



APEX

ENVIRONMENTAL

Presents

Occupational Hygiene Training Association (BOHS)

Intermediate Level Training Courses

Online and Face-to-Face 2024



BOHS 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	Date
Foundation	M200 – Basic Principles of OH	12-19 Feb (TBC)
Core	M507 – Health Effects of HCS	13-18 Mar (TBC)
Core	M501 – Measurements of HCS	13-20 May (TBC)
Core	M505 – Control of HCS	10-18 Jun (TBC)
Elective	M504 – Asbestos and other Fibres	8-15 Jul (TBC)
Core	M503 – Noise: Measurements and its Effects	12-19 Aug (TBC)
Elective	M506 – Ergonomics Essentials	14-21 Oct (TBC)
Elective	M502 – Thermal Environments	11-18 Nov (TBC)

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

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)
Brandon Nothling	PGDip Occupational & Environmental Health Registered Occupational Hygienist (SAIOH)
Samantha Basson	BHSc: Occupational Hygiene (NWU) Registered Occupational Hygiene Technologist (SAIOH)
Michell Chamberlain	International Certificate of Operational Competence in Occupational Hygiene (ICertOH-BOHS-UK) Registered Occupational Hygiene Technologist (SAIOH)



Course Title:	Basic Principles of Occupational Hygiene
Code:	M200
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 programs.

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

For 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

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:	M507
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:	M501
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%

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Course Title:	Noise – Measurement and its Effects
Code:	M503
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:	M505
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%

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Course Title:	Asbestos and Other Fibres
Code:	M504
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;
- 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:	M506
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:	M502
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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