

## **Occupational Hygiene Training Scope of work**

The service includes conformance to all Education, Training and Development practices and not limited to Facilitation of learning using a variety of different methodologies, Assessment of learning intervention with assessment instruments and Moderation where applicable, learning assessment design, learning content design, classroom effectiveness and the evaluation of learner participation. The roles and services will include but not limited to the following:

- 5.1 Monitoring and management of heat stress associated with confined space entry**
- 5.2 BMT: Fundamentals - common OH measurement techniques**
- 5.3 BMT: Ventilation**
- 5.4 BMT: Aerosols, excl. asbestos**
- 5.5 BMT: Asbestos**
- 5.6 BMT: Gases and Vapours**
- 5.7 BMT: Noise**
- 5.8 BMT: Illumination**
- 5.9 BMT: Thermal Stress**
- 5.10 BMT: Non-Ionising Radiation (EMF)**
- 5.11 BMT: Ionising Radiation**
- 5.12 BMT: Non-Ionising Radiation UV**
- 5.13 BMT: Indoor Air Quality**
- 5.14 Gas Testing - Confined Space**
- 5.15 Asbestos - Surveying & Sampling Strategies**
- 5.16 Management of Asbestos**
- 5.17 Physical Hazards – Awareness**
- 5.18 Hazardous Biological Agents (HBA) – Awareness**
- 5.19 Ergonomics – Specialist**

## **Detailed Scope of Work**

### **5.1 Monitoring and management of heat stress associated with confined space entry**

**Course duration:** 2 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, OHS Practitioners, SHE Reps. Staff, involved with management and monitoring of Confined Space Entry Activities, e.g., Chemical Services personnel, managerial and supervisory personnel, technical personnel, etc.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to train learners on how to monitor and manage Heat Stress, associated with Confined Space entry.

**Course contents:**

**The course should include the following:**

1. Physiology of Heat Stress
2. The Effect of Confined Space Entry on Elevating the Risk of Heat Stress
3. Excessive heat and human physiology
4. The Effect of Confined Space Entry on Elevating the Risk of Heat Stress
5. Heat Stress Legislation and Other Standards of Best Practice
6. Heat Stress Monitoring Instrumentation and Measurement Procedures
7. Controls

**Course outcomes:**

After completing this course, you should be able to demonstrate your knowledge and understanding of:

1. Excessive heat and human physiology.
2. The effect of confined space entry on elevating the risk of heat stress.
3. The legal requirements, related to Heat Stress Management.
4. Conducting a Heat Stress Risk Assessment.
5. Developing and implementing a Heat Stress Management Plan.
6. Conducting Heat Stress Measurements/Monitoring.
7. Calculating Work-Rest Cycles.
8. Demonstrating accurate record keeping.

## **5.2 BMT: Fundamentals – common OH measurement techniques**

**Course duration:** 4 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications, OHS Practitioners, SHE Reps, OHS managerial and supervisory personnel.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to train learners in the basic principles of Occupational Hygiene Measurements.

**Course contents:**

1. The course should include the following:
2. The Basic Principles of Accuracy, Precision, and Sampling Error
3. The Principle of Representative Sampling
4. The Basic Principles of Instrument Calibration
5. The Basic Principles of Noise Measurements for Noise Zoning and Hearing Conservation Purposes
6. Basic Principles of Hazardous Chemical Agents (HCA) Exposure Measurements
7. Local Extraction Ventilation (LEV)
8. Heat Stress Measurements
9. Artificial Illumination Measurements
10. Evaluation of General Ventilation: Carbon dioxide (CO<sub>2</sub>) Measurements

**Course outcomes:**

After completing this course, the learner should be able to demonstrate your knowledge and understanding of:

1. Distinguish between and explain the basic principles of accuracy and precision.
2. Discuss the different types of sampling errors that can occur, their impact on sampling results and how to prevent them from occurring.
3. Describe the principle of representative sampling.
4. Describe the basic principles of instrument calibration.
5. Explain external and internal (field) calibration of Occupational Hygiene survey instruments.
6. Discuss correct measurement instrument and sample handling procedures.
7. Explain how to correct measurement values in accordance with calibration data.
8. Explain how to correct measurement values, to be representative of employee exposure levels.
9. Explain the basic principles of the measurement of noise levels.
10. Discuss the basic principles of the measurement of Hazardous Chemical Agents.
11. Discuss the basic principles of the air velocity measurements for the evaluation of Local Extraction Ventilation systems.
12. Discuss the basic principles of Heat Stress measurements.
13. Discuss the basic principles of the measurement of illumination for the evaluation of artificial illuminance.
14. Discuss the basic principles of the evaluation of general ventilation, by means of Carbon Dioxide level measurements.
15. Apply your knowledge of basic principles and procedures for Occupational Hygiene measurements in any given situation.

**5.3 BMT: Ventilation**

**Course duration:** 3 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications, OHS Practitioners.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to train learners on how to conduct extraction ventilation system efficiency testing.

**Course contents:**

The course should include the following:

1. Legislative and Other Standards
2. Air Velocity and Air Pressure Measurement Instruments
3. Components of an Extraction Ventilation System
4. Measurement Points
5. Air Velocity and Air Pressure Meter Set-Up and Operation
6. Calculations and Interpretation of Results
7. Control and Improvement Measures

**Course outcomes:**

After completing this course, the learner will be able to:

1. Explain the basic principles, definitions, units of measurement and the proposed standards of the physics of Airflow and Air Pressure.
2. Explain legislative and other standards of ventilation.
3. Identify the different components of air velocity and air pressure measuring equipment.
4. Explain the functioning, correct setting-up, and the application of operating procedures of instrumentation.
5. Identify the components of an Extraction Ventilation System.
6. Correctly identify measurement positions.
7. Perform ventilation calculations correctly.
8. Interpret and evaluate ventilation measurement results.
9. Identify and define basic control and improvement measures.

**5.4 BMT: Aerosols, excl. asbestos**

**Course duration:** 3 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to train learners in the basic principles of Occupational Hygiene Measurements.

**Course contents:**

The course should include the following:

1. Definitions, Units of Measurement and Legislative Aerosol Exposure Standards
2. Legislation and Exposure Standards
3. Components of a Sampling Train
4. Sampling Techniques
5. Sampling Train Calibration Procedures
6. Field Sampling and Sample Media Handling
7. Calculation and Evaluation of Results
8. The Basics of Aerosol Exposure Control

**Course outcomes:**

1. After completing this course, the learner will be able to:
2. Select and apply your knowledge and understanding of the appropriate sampling methodology.
3. Select appropriate sampling media and equipment.
4. Correctly assemble and calibrate sampling equipment.
5. Operate sampling equipment by collecting air samples.
6. Correctly complete data collection sheets.
7. Calculate aerosol concentrations and employee exposure levels.
8. Evaluate exposure levels against statutory standards.
9. Identify and evaluate basic control and improvement measures.

**5.5 BMT: Asbestos**

**Course duration:** 2 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to train learners on how to measure airborne Asbestos fibre concentrations by means of active air sampling technique.

**Course contents:**

The course should include the following:

1. Definitions, Units of Measurement and Legislative Airborne Asbestos Fibre Exposure Standards
2. Components of a Sampling Train
3. Sampling Train Calibration Procedures
4. Field Sampling
5. Sampling Media Handling and Sampling Errors

6. Calculations and Evaluation of Results
7. Legislation
8. Asbestos Control Measures

**Course outcomes:**

After completing this course, the learner should be able to:

1. Select and apply your knowledge and understanding of the appropriate sampling methodology and equipment.
2. Select appropriate sampling media.
3. Correctly assemble and calibrate sampling equipment.
4. Operate sampling equipment – collect air samples.
5. Correctly complete data collection sheets.
6. Calculate airborne Asbestos fibre concentrations and employee exposure levels.
7. Evaluate exposure levels, against statutory standards.
8. Identify and define basic control and improvement measures.

## **5.6 BMT: Gases and Vapours**

**Course duration:** 2 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to train learners in the basic principles of gas and vapour measurements.

**Course contents:**

The course should include the following:

1. Definitions and Units of Measurement
2. Legislation and Exposure Standards
3. Components of a sampling train and the use of passive samplers and direct reading instruments
4. Selecting an Appropriate Sampling Technique
5. Sampling Train Calibration Procedures
6. Field Sampling
7. Calculations and evaluation of results
8. Controls

**Course outcomes:**

After completing this course, the learner should be able to:

1. Select and apply your knowledge and understanding of the appropriate sampling methodology.
2. Select appropriate sampling media and equipment.
3. Assemble and calibrate sampling equipment.
4. Operate sampling equipment and collect air samples.
5. Complete data collection sheets.
6. Calculate gas / vapour concentrations and employee exposure levels.
7. Evaluate exposure levels against statutory standards.
8. Identify and define basic control and improvement measures.

## **5.7 BMT: Noise**

**Course duration:** 2 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

### **Purpose:**

The purpose of the course is to train learners to measure occupational noise for hearing conservation purposes.

### **Course contents:**

The course should include the following:

1. The Basics of Sound, Definitions and Units of Measurement
2. Legislative Standards
3. Noise Measurement Instruments
4. Sound Level Meter Set-Up and Calibration
5. Health Effects of Excessive Exposure to Noise
6. Field Survey
7. Calculations and Evaluation of Results
8. Noise Control

### **Course outcomes:**

After completing this course, you should be able to:

1. Explain the basic principles of the physics of noise and physiology of noise induced hearing impairment.
2. Discuss noise induced hearing loss related legislation.
3. Identify the different components of a sound level meter.
4. Assemble a sound level meter.
5. Set-up and calibrate of a sound level meter.
6. Apply standard reference noise survey methodology, procedures and capturing field data.
7. Calculate employee noise exposure levels.

8. Evaluate exposure levels against statutory standards.
9. Explain the basics of noise control.

## **5.8 BMT: Illumination**

**Course duration:** 1 Day

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications, OHS Practitioners.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to train learners to conduct Illumination measurements.

**Course contents:**

**The course should include the following:**

1. The Basic Principles of the Physics of Light, Definitions and Units of Measurement
2. Legislation
3. Illumination Measurement Instruments
4. Functioning, Correct Setting-Up and Application of Operating Procedures of Instrumentation
5. The Components of a Luminaire and Different Types of Luminaires
6. Measurement Points and Strategies
7. Calculations and Evaluation of Results
8. Control and Improvement Measures

**Course outcomes:**

After completing this course, you should be able to:

1. Explain the basic principles of the physics of light, definitions, units of measurement and proposed standards.
2. Identify the different components of a Lux Meter.
3. Explain the functioning, correct setting-up and application of operating procedures of the instrumentation.
4. Identify the components of a luminaire and discuss the different types of luminaires.
5. Identify measurement positions and apply appropriate measurement strategy.
6. Perform illuminance calculations correctly and interpret and evaluate illumination measurement results.
7. Identify and explain basic control and improvement measures.

## **5.9 BMT: Thermal Stress**

**Course duration:** 2 Days



**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications, OHS Practitioners.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to train learners on how to conduct thermal stress measurements.

**Course contents:**

The course should include the following:

**Section 1 – Heat Stress**

1. Physiology of Heat Stress
2. The Mechanisms the Human Body Applies to Regulate its Core Temperature
3. Excessive Heat and Human Physiology
4. The Effects of Personal Protective Equipment (PPE) and Metabolic Rate on Heat Stress
5. Heat Stress Related Legislation and Other 'Best Practice' Standards
6. Heat Stress Monitoring Instrumentation and Measurement Procedures
7. Controls

**Section 2 – Cold Stress**

1. The Human Body and Its Interaction with Cold Environments
2. The Human Body's Reaction to Cold Stress
3. Health Effects of Cold Stress
4. Cold Stress Related Legislation and Other 'Best Practice' Standards
5. Measure Cold Stress and Interpret Data
6. Controls

**Course outcomes:**

After completing this course, the learner will be able to:

1. Explain what Heat Stress is.
2. Identify the mechanisms the human body applies to regulate its core temperature.
3. Explain how excessive heat affects human physiology.
4. Explain how PPE and Metabolic Rate can affect Heat Stress.
5. Explain Heat Stress related legislation and other 'Best Practice' standards.
6. Heat Stress Monitoring Instrumentation and measurement procedures.
7. Calculate and evaluate employee thermal stress exposure levels.
8. Identify and evaluate basic Heat Stress control and improvement measures.
9. Explain the human body and its interaction with cold environments.
10. Explain the human body's reaction to Cold Stress.
11. Identify the health effects of Cold Stress.
12. Explain Cold Stress-related legislation and other 'Best Practice' standards.
13. Explain Cold Stress Monitoring instruments and measurement procedures.

14. Measure Cold Stress and interpret data.
15. Identify and evaluate basic Cold Stress control and improvement measures.

#### **5.10      BMT: Electromagnetic Field Radiation (EMF)**

**Course duration:** 3 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications, OHS Practitioners.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to train learners on how to assess and measure Electromagnetic Field Radiation.

**Course contents:**

**The course should include the following:**

1. The Basics of Electromagnetic Fields (EMFs)
2. EMF related legislation and Other Best Practice Standards
3. Electromagnetic Field Strength measurement instruments
4. Electromagnetic Field Measurement Equipment
5. Basic (EMF) Survey Methodology and Procedures for Field Measurements
6. Calculations and Evaluation of Electromagnetic Field Measurement Results
7. Control Measures

**Course outcomes:**

After completing this course, the learner should be able to:

**Explain the basic principles and the elementary physics related to Electromagnetism, Electromagnetic Waves and their health effects as well as physiological aspects of Electromagnetic Field Radiation exposure.**

1. Name and explain the exposure standards.
2. Identify the different components / equipment used for measuring Electromagnetic Field Strengths (Measurement of Electrical (E) and Magnetic (B) Field Strengths).
3. Correctly assemble, configure and set-up the Electromagnetic Field measurement equipment (inclusive of probes).
4. Apply basic Electromagnetic Field and Ultraviolet Light Survey methodology and procedures in any given situation.
5. Calculate and evaluate Electromagnetic Field measurement results.
6. Explain the basics of Electromagnetic Field Radiation Exposure Control Measures.

#### **5.11      BMT: Ionising Radiation**

**Course duration:** 2 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications, OHS Practitioners, Radiation Protection Officers (RPOs).

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to equip learners to quantify occupational exposure to ionising radiation.

**Course contents:**

The course should include the following:

1. Radioactivity and Radiation
2. Units of Radiation, Radioactivity and Biological Effects of Exposure to Radiation
3. Regulating Authorities, Legislation and Exposure Standards
4. Radiation Protection Functions and Competency Requirements
5. Radiation Measuring Instrumentation: Basic Types
6. Radiation Measuring Instrumentation: Basic Types
7. Radiation Measuring Instrumentation: Detector Types
8. Radiation Measuring Instrumentation: Calibration and Testing
9. Control Measures

**Course outcomes:**

1. After completing this course, the learner should be able to:
2. Explain the basic principles of the physics of radioactivity and ionising radiation.
3. Discuss the units of radioactivity and ionising radiation.
4. Discuss regulating authorities, legislation and exposure standards associated with exposure to ionising radiation.
5. Explain the various levels of the function of radiation protection and the required competencies.
6. Identify and discuss the basic types of radiation measuring instrumentation and the most commonly used types of detectors incorporated into the measuring instrumentation.
7. Set-up, calibrate of and use a variety of radiation measuring instrumentation and measurement techniques.
8. Calculate radiation levels and radiation exposure levels and evaluate radiation levels and radiation exposure levels against health and safety standards.
9. Identify and explain basic radiation protection strategies.

## **5.12      BMT: Non-Ionising Radiation UV**

**Course duration:** 2 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications, OHS Practitioners.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Course contents:**

The course should include the following:

1. The purpose of the course is to equip learners to quantify occupational exposure to ionising radiation.
2. The Basic Principles and Health Effects Related to Ultraviolet Radiation (UV)
3. Standards for Controlling Exposure to Ultraviolet Radiation (UV) in the Workplace
4. Ultraviolet Radiation (UV) Measurement Instruments
5. Ultraviolet Radiation Measuring Equipment Set-Up
6. Basic Ultraviolet Radiation Survey Measurement Methodology and Procedures for Field Measurements
7. Calculations and Evaluation of UV Measurement Results and Parameters
8. Control Measures

**Course outcomes:**

After completing this course, the learner should be able to:

1. Explain the basic principles and the elementary physics related to Ultraviolet light, health effects and physiological aspects of Ultraviolet light exposure.
2. Identify the different components / equipment used for measuring Ultraviolet light (UV-A and UV-B).
3. Assemble, configure and set-up of Ultraviolet light measurement equipment.
4. Apply basic Ultraviolet Light Survey methodology and procedures in any given situation.
5. Calculate UV-A and UV-B Values for Retinal Lens hazard dose and Corneal and Erythema Hazards dose.
6. Explain the basics of Ultraviolet Light Control measures.

### **5.13      BMT: Indoor Air Quality**

**Course duration:** 2 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications, OHS Practitioners.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to equip learners on how to conduct Ventilation and Indoor Air Quality Measurements for Indoor Air Quality Assessment purposes.

**Course contents:**

The course should include the following:

1. The Basic Principles of Air Quality
2. Standards and Limits
3. Ventilation and Indoor Air Quality Assessment Instrumentation
4. Indoor Air Quality Instrumentation
5. The Components of an Air Supply and Heating, Ventilation and Air Conditioning (HVAC) System
6. Measurements
7. Evaluation of Results
8. Control and Improvement Measures

**Course outcomes:**

After completing this course, you should be able to:

1. Explain the basic principles, definitions, units of measurement and proposed standards of Air Quality.
2. Identify and explain the function, set-up, and application of an Air Quality Monitor.
3. Discuss the components and functions of an air supply and Heating, Ventilation and Air Conditioning Systems.
4. Discuss the effects and process to monitor other common indoor air contaminants.
5. Measure and interpret Indoor Air Quality results in any given situation.
6. Interpret and evaluate air quality measurement results.
7. Recommend basic control and improvement measures.

#### **5.14      Gas Testing - Confined Space**

**Course duration:** 3 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, OHS Practitioners, SHE Reps. Staff, involved with management and monitoring of Confined Space Entry Activities, e.g., Chemical Services personnel, managerial and supervisory personnel, technical personnel, etc.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to enable learners to monitor and manage Gas Exposure, associated with Confined Space entry. This training aims to equip Occupational Hygiene Practitioners and “other” staff with the required knowledge and skills to be competent in Confined Space Entry related to Gas Exposure Monitoring and Management and to take individual accountability through their basic knowledge on the subject.

**Course outcomes:**

After completing this course, you should be able to demonstrate your knowledge and understanding of:

1. Gasses and human physiology.
2. The effect of confined space entry on elevating the risk of gas exposure.
3. The legal requirements, related to gas exposure and confined space management.
4. Conducting a Gas Exposure Risk Assessment.
5. Developing and implementing a Confined Space Management Plan.
6. Conducting Gas Exposure Measurements/Monitoring.
7. Calculate gas concentrations and employee exposure levels.
8. Demonstrating accurate record keeping.

**5.15      Asbestos - Surveying & Sampling Strategies**

**Course duration:** 3 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, other personnel with Occupational Hygiene and related qualifications, OHS Practitioners.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to enable learners to identify asbestos and asbestos containing materials accurately and effectively. This training aims to equip Occupational Hygiene Practitioners and “other” staff with the required knowledge and skills to be competent in asbestos surveying and sampling strategies and to take individual accountability through their basic knowledge on the subject.

**Course outcomes:**

1. Candidates should understand the health effects of exposure to asbestos fibres;
2. Candidates should be able to identify types of asbestos and uses of asbestos in buildings;
3. Candidates should understand the different types of asbestos surveys;
4. Candidates should understand how to conduct safe and effective asbestos surveys;
5. Candidates should understand and demonstrate how to perform bulk sampling;
6. Candidates should understand and implement risk assessing and managing asbestos-containing materials;
7. Candidates should understand and effectively use personal protection and decontamination.

## **5.16      Management of Asbestos**

**Course duration:** 2 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, OHS Practitioners, Environmental Practitioners, SHE Reps. Staff, involved with management of asbestos, e.g., managerial, and supervisory personnel, technical personnel, etc.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

### **Purpose:**

The purpose of the course is to enable learners to manage asbestos and asbestos containing materials effectively in work environments. This training aims to equip Occupational Hygiene Practitioners and “other” staff with the required knowledge and skills to be competent in asbestos management functions and strategies and to take individual accountability through their basic knowledge on the subject.

### **Course outcomes:**

1. Candidates should understand the properties of asbestos and health effects of exposure to asbestos fibres;
2. Candidates should understand regulatory requirements including responsibilities of building managers, occupiers and asbestos removal contractors;
3. Candidates should understand types of asbestos and its uses in buildings and building materials;
4. Candidates should understand the types of asbestos surveys and how these are used to aid in developing asbestos abatement work plans;
5. Candidates should effectively develop and understand the asbestos register, risk assessment and management plan;
6. Candidates should understand all aspects of asbestos remediation and removal including work plans, safe work procedures and removal techniques, education training and medical surveillance of workers, waste handling and disposal;
7. Candidates should understand the role of asbestos analysts and the associated laboratory.

## **5.17      Physical Hazards – Awareness**

**Course duration:** 2 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, OHS Practitioners, Environmental Practitioners, SHE Reps, OHS managerial and supervisory personnel, technical personnel, etc.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of this course is to equip learners with knowledge and skills to be able to demonstrate the ability to monitor, advice and report on compliance with legislation regarding physical hazards.

**Course outcomes:**

On completion of this course, learners will be able to:

1. Monitor, advice and report on the specified requirements with regards to physical hazards in a work place.
2. Understand and apply all the applicable regulations as contained in the OHS Act (85 of 1993) and the 'new' (currently still in Draft) Physical Agents Regulations.
3. Demonstrate knowledge pertaining to the application of methods in preventing exposure to physical hazards in a work place.
4. Perform basic control and confinement of physical hazards operations within the capabilities of the resources and personal protective equipment available.
5. Demonstrate understanding of the protection of people exposed to physical hazards and situations
6. Assist health and emergency services in protecting people and property from physical hazards.
7. Identify protective action factors.
8. Apply protective actions.
9. Apply health and safety precautions.
10. Demonstrate knowledge pertaining to the identification, classification and health effects of physical hazards in a workplace.
11. Analyse an incident for potential or actual exposure to physical hazards and their possible consequences.
12. Consider options and plan the management of an incident.
13. Implement a physical hazards management plan.
14. Evaluate a physical hazards management plan.

## **5.18      Hazardous Biological Agents (HBA) – Awareness**

**Course duration:** 1 Day

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, OHS Practitioners, Environmental Practitioners, Health Practitioners, SHE Reps, OHS managerial and supervisory personnel, etc.

**Minimum learners per class:** 10 learners



**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of this course is to equip learners with knowledge and skills to be able to demonstrate the ability to monitor, advice and report on compliance with legislation regarding Hazardous Biological Agents (HBA).

**Course outcomes:**

On completion of this course, learners will be able to:

1. Monitor, advice and report on the specified requirements with regards to HBAs in a work place.
2. Understand and apply all the applicable regulations as contained in the Hazardous Biological Agents Regulations of 2022.
3. Demonstrate knowledge pertaining to the application of methods in preventing exposure to HBAs in a work place.
4. Perform basic control and confinement of HBAs operations and exposed individuals within the capabilities of the resources and personal protective equipment available.
5. Demonstrate understanding of the protection of people exposed to HBAs and situations
6. Assist health and emergency services in protecting people from HBAs.
7. Identify protective action factors.
8. Apply protective actions.
9. Apply health and safety precautions.
10. Demonstrate knowledge pertaining to the identification, classification and health effects of HBAs in a workplace.
11. Analyse an incident for potential or actual exposure to HBAs and their possible consequences.
12. Consider options and plan the management of an incident.
13. Implement a HBA management plan.
14. Evaluate a HBA management plan.

## **5.19      Ergonomics – Specialist**

**Course duration:** 5 Days

**Frequency:** Training shall be provided as and when the need arises.

**Refresher/Retraining:** Retraining will be conducted where internal regulations, standards and procedures change.

**Validation of certificate:** Certificate does not expire.

**Related Unit Standard:** N/A

**Target Group:** Occupational Hygiene Practitioners, OHS Practitioners, Health Practitioners, Bio kineticists, Industrial Organisational Psychologists, Occupational Therapists, Engineers, etc.

**Minimum learners per class:** 10 learners

**Maximum learners per class:** 15 learners to allow enough practical demonstration and practice for each learner.

**Purpose:**

The purpose of the course is to provide OHS practitioners and related professionals, with hands on solutions to industrial ergonomic challenges, which will contribute to improved

productivity, employee motivation and wellbeing, as well as minimising injuries, litigation costs, maintenance costs, staff turnover and absenteeism in the organisation.

**Course outcomes:**

**Learning Outcomes (short version):**

1. Allows individuals upon completion to do basic ergonomic assessments on tasks concerning Lifting, Carrying, Pushing/Pulling, and the Office.
2. Learners will gain knowledge of ergonomic principles and ergonomic assessments.
3. Learners will acquire skills to complete ergonomic assessments as well as various measurement techniques that are commonly used in an industrial and office environment.
4. Learners will be trained in the (ErgoRisk) Toolkit, for Lifting, Carrying, Work Related Upper Limb Disorders, Pushing & Pulling and Office ergonomics.

**Learning Outcomes (long version):**

1. Introduction to current & upcoming Ergonomics Regulations in South Africa.
2. Understanding the importance of good ergonomics in the work environment.
3. Learners will gain extensive knowledge regarding ergonomic risks in an industrial environment.
4. Gaining an understanding of, being able to identify, and provide practical solutions to reduce the risks regarding the possible development of musculoskeletal work related disorders for the upper limb, lower limb as well as the lower back and neck.
5. Being able to evaluate the current workstations and determine possible equipment, engineering or training requirements to improve the ergonomic compliance of the workstations.
6. Discussing the cost benefits of appropriate ergonomic design and methods of maximizing ROI through good ergonomics.
7. The learners will be provided with a Holistic Background Manual on applied ergonomics in industry.
8. Training in Manual Material Handling (lifting/carrying/pushing/pulling), WRULDS Identification & Controls.
9. Training in (Ergo-Risk Tools) (MMH & WRULDS, Pushing & Pulling and Office Ergonomics).