Induced Hearing Loss • Distraction, Annoyance, &amp; Emergency Signals</i>
0930 – 0945	<i>Break</i>
0945 – 1130	<b>Relevant Physical Factors of the Work Environment: Thermal Environment</b> <i>Body Temperature Regulation &amp; Acclimatisation • Subjective Assessments - Thermal Comfort &amp; Discomfort</i>
1130 - 1230	<b>Relevant Physical Factors of the Work Environment: Clothing &amp; Protective Equipment</b> <i>Objective &amp; Subjective Effects • Risk Perception, &amp; Wearability • Design, Style &amp; Fit</i>



1230 - 1330	Lunch
1330 - 1445	<b>Relevant Physical Factors of the Work Environment: Other Considerations</b> Smell, Taste, & Tactile Senses • Vibration - Effects & Subjective Assessment
1445 - 1500	Break
1500 - 1515	<b>Standards &amp; Social Aspects: Standards</b> ISO Standards • Sources of Other Standards
1515 - 1530	<b>Standards &amp; Social Aspects: Selection &amp; Training</b> Training Needs Analysis • Testing & Interview Techniques
1530 - 1545	<b>Standards &amp; Social Aspects: Instruction &amp; Supervision</b> Health Information, Legal Requirements • Supervision & Records • Measuring Health & Illness
1545 - 1600	<b>Course Conclusion</b>
1600 - 1615	<b>POST-TEST</b>
1615 - 1630	Presentation of Course Certificates
1630	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.

**Examinations & Assessment**

Candidates are required to pass all of the following parts (A and B below) to be awarded this qualification.

**(A) Practical Assessment**

The practical assessment is conducted by the Tutor during the relevant part of the course for all candidates. This is to ensure that every candidate can demonstrate their individual ability and correct method.

The studies are designed by the course tutor(s) to assess basic skill and knowledge of each candidate.

Further information about the formative practical assessment is published in the following documents: Practical Evaluation Report which is available from [www.bohs.org](http://www.bohs.org)

**(B) Written Examination (Update as necessary)**

This is an open-book examination comprising of 40 (160 marks) short-answer questions illustrated by photographs and diagrams as appropriate to be answered in 2 hours. Each question is worth 4 marks

The examination covers all sections of the syllabus and is overseen by an invigilator.

The pass mark for this examination is 50 %





### **Practical Sessions**

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



### **Course Coordinator**

Mari Nakintu, Tel: +971 2 30 91 714, Email: [mari1@haward.org](mailto:mari1@haward.org)