



APEX

ENVIRONMENTAL

is Presenting

Occupational Hygiene Training Association (OHTA)

Intermediate Level Training Courses

Online 2022



OHTA was formed to promote better standards of occupational hygiene practice throughout the world as well as an international qualifications framework so that students are trained to a consistent, high standard, recognised in all participating countries. To obtain the international certificate* you must complete six modules (**four** core modules and **two** elective modules).

Course information, schedule and fees are outlined in the table below.

** Subject to submission and successful oral assessment by BOHS.*

| Module | Course Description | Cost | Date |
|-------------------|-------------------------------------------------------|---------------------|------------------|
| Foundation | OHTA W201 – Basic Principles of OH | (R9,342.60 inc VAT) | 10 – 17 Jan 2022 |
| Foundation | OHTA W201 – Basic Principles of OH | (R9,342.60 inc VAT) | 11 – 18 Jul 2022 |
| Core | OHTA W507 – Health Effects of HCS | R12 305 (inc VAT) | 24 – 31 Jan 2022 |
| Core | OHTA W501 – Measurements of HCS | R12 305 (inc VAT) | 14 – 21 Feb 2022 |
| Core | OHTA W505 – Control of HCS | R12 305 (inc VAT) | 7 – 14 Mar 2022 |
| Elective | OHTA W504 – Asbestos and other Fibres | R12 305 (inc VAT) | 4 – 11 Apr 2022 |
| Elective | OHTA W502 – Thermal Environments | R12 305 (inc VAT) | 15 – 22 Aug 2022 |
| Core | OHTA W503 – Noise: Measurement and its Effects | R12 305 (inc VAT) | 14 – 23 May 2022 |
| Elective | OHTA W506 – Ergonomics Essentials | R12 305 (inc VAT) | 6 – 13 Jun 2022 |

The modules are presented by the following highly qualified and experienced SAIOH registered Occupational Hygienists:

| | |
|------------------------|----------------------------------------------------------------------------------------------------------------|
| Naadiya Mundy | MSocSci (Geography and Environmental Management) Registered Occupational Hygienist (SAIOH) |
| Sean Chester | MPH: Occupational Hygiene (Wits) Registered Occupational Hygienist (SAIOH) |
| Leon Pretorius | BSocSc (Hons) Environmental Management Registered Occupational Hygienist (SAIOH) |
| Robert Randolph | MPH: Occupational Hygiene (Wits) Registered Occupational Hygienist (SAIOH) |
| Kenneth Boyers | BSc (Pre – Clinical Biological Sciences) BSc Hons (Psychology) Registered Occupational Hygienist (SAIOH) |
| Keegan Seeram | B.Tech: Environmental Health Registered Occupational Hygienist (SAIOH) |

PLEASE NOTE: Courses must be paid for in full in advance. Dates are subject to change

For more information, a copy of the full syllabus and timetable for the module; or to register for this module please contact:

Dee French: dee@apexenviro.co.za – +2731 914 1004



| | |
|-----------------------------|-----------------------------------------------------|
| Course Title: | Basic Principles of Occupational Hygiene |
| Code: | W201 |
| Level: | Foundation |
| Pre-requisites: | None |
| Course Material: | Course manual available from OH learning.com |
| Coordinating Editor: | Kerrie Burton, Jen Hines, Amber Illies, John Dobbie |
| Approval Date: | August 2017 |
| Review Date: | August 2020 |

Aims

This course aims to:

Provide an introductory course outlining the broad principles in occupational hygiene as the basis for anticipation, recognition, evaluation and control of hazards that can be encountered in the workplace.

Learning Outcomes

On completing this course successfully, the student will have a basic understanding of:

- The value of occupational hygiene and the role of the occupational hygienist;
- The range of hazards (physical and chemical) in the workplace;
- Hazard recognition techniques;
- Sources and potential routes of exposure;
- Hazard evaluation, exposure assessment and measurement processes;
- Methods of controlling exposure;
- The management of occupational hygiene programmes.

Course Format

The course is normally run as a taught course over 4.5 days (minimum of 36 hours, including practical / demonstration sessions, overnight questions and guided reading).

There will be a 20 short answer question 'open book' examination with an allowed time of 60 minutes.

Content

| Topic | Title | Time Allocation |
|-------|------------------------------|-----------------|
| 1 | Introduction | 5% |
| 2 | Human Physiology | 15% |
| 3 | Chemical Hazards Recognition | 20% |
| 4 | Physical Hazards Recognition | 20% |
| 5 | Hazard Evaluation | 20% |
| 6 | Control of Hazard | 20% |

Note: Reference is made to standards and good practice documentation. This may not be the most up-to-date relevant publications and is intended as guidance for candidates only.

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| | |
|-----------------------------|--------------------------------------------------------|
| Course Title: | Health Effects of Hazardous Chemical Substances |
| Code: | W507 |
| Level: | Intermediate |
| Pre-requisites: | None |
| Course Material: | Course manual available from OH learning.com |
| Coordinating Editor: | Alan Weinrich |
| Approval Date: | August 2009 |
| Review Date: | August 2012 |

Aims

This course aims to:

Provide an introduction to the principles of toxicology, physiology and epidemiology. The course will cover the main types of harmful effects to target organs from exposure to chemical hazards at work, and the hazards associated with common hazardous substances.

Learning Outcomes

On completing this course successfully, the student will be able to:

- Provide definitions of commonly used toxicological terms;
- Describe the main routes by which hazardous substances can enter the body, and the factors which influence their absorption, distribution, storage and elimination;
- Describe the main sources of information on hazardous substances and processes;
- Describe the main features of the principal target organs affected by hazardous substances at work, and the factors which influence the degree of harm;
- Describe the main routes of exposure and toxic and health effects for hazardous substances commonly encountered in the workplace;
- Carry out basic interpretation of the results from epidemiological studies.

Course Format

Normally run as a 5 day taught course [minimum 45 hours including lectures, tutorials, practical/demonstration sessions, guided reading, overnight questions and examination]. There will be a 40 short answer question "open book" examination with an allowed time of 120 minutes.

Content

| Topic | Title | Time Allocation |
|-------|--------------------------------------------------------------------------------|-----------------|
| 1 | Basic Principles of Toxicology | 25% |
| 2 | Physiology and Target Organs | 30% |
| 3 | Epidemiology | 15% |
| 4 | Health Effects and Industrial Processes Biological Agents (outlined as annex*) | 30% |

Note: Reference is made to standards and good practice documentation. This may not be the most up-to-date relevant publications and is intended as guidance for candidates only.

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| | |
|-----------------------------|-------------------------------------------------------------------------------------|
| Course Title: | Measurements of Hazardous Chemical Substances (including Risk Assessment) |
| Code: | W501 |
| Level: | Intermediate |
| Pre-requisites: | None |
| Course Material: | Course manual available from OH learning.com |
| Coordinating Editor: | Julie Panko |
| Approval Date: | June 2009 |
| Review Date: | June 2012 |

Aims

This course aims to:

Provide the student with a sound understanding of the techniques for assessing exposure to hazardous substances in the workplace and with an understanding of how exposure information can be used to assess risk.

Learning Outcomes

On completing this course successfully, the student will be able to:

- describe the general approach to health risk assessment, including the role of atmospheric monitoring;
- select appropriate equipment to measure specific airborne contaminants and devise a suitable sampling strategy;
- present the results in a form useful for health risk assessment purposes to enable management to comply with relevant legislation.

Course Format

Normally run as a 5-day taught course [minimum 45 hours including practical/demonstration sessions, lectures, tutorials, guided reading, overnight questions and examination].

There will be a 40 short answer question "open book" examination with an allowed time of 120 minutes.

Content

| Topic | Title | Time Allocation |
|-------|---------------------------------------------------------|-----------------|
| 1 | Risk Assessment | 20% |
| 2 | Air Sampling Theory and Practice | 20% |
| 3 | Air Sampling Equipment | 20% |
| 4 | Sample Analysis | 5% |
| 5 | Hygiene Standards | 15% |
| 6 | Biological Monitoring | 10% |
| 7 | Calculation, Interpretation and Presentation of Results | 10% |

Note: Reference is made to standards and good practice documentation. This may not be the most up-to-date relevant publications and is intended as guidance for candidates only.

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| | |
|-----------------------------|----------------------------------------------|
| Course Title: | Noise – Measurement and its Effects |
| Code: | W503 |
| Level: | Intermediate |
| Pre-requisites: | None |
| Course Material: | Course manual available from OH learning.com |
| Coordinating Editor: | Bruce Gantner |
| Approval Date: | September 2009 |
| Review Date: | September 2012 |

Aims

This course aims to:

To provide the student with an appreciation of the nature of noise hazards in the workplace and the effects of noise on people. It also details the approach in carrying out noise assessments in the workplace and in the general environment, and to determine the significance of measurement data in relation to the various standards for compliance.

Learning Outcomes

On completing this course successfully, the student will be able to:

- describe the consequences to health and well-being of excessive exposure to noise;
- understand the measurement (including dosimetry) of noise in relation to current standards;
- conduct surveys in the workplace to assess risks from noise;
- advise on the need and means of control including PPE;
- appreciate and advise on environmental noise assessment and concern;
- understand current standards and good practice in these fields.

Course Format

Normally run as a 5 day taught course [minimum 45 hours including practical/demonstration sessions, lectures, tutorials, guided reading, overnight questions and examination].

There will be a 40 short answer question "open book" examination with an allowed time of 120 minutes.

Content

| Topic | Title | Time Allocation |
|-------|--------------------------------------|-----------------|
| 1 | Physics of Noise | 10% |
| 2 | Human Response to Noise | 10% |
| 3 | Machinery Noise | 10% |
| 4 | Assessment of Noise Risk | 25% |
| 5 | Noise Control and Hearing Protection | 25% |
| 6 | Introduction to Environmental Noise | 10% |
| 7 | Standards and Good Practice | 10% |

Note: Reference is made to standards and good practice documentation. This may not be the most up-to-date relevant publications and is intended as guidance for candidates only.

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| | |
|-----------------------------|-------------------------------------------------|
| Course Title: | Control of Hazardous Chemical Substances |
| Code: | W505 |
| Level: | Intermediate |
| Pre-requisites: | None |
| Course Material: | Course manual available from OH learning.com |
| Coordinating Editor: | Mark Piney |
| Approval Date: | June 2009 |
| Review Date: | June 2012 |

Aims

This course aims to:

Describe the ways in which exposure to hazardous substances arises in the workplace, and to introduce the methodologies and technologies available to control exposures and thereby reduce risks to health.

Learning Outcomes

On successful completion of this module the student should be able to:

- describe how airborne contaminants are generated by industrial processes, how this impacts on the control strategy, and how control solutions can thereby be optimised;
- recognise the range of approaches to risk reduction embodied in the hierarchy of control and select appropriate strategies for implementation;
- describe the meaning of "adequate control", particularly in relation to personal exposures;
- discuss the importance of design considerations in terms of the workplace, process, and plant, as a means of reducing occupational exposures;
- describe the principal elements of a local exhaust ventilation system, give examples of typical installations and know how to carry out the necessary measurements to assess whether a local exhaust ventilation system is effective and operating to the design specification;
- recognise the limitations of local exhaust hoods and enclosures and the means to optimise their effectiveness;
- describe how personal protective equipment programmes may be used in an effective manner;
- recognise the impact that control measures may have on other workplace hazards and understand the need to take a holistic approach to the design of control solutions.

Course Format

Normally run as a 5 day taught course [minimum 45 hours including practical/demonstration sessions, lectures, tutorials, guided reading, overnight questions and examination].

There will be a 40 short answer question "open book" examination with an allowed time of 120 minutes.

Content

| Topic | Title | Time Allocation |
|-------|------------------------------------------------|-----------------|
| 1 | Hazardous Substances Uses and Processes | 15% |
| 2 | Workplace Control Principles | 15% |
| 3 | Process Design and Principles | 15% |
| 4 | Ventilation Systems and Performance Assessment | 35% |
| 5 | Personal Protective Equipment | 15% |
| 6 | Administrative Elements | 5% |

Note: Reference is made to standards and good practice documentation. This may not be the most up-to-date relevant publications and is intended as guidance for candidates only.

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| | |
|-----------------------------|----------------------------------------------|
| Course Title: | Asbestos and other Fibres |
| Code: | W504 |
| Level: | Intermediate |
| Pre-requisites: | None |
| Course Material: | Course manual available from OH learning.com |
| Coordinating Editor: | Jonathan Grant |
| Approval Date: | May 2010 |
| Review Date: | May 2013 |

Aims

This course aims to:

Enhance the student's knowledge of occupational hygiene practice in relation to fibrous dusts. The module concentrates on asbestos, but other fibres, e.g. Machine made mineral fibres, aramids, carbon etc., which are increasingly finding uses in industry are also covered. Successful completion of this module will benefit those working in asbestos consultancy as well as in mainstream occupational hygiene, giving an understanding of the health risks associated with asbestos and other fibres as well as the means of evaluation and control.

Learning Outcomes

On successful completion of this module the student should be able to:

- describe the composition, nature and properties of asbestos, machine made mineral and other fibres and their historical uses;
- describe the health effects of asbestos and other fibrous materials and apply appropriate exposure limits;
- describe the uses of asbestos in buildings and the public health risk that these may pose;
- understand the principles of and requirements for asbestos surveys including taking samples and identifying bulk asbestos types by microscopic techniques including relevant safety requirements;
- be thoroughly familiar with current good practice in the construction and use of enclosures for asbestos remediation and the use of decontamination units;
- understand all the principles of clearance testing, the requirements for measurement and appropriate techniques for post remediation evaluation;
- conduct air sampling to determine airborne concentrations of asbestos or other fibres in accordance with defined procedures including microscopic counting techniques;
- have the ability to advise on all the various techniques for the management of asbestos in buildings in accordance with good practice.

Course Format

Normally run as a 5 day taught course [minimum 45 hours including lectures, tutorials, practical/demonstration sessions, guided reading, overnight questions and examination]. There will be a 40 short answer question "open book" examination with an allowed time of 120 minutes.

Content

| Topic | Title | Time Allocation |
|-------|-----------------------------------------------------------|-----------------|
| 1 | Asbestos and other Fibrous Materials | 15% |
| 2 | Health Hazards and Exposure Limits | 15% |
| 3 | Asbestos in Buildings and Conducting Surveys | 15% |
| 4 | Asbestos Remediation and Assessment Prior to Reoccupation | 35% |
| 5 | Air Sampling and Fibre Counting | 15% |
| 6 | Analysis of Bulk Samples | 5% |

Note: Reference is made to standards and good practice documentation. This may not be the most up-to-date relevant publications and is intended as guidance for candidates only.

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| | |
|-----------------------------|---------------------------------------------------------------------|
| Course Title: | Ergonomics Essentials (including manual handling and DSE) |
| Code: | W506 |
| Level: | Intermediate |
| Pre-requisites: | None |
| Course Material: | Course manual available from OH learning.com |
| Coordinating Editor: | Alison Bell |
| Approval Date: | August 2011 |
| Review Date: | October 2015 |

Aims

This course aims to:

Provide 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 to the social and legal aspects.

Learning Outcomes

On completing this course successfully, the student will be able to:

- apply ergonomic principles to the creation of safer, healthier and more efficient and effective activities in the workplace;
- conduct 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.

Course Format

Normally run as a 5 day taught course [minimum 45 hours including lectures, tutorials, practical/demonstration sessions, guided reading, overnight questions and examination]. There will be a 40 short answer question "open book" examination with an allowed time of 120 minutes.

Content

| Topic | Title | Time Allocation |
|-------|---------------------------------------------------|-----------------|
| 1 | Overview of Ergonomics | 20% |
| 2 | Ergonomics Methods & Techniques | 20% |
| 3 | Musculo-skeletal Disorders | 20% |
| 4 | Workplace, Job and Product Design | 20% |
| 5 | Relevant Physical Factors of the Work Environment | 10% |
| 6 | Standards and Social Aspects | 10% |

Note: Reference is made to standards and good practice documentation. This may not be the most up-to-date relevant publications and is intended as guidance for candidates only.

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| | |
|-----------------------------|----------------------------------------------|
| Course Title: | Thermal Environment |
| Code: | W502 |
| Level: | Intermediate |
| Pre-requisites: | None |
| Course Material: | Course manual available from OH learning.com |
| Coordinating Editor: | Brian Davies & Ross Di Corleto |
| Approval Date: | June 2017 |
| Review Date: | March 2019 |

Aims

This course aims to:

Provide the student with a sound understanding of the effects of the thermal environment on people, and the means of assessing and controlling the risks associated with thermal stress.

Learning Outcomes

On completing this course successfully, the student will be able to:

- Identify sources of thermal stress within the working environment.
- Understand the nature of thermal strain on the body.
- Make an assessment of the thermal environment through appropriate measurement and other means.
- Evaluate the likely risk from exposure to thermal stress.
- Suggest appropriate control approaches for the thermal environment.

Course Format

Normally run as a 5 day taught course [minimum 45 hours including practical/demonstration sessions, lectures, tutorials, guided reading, overnight questions and examination].

There will be a 40 short answer question 'open book' examination with an allowed time of 120minutes.

Content

| Topic | Title | Time Allocation |
|-------|---------------------------------|-----------------|
| 1 | The Thermal Spectrum | 5% |
| 2 | Principles | 10% |
| 3 | Effects of Temperature Extremes | 10% |
| 4 | Thermal Comfort | 5% |
| 5 | Evaluation of Hot Environments | 15% |
| 6 | Control of Hot Environments | 15% |
| 7 | Thermal Surveys | 10% |
| 8 | Evaluation of Cold Environments | 10% |
| 9 | Control of Cold Environments | 15% |
| 10 | Approaches to Risk Assessment | 5% |

Note: Reference is made to standards and good practice documentation. This may not be the most up-to-date relevant publications and is intended as guidance for candidates only.

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