



The Chartered  
Society for Worker  
Health Protection

**Certificate of Competence  
in Occupational Hygiene  
&  
International Certificate in  
Occupational Hygiene  
Qualification Guide**

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# 1. Qualification Overview

## 1.1 Qualification Introduction

The **Certificate of Operational Competence in Occupational Hygiene** and the **International Certificate in Occupational Hygiene** are the entry level professional qualifications. Award of either of these certificates qualifies the holder to become a Licentiate Member of the Faculty of Occupational Hygiene and demonstrates knowledge and competence in the broad principles and practice of occupation hygiene.

## 1.2 Entry Requirements and Pathways

There are two routes to this qualification, depending on a candidate's previous qualifications and experience. For all three pathways, candidates are expected to have;

- At least 3 years of comprehensive occupational hygiene practice
- Strong science, mathematics or engineering education background at degree level or equivalent.

**Pathway 1** is for those candidates who hold six occupational hygiene modules. Candidates must have completed the four compulsory modules, along with a further two optional modules:

| Compulsory Occupational Hygiene Modules     | Optional Occupational Hygiene Modules                          |
|---|--|
| M501 Measurement of Hazardous Substances    | M502 Thermal Environment                                       |
| M503 Noise and its effects                  | M504 Asbestos and other Fibres                                 |
| M505 Control of Hazardous Substances        | M506 Ergonomics Essentials (including Manual Handling and DSE) |
| M507 Health Effects of Hazardous Substances |  |

**Note :** Any candidate that holds any of the equivalent previous occupational hygiene modules, which were designated as W501 to W507 respectively, can use these as an alternative to the similarly numbered course listed in the table above. For example, W501 is regarded as directly equivalent to M501. Any combination of W500 series courses and M500 series courses is acceptable, provided that the rules concerning compulsory and optional topic areas – as outlined in the table above – are met.

**Exemptions apply** for candidates who hold other qualifications – see **Appendix 3** for further details.

Candidates taking this pathway need to complete two components in order to achieve the qualification: a **Personal Learning Portfolio** and a **Professional Discussion**.

**Pathway 2** is for those candidates who hold a BSc or postgraduate degree in occupational hygiene that is accredited by BOHS. Candidates taking this pathway need to complete two components in order to achieve the qualification: a **Personal Learning Portfolio** and a **Professional Discussion**.

### Additional Option

A further option is available for candidates holding a non-accredited degree or a different set of qualifications. Candidates wishing to use this option will be asked to sit the **core written examination** (see further details of the exam in **Appendix 2**).

This pathway is not available to candidates outside of the UK.

## 1.3 Completing the qualification

The normal expectation is that completion of the qualification should be achieved within a period of **18 months** of acceptance of the application. Candidates are advised to check the BOHS website for information to help them with planning their time effectively.

Applicants should note that some of the components of this qualification are assessed online, and therefore access to a computer and the internet is essential.

## 1.4 Application

Applicants should request to enter for this qualification by submitting a completed application form. The form is located on the BOHS website. Applicants should follow the instructions for completion carefully. Applications are considered on an academic and relevant educational background along with their experience to ensure that entry requirements have been fully met, using all the information provided. Candidates will be sent an email to inform them of the outcome of their application and the relevant pathway to complete the qualification.

There is no charge for the application. Successful applicants are liable to pay fees for each component as they progress through their qualification pathway. A full list of current fees is available on the BOHS website.

## 1.5 Using the Online System

Candidates will create their own account for the [www.bohs-hub.org](http://www.bohs-hub.org) website which will then give them access to;

- Pay for each qualification component
- Access templates for the compilation of the PLP
- Submit the Personal Learning Portfolio (if applicable)
- View feedback comments and assessment results
- Book their professional discussion appointment

## 2. Personal Learning Portfolio

The Personal Learning Portfolio is a structured record of the candidate's workplace learning, practical experience and skills development.

### 2.1 Preparing a PLP

#### 2.1.1 Objective of the PLP

To prepare a portfolio (a collection of evidence) that demonstrates the breadth and depth of practical occupational hygiene experience.

#### 2.1.2 Contents of the PLP

The content of the PLP should show and address core competencies of the qualification

The PLP should comprise of:

- Experience Records. An example is included in **Appendix 4**
- Additional Learning records. An example is included in **Appendix 5**.

For both the Experience Records and the Additional Learning Records, candidates should include a minimum of five and a maximum of ten items.

- Candidates should provide a total of 3 reports. One must cover assessment and control of exposure to hazardous substances (e.g., subject material included in the international modules, M501, M505 and M507 or equivalent technical qualifications) and one, the assessment and control of exposure to noise in the workplace (e.g., M503).
- The third report may cover any other topic listed in the Certificate Core Competencies (see Appendix 1).
- Certificate of authorship for each Report. The template for this can be downloaded from [www.bohs-hub.org](http://www.bohs-hub.org) to be completed and added to the submission.

#### 2.1.3 Examples of Items to Include

Candidates can utilise a variety of different types of items as evidence within the portfolio. The following list sets out examples of what these might be.

- A Diary of relevant experience of practical application in all of the relevant subject areas. This will include records of personal input into surveys, reports etc. An example of a record sheet for recording this information is given in **Appendix 4**.
- Evidence of any relevant additional learning such as meetings and training courses attended, further reading in subject areas etc. An example of a record sheet for recording this information is given in **Appendix 5**.
- Copies of three relevant reports produced by the candidate. The reports must cover three different areas of occupational hygiene practice (see 2.1.2 above). Each report must demonstrate an all-round competence in Occupational Hygiene, covering recognition of the hazard to health, evaluation of the risk and control. This should include some form of measurement or other assessment to a defined standard and interpretation of the results including discussion of any influencing factors.
- These reports will be assessed as an integral part of the PLP and candidates may be given feedback concerning the extent to which core competencies (see **Appendix 1**) are demonstrated.

### 2.1.4 Format

The PLP should be compiled in an electronic format, into either a Microsoft Word or a PDF document. The online submission facility allows either one document or a collection of individual documents to be submitted. The submission system allows a maximum of 1Mb per document; candidates wishing to submit any documents larger than this should break the contents in separate documents and number them accordingly.

## 2.2 Submitting a PLP

Having completed the PLP, candidates will submit this for marking through [www.bohs-hub.org](http://www.bohs-hub.org). Instructions on how to create an account and how to make a submission is included in the qualification acceptance email.

The PLP must be submitted in either Microsoft Word or a PDF format and use the candidate's name and as the filename – e.g., smithj1.pdf, smithj2.pdf. The PLP may be submitted as a series of documents (see section 2.1.4) labelled with sequential numbers following the candidate's name e.g., smithj1. pdf, smithj2.pdf etc.

Full details of how to submit the PLP files is on the PLP submission faculty on the [www.bohs-hub.org](http://www.bohs-hub.org) website.

## 2.3 Assessment and Results

The PLP is allocated to an assessor who will review the submission.

The assessment of the PLP considers the quality of the individual items and evidence of the application of the core competencies at a practical level.

If the PLP is assessed as acceptable, the candidate will be notified through email that they have passed this component. The email will contain information about the next stage of the qualification which will be a professional discussion.

If the PLP is assessed as unacceptable in terms of content or quality, or if the assessor requires further information to evaluate the PLP, the candidate will be contacted directly through the [www.bohs-hub.org](http://www.bohs-hub.org) website and asked to upgrade the submission. Candidates will be expected to correct any technical errors that the assessor identifies in their reports and to amend any sections where the text is not clear. Candidates are given the opportunity for two further re-submissions (constrained by the overall 18-month timescale of the qualification) before the application will lapse and the PLP submission and assessment fee will be forfeited.

PLP assessments may be shared with professional discussion panels and may inform the discussion the examiners have with the candidate during the discussion.

## 2.4 The Next Step

Once a candidate has successfully completed this component, they will move on to book for a professional discussion. Instructions on how to do this will be sent by BOHS through email.



## 3. Professional Discussion

The final component required to achieve this qualification is the professional discussion. This section explains how to book your professional discussion, how to prepare for it and what to expect on the day.

**Candidates should be mindful of the fact that the normal timeframe for completing this qualification is expected to be within 18 months from the date of acceptance, and therefore they should plan their time carefully to try to ensure that they complete the professional discussion within this timeframe.**

### 3.1 Booking your Professional Discussion

Once a candidate has received a successful assessment of their Personal Learning Portfolio, they receive notification from BOHS advising them to proceed onwards to book the professional discussion.

Candidates book the professional discussion through the [www.bohs-hub.org](http://www.bohs-hub.org) website, which they have used previously in this qualification to make assessment submissions. Full instructions on how to do this will be included in the notification email from BOHS.

The professional discussion is conducted online, through a video conference facility. BOHS will provide candidates with the appropriate links to set this up on their computer. Candidates will need to have access to a computer with a microphone or headset (which is preferable) and a camera (either built in or as a peripheral device), a good internet connection and a private room or office in which to conduct the professional discussion.

Once the appointment has been booked, the candidates receive an automatic confirmation email.

### 3.2 The Professional Discussion

#### 3.2.1 Overview

For candidates of the Certificate on Operational Competence in Occupational Hygiene, the professional discussion will take about 60 min and will include reference to UK legislation as appropriate.

For candidates of the International Certificate in Occupational Hygiene, the professional discussion will also take about 60 minutes. Although it will not include any reference by the examiners to any legislative requirements either in the UK or in the country in which the candidate is working, the candidate may refer to appropriate legislative requirements if they so wish.

### 3.2.2 Purpose

The purpose of the professional discussion is to:

- assess whether the candidate has the necessary practical skills to apply that knowledge in real-life practical situations and by doing so can provide competent occupational hygiene advice.

The purpose of the professional discussion is NOT to;

- retest technical knowledge; or
- assess how the candidate is performing in his/her current job.

### 3.2.3 The Examiners

Examiners for the Certificate of Operational Competence in Occupational Hygiene are appointed by BOHS based on their professional background. The examiners are all qualified Occupational Hygienists with a wide range of experience, and hold the Diploma of Professional Competence in Occupational Hygiene. The oral examination panel is usually made up of two examiners, plus a nominated Chair of the panel.

Examiners for the International Certificate in Occupational Hygiene are appointed by BOHS based on their professional background. The examiners are all qualified Occupational Hygienists with a wide range of experience, and hold a professional level qualification in Occupational Hygiene. The oral examination panel is usually made up of three examiners, including a nominated Chair of the panel. Exceptional circumstances may dictate that only two examiners are present, one of whom will be nominated as Chair of the panel.

### 3.2.4 Exam Duration

The oral examination takes approximately 60 minutes in total.

### 3.2.5 Questions within the Professional Discussion

Candidates should expect to be questioned on each of the four compulsory topics and at least two of the optional topics (see table on page 3). In each of the subject areas, the questioning may, where relevant, test the candidate's ability to:

- Analyse the problem and recognise hazards that may exist.
- Carry out practical assessments of risks, including appropriate equipment selection.
- Where appropriate carry out necessary hygiene measurements, and select and operate any sampling, or measurement equipment correctly.
- Calculate and interpret measurement results as appropriate.

- Understand the basics of control (hierarchy), and be able to assess existing controls (LEV systems/RPE/PPE).

Questions will be generally based around real life situations. The scenarios will cover a broad spectrum of hazards and are designed to test the underpinning knowledge and practical ability of the candidate.

### 3.3 Results

Results are issued to the candidates via email within two weeks of attending the professional discussion. If the candidate has passed the professional discussion, they receive notification by email followed by the certificate of successful completion of the qualification by post.

If the candidate has not passed the professional discussion, they will receive information from BOHS by email detailing how to rebook the professional discussion. In this case, feedback is given in order to help the candidate prepare for a further attempt. Candidates will be allowed to retake the professional discussion for two further attempts (at the current fee for an oral examination) provided that they are still within the expected 18-month timeframe for the qualification. If candidates significantly exceed the expected 18-month timeframe, or they are unsuccessful after their third attempt at the professional discussion, then the candidate will normally be required to reapply for the qualification.

### 3.4 Progression to the Diploma

Candidates holding either the BOHS Certificate of Operational Competence in Occupational Hygiene or the International Certificate in Occupational Hygiene may progress professionally to the Diploma of Professional Competence in Occupational Hygiene. More information about the pathways to this qualification can be found at [www.bohs.org](http://www.bohs.org)

## Appendix 1: Core Competencies of the Cert OH and ICert OH Qualification

At Certificate level, candidates are required to demonstrate knowledge across the full breadth of occupational hygiene practice. This includes, but is not confined to, subject areas covered in the M500 series of Occupational Hygiene modules. Within the core topics of hazardous substances and workplace noise, candidates are expected to be able to recognise hazards, carry out on-site environmental monitoring, interpret exposure data, assess health risks and propose appropriate and viable control strategies. In other occupational hygiene topic areas, candidates are expected to demonstrate an understanding of hazards, health risk assessment (including measurement methods if appropriate) and risk reduction principles. In addition to technical skills, candidates should be able to demonstrate their ability to manage health and safety risks in the workplace, to communicate effectively via technical reports and other means, and to understand the principles of ethical behaviour in occupational hygiene.

The table in the following pages presents an overview of the knowledge and skills required of holders of either the Certificate of Operational Competence in Occupational Hygiene, or the International Certificate in Occupational Hygiene.

| Topic                | Competency area             | Required competency  | Further information  |
|----------------------|-----------------------------|--|--|
| Hazardous substances | Knowledge of Health Effects | Understand principles of toxicology  | Provide definitions of commonly used toxicological terms   |
|                      |                             | Describe the main routes by which hazardous substances can enter the body                          | Identify factors which influence the absorption, distribution, storage and elimination of hazardous substances in the body |
|                      |                             | Be aware of the main sources of information on hazardous substances and processes                  | Provide examples of information sources  |
|                      |                             | Describe the main features of the principal target organs affected by hazardous substances at work | Identify factors which influence the degree of harm to target organs   |
|                      |                             | Describe the main routes of exposure and toxic and health effects for hazardous                    | Give examples for commonly encountered hazardous substances  |

| Topic | Competency area                                  | Required competency  | Further information  |
|-------|--|--|--|
|       |  | substances commonly encountered in the workplace   |  |
|       |  | Be aware of the relevance of epidemiology to occupational hygiene  | Carry out basic interpretation of the results from epidemiological studies.  |
|       | Practical skills: Measurement                    | Select appropriate equipment to measure specific airborne contaminants   | Relate to validated sampling methods   |
|       |  | Understand the analytical laboratory requirements for collected air samples  | Give examples of specific sampling methods and related analytical requirements   |
|       |  | Appreciate the nature of sampling errors and how to minimise these   | Describe quality assurance processes to minimise error in measurement procedures   |
|       |  | Devise suitable sampling strategies for specific exposure scenarios  | Be aware of non-inhalation routes (including ingestion) and methods for measuring surface contamination, dermal exposure                                     |
|       | Technical knowledge: Risk Assessment and Control | Describe how airborne contaminants are generated by industrial processes, how this impacts on the control strategy, and how control solutions can thereby be optimised | Give relevant examples of specific processes and contaminants  |
|       |  | Recognise the range of approaches to risk reduction embodied in the hierarchy of control   | Be able to apply the hierarchy of control to a given exposure scenario   |
|       |  | Describe the meaning of "adequate control", particularly in relation to personal exposures   | Relate to UK regulatory requirements (and local/national legislation for ICertOH)  |
|       |  | Understand the importance of design (and human factors) considerations in terms of the workplace, process, and plant, as a means of reducing occupational exposures;   | Give example of processes where risk can be reduced by good design and/or ergonomics considerations  |
|       |  | Describe the principal elements of a local exhaust ventilation system and give examples of typical installations.  | Know how to carry out the necessary measurements to assess whether a local exhaust ventilation system is effective and operating to the design specification |

| Topic | Competency area               | Required competency   | Further information  |
|-------|-------------------------------|---|--|
|       |                               | Understand principles of LEV system design (hoods, ducting, fans, filters, exhaust discharge) | Recognise design defects in local exhaust ventilation systems and understand how these may be overcome               |
|       |                               | Describe the main features of personal protective equipment for hazardous substances          | Describe how PPE programmes can be used in an effective manner to control risks                                      |
|       |                               | Recognise the impact that control measures may have on other workplace hazards.               | Understand the need to take a holistic approach to the design of control solutions.                                  |
| Noise | Knowledge: Health Effects     | Describe the consequences to health and wellbeing of excessive exposure to noise              | Differentiate between NIHL and effects such as TTS and tinnitus  |
|       | Knowledge: Physics of Sound   | Understand nature of sound  | Define key acoustic terms and understand relationships between parameters of sound pressure, intensity and frequency |
|       |                               | Understand how sound propagates in workplaces   | Describe different sources of noise and effects of source/receiver distance on noise level                           |
|       | Practical skills: Measurement | Describe instrumentation used to measure workplace noise and exposures                        | Describe key features of sound level meters and personal dosimeters  |
|       |                               | Describe how measurement instrumentation can be used to assess workplace noise risks          | Describe a noise survey for a typical workplace, ideally involving use of both SLMs and dosimeters                   |
|       |                               | Understand current workplace noise exposure standards   | Be able to correctly quote exposure action and limit values and describe their significance in assessing risks       |
|       |                               | Understand the process for evaluating environmental noise nuisance                            | Describe measurement protocols and standards used for evaluating potential noise nuisance                            |
|       |                               | Understand the principles of noise reduction at source  | Give examples of how noise can be reduced at source in common industrial processes                                   |

| Topic     | Competency area                   | Required competency   | Further information   |
|-----------|-----------------------------------|---|---|
|           | Technical knowledge: Risk Control | Describe options for controlling noise between the source and the receiver  | Give examples of good enclosure design, use of damping, vibration isolation, reduction of reverberant noise, acoustic treatment and refuges, etc                      |
|           |                                   | Describe how ear protection can reduce workplace noise risks  | Describe selection process for ear protection and key features of different ear protector types   |
|           |                                   | Describe principal features of an effective hearing conservation programme  | Describe processes for managing noise risks in the workplace via quiet purchasing policies, survey data, equipment modification and maintenance and use of audiometry |
| Vibration | Hazard recognition                | Describe typical sources of hand-arm vibration (HAV) hazard in the workplace and the health effects of HAV exposure   | Give examples of occupations with an elevated HAV exposure risk. Describe typical symptoms of HAVS and Raynaud's phenomenon   |
|           |                                   | Describe typical sources of whole-body vibration (WBV) hazard in the workplace and the health effects of WBV exposure | Give examples of occupations with an elevated WBV risk. Describe known health effects of excessive WBV exposure   |
|           | Risk assessment                   | Describe techniques for measuring HAV levels in the workplace and estimating HAV exposure                             | Include risk assessment techniques that do not involve direct measurement of HAV  |
|           |                                   | Describe techniques for measuring WBV levels in the workplace and estimating WBV exposure                             | Include risk assessment techniques that do not involve direct measurement of WBV  |
|           | Risk reduction                    | Identify practical measures for reducing risks from HAV and WBV exposure  | Include risk reduction via adaptation to plant and equipment, alternative work processes, management of exposure and role of PPE                                      |
| Asbestos  | Hazard recognition                | Understand the main health hazards associated with asbestos   | Describe the nature of respiratory diseases associated with asbestos exposure. Describe other health effects linked to asbestos                                       |

| Topic      | Competency area    | Required competency   | Further information  |
|------------|--------------------|---|--|
|            |                    | Describe the properties of asbestos and its historical uses   | Identify the main commercial asbestos types, their different mineral backgrounds and the uses to which asbestos has been put   |
|            |                    | Describe typical applications for asbestos and asbestos-containing materials (ACMs) in buildings                          | Give examples of where ACMs can be found in buildings  |
|            | Risk assessment    | Understand the rationale and practice of building asbestos surveys  | Describe in general terms how an asbestos survey can be carried out whilst minimising risks to the surveyor and building occupants   |
|            |                    | Identify factors that affect the risk of fibre release from ACMs  | Contrast the fibre release risk for various types of ACM, from asbestos cement (low) to sprayed asbestos coatings (high) and give a rational explanation for differences   |
|            |                    | Identify options for managing risks from ACMs   | Describe non-removal options to manage risks from ACMS, including encapsulation and condition monitoring   |
|            | Risk control       | Be aware of current good practice for the safe removal of ACMs and remediation of areas from which ACMs have been removed | Describe features of a typical asbestos removal operation and measures required to minimise risks to operators and building occupants  |
|            |                    | Understand principles of airborne asbestos fibre measurement and clearance testing  | Describe how to collect airborne fibre samples and how to evaluate samples by phase contrast microscopy  |
| Ergonomics | Hazard recognition | Understand the main sources of ergonomics risks in the workplace  | Describe the anatomical, physiological and psychological factors that determine the 'fit' of the work environment and work equipment to the human operator. Describe effects of mismatches on health and task performance. |



| Topic               | Competency area    | Required competency  | Further information   |
|---------------------|--------------------|--|---|
|                     |                    | Understand the causes of upper limb and other musculoskeletal disorders                          | Give examples of typical tasks with an elevated risk of musculoskeletal injury and outline the risk factors involved  |
|                     | Risk assessment    | Describe the principles of risk assessment as applied to manual handling activities and DSE work | Identify the main considerations within a manual handling risk assessment (task, individual, load, environment) and how these can apply in a risk assessment. Identify the main considerations in a DSE risk assessment.                                  |
|                     | Risk reduction     | Understand the principles of good workstation design   | Give examples of practical application of good ergonomic design in the workplace – e.g at DSE workstations, control rooms, vehicle cabs etc.  |
|                     |                    | Identify the key options for reducing manual handling injury risks                               | Give examples of reducing manual handling injury risks through automation, job redesign, environmental changes and risk management measures.  |
|                     |                    | Understand the importance of environmental factors in reducing ergonomics risks in the workplace | Give examples of how changes to noise, lighting, thermal and other environmental parameters can reduce ergonomics risks.  |
| Thermal environment | Hazard recognition | Understand the nature of thermal strain on the body  | Describe the body's physiological and behavioural responses to extremes of hot and cold, and examples of health effects caused by exposure to extreme thermal environments  |
|                     |                    | Identify sources of thermal stress in the workplace  | Describe the main sources of heat stress (radiant heat, warm and/or humid air, hot surfaces, sunlight, confined spaces, heavy work schedules etc) and cold stress (low temperatures, high air velocity, water immersion etc). Understand the contribution |

| Topic | Competency area | Required competency   | Further information  |
|-------|-----------------|---|--|
|       |                 |   | of metabolic heat and clothing insulation to thermal stress.   |
|       |                 | Understand the concept of thermal comfort in the workplace                            | Identify the main factors causing thermal discomfort in indoor workplaces  |
|       | Risk assessment | Understand the principles of thermal environment measurement techniques               | Describe instrumentation to measure air temperature, humidity, radiant heat and air movement and explain how they are used   |
|       |                 | Describe the derivation and use of thermal indices                                    | Define WBGT, Required Sweat Rate and other commonly used indices of heat stress (e.g., Effective Temperature, Heat Stress Index). Define Wind Chill Index or other indices of cold stress. Give practical examples of how thermal indices can be applied in real situations. |
|       |                 | Understand the principles of using thermal indices to assess risk                     | Outline the content of ISO 7243 or ISO 7933 as a means of estimating heat stress. Include reference to the individual's metabolic rate and clothing regime.  |
|       |                 | Describe principles of assessing environments in terms of thermal comfort/ discomfort | Outline the content of ISO 7730 and use of PMV and PPD indices to assess the likelihood of an environment being assessed as thermally comfortable.   |
|       | Risk reduction  | Describe typical measures that can be used to reduce risks from heat stress           | Identify engineering and administrative controls that can be used to mitigate risks from heat stress. Identify appropriate PPE and its limitations.  |
|       |                 | Describe typical measures that can be used to reduce risks from cold stress           | Identify engineering and administrative controls that can be used to mitigate risks from cold stress. Identify appropriate PPE (clothing insulation) and its limitations.  |

| Topic              | Competency area    | Required competency  | Further information   |
|--------------------|--------------------|--|---|
|                    |                    | Describe typical measures that can be used to reduce the likelihood of thermal discomfort in a workplace | Identify practical measures that can be used to adjust thermal parameters in moderate environments  |
| Lighting           | Hazard recognition | Understand the effects of workplace lighting on health and work efficiency                               | Identify health effects (eyestrain, migraines etc) and discomfort issues (glare, etc) linked to poor workplace lighting. Identify adverse effects on work efficiency linked to poor lighting (accidents, distraction, reduced productivity etc) |
|                    | Risk assessment    | Describe the methodology for workplace lighting investigations   | Describe features of a light meter and outline how this can be used to monitor lighting levels in a workplace.  |
|                    |                    | Interpret workplace illuminance data in terms of risks to health and work efficiency                     | Indicate information sources for acceptable illuminance values for workplaces   |
|                    | Risk reduction     | Describe measures to optimise the lighting environment   | Indicate principle of good lighting practice in workplaces  |
| Biological hazards | Hazard recognition | Understand the health effects from exposure to hazardous biological agents in the workplace              | Explain the health effects associated with legionella spp., blood borne pathogens, moulds and fungi, animal-related allergens and zoonoses  |
|                    |                    | Identify environments and workplaces where hazardous biological agents may be present                    | Identify areas where legionella spp., blood borne pathogens, moulds and fungi, animal-related allergens and zoonoses can present an exposure risk   |
|                    | Risk assessment    | Describe the principles of assessing risks from exposure to legionella spp.                              | Identify typical sources of legionella infection in water systems, risk factors and the rationale for assessing risks   |
|                    |                    | Describe the principles of assessing risk from exposure to other workplace biological agents             | Identify typical workplaces where blood borne pathogens, moulds and fungi, animal-related allergens and zoonoses may present a risk   |

| Topic                        | Competency area    | Required competency  | Further information  |
|------------------------------|--------------------|--|--|
|                              |                    |  | and explain the rationale for assessing these risks  |
|                              | Risk reduction     | Identify risk reduction measures for legionella spp.   | Describe typical legionella risk management measures for domestic and industrial hot and cold water systems and other specific risk areas  |
|                              |                    | Identify risk reduction measures for other workplace biological agents                                   | Describe typical risk management measures for blood borne pathogens, moulds and fungi, animal-related allergens and zoonoses   |
| Non-ionising radiation (NIR) | Hazard recognition | Describe the electromagnetic spectrum and identify the relative positions of various NIR types within it | Identify the common characteristics of electromagnetic radiation types and rank their position on the electromagnetic spectrum in terms of frequency or wavelength   |
|                              |                    | Understand the health effects of various types of NIR  | Describe the relationship between energy and frequency or wavelength and how this affects health hazard potential for the main NIR types. Identify the most significant health effects from exposure to ultraviolet, infrared, microwave and radiofrequency radiation. Refer to health effects from exposure to high levels of visible light (e.g., via lasers). |
|                              | Risk assessment    | Describe the principles of assessing risk from exposure to NIR   | Identify sources of information on exposure standards for various NIR types. Identify measurement instrumentation, if appropriate.   |
|                              | Risk reduction     | Identify risk reduction measures for NIR types   | Describe typical risk management measures for NIR including engineering and administrative controls and use of PPE   |
| Ionising radiation           | Hazard recognition | Describe the nature and sources of ionising radiation in the workplace                                   | Identify typical workplace sources of $\alpha$ - and $\beta$ -radiation, X-rays etc  |

| Topic             | Competency area                        | Required competency   | Further information   |
|-------------------|--|---|---|
|                   |  | Understand the health effects of exposure to ionising radiation   | Explain the fundamental difference between ionising and non-ionising radiation in terms of potential effects on human health. Outline the main health effects from exposure to IR   |
|                   | Risk assessment                        | Describe the principles of assessing risk from exposure to ionising radiation                                   | Outline instrumentation types for IR (contamination meters, dose badges etc) and how these are used in practice.  |
|                   | Risk reduction                         | Identify the principles of risk reduction for ionising radiation  | Describe typical risk management measures for IR including engineering and administrative controls and use of PPE   |
| Management skills | Planning and resource management       | Describe how to plan and execute occupational hygiene fieldwork in an efficient and cost-effective manner       | Describe preparation stages for occupational hygiene investigations and conduct of survey work. Explain how decisions on sampling regime, number of samples, groups to be sampled and sample locations and duration are arrived at. Refer to statistical and economic considerations governing sampling frequency. Identify potential sources of error in fieldwork and how these can be minimised. |
|                   | Team-working                           | Understand the benefits of teamwork and interaction with fellow professionals in occupational health and safety | Describe typical interactions with health and safety, occupational health and/or ergonomics professionals and other occupational hygienists in the course of occupational hygiene investigations.   |
|                   | Communication and interpersonal skills | Ability to prepare technical reports that are accurate and comprehensible to the client                         | Prepare reports that are grammatically correct, technically accurate and as concise as practicable. Take account of the report recipient(s) in arriving at the style and content of the report.   |

| Topic | Competency area | Required competency   | Further information  |
|-------|-----------------|---|--|
|       |                 | Ability to communicate (orally and in writing) technical information on occupational hygiene issues to all levels of personnel                        | Indicate how details of technical occupational hygiene information can be communicated effectively to stakeholders, including management, workforce, employee representatives etc. |
|       | Ethics          | Recognise situations in professional practice where ethical decisions need to be made   | Be aware of ethical issues in relation to competence, integrity of behaviour, confidentiality and conflicts of interest  |
|       |                 | Understand the imperative of working within the BOHS Faculty of Occupational Hygiene Code of Ethics (or equivalent national or IOHA code for ICertOH) | Be aware of the content of the Faculty Code of Ethics  |

## Appendix 2: Further Information about the Certificate Core Examination

| <b>Paper 1</b>   |                  | <b>Paper 2</b>   |                  |
|--|------------------|--|------------------|
| Part 1A – 65 short answer questions to be answered in approximately in 2 hours 15 minutes.   | 3 hours in total | Part 2A – 65 short answer questions to be answered in approximately in 2 hours 15 minutes.         | 3 hours in total |
| Part 1B – 5 micro essay questions (from a choice of 8) to be answered in approximately 45 minutes.   |                  | Part 2B – 5 micro essay questions (from a choice of 8) to be answered in approximately 45 minutes. |                  |
| The short answer questions in these two papers are based on the syllabi for the above modules.   |                  |  |                  |
| Short-answer questions can gain up to 4 points for a correct answer and 0 points for an incorrect answer or no answer. Micro essay questions can score up to 20 points each. |                  |  |                  |
| To achieve a pass, it is necessary to obtain an average of at least 50% in each paper  |                  |  |                  |

## Appendix 3: Explanation of Exemptions to Entry Requirements

- 1.0 Holders of CoC Measurement of Hazardous Substances are exempt from the core module M501 and the associated section of their PLP.
- 2.0 Holders of CoC Noise are exempt from the core module M503 and the associated section of the PLP.
- 3.0 Holders of CoC in Control of hazardous substances are exempt from the core module M505 and one non-core module and their respective sections of their PLP
- 4.0 Holders of CoC in Health Effects of Hazardous Substances are exempt from the core module M507 and the associated section of their PLP.
- 5.0 Holders of CoC in Thermal Environment are exempt from the optional module M502 and the associated section of their PLP.
- 6.0 Holders of CoC Asbestos are exempt from the optional module M504 and the associated section of their PLP.
- 7.0 Holders of CoC in Ergonomics are exempt from the optional module M506 and the associated section of the PLP
- 8.0 Holders of CoC Legionella are exempt from an optional module and the associated section of the PLP.
- 9.0 Holders of IOA Diploma in Acoustics and Noise Control are exempt from the core module M503.



## Appendix 4: PLP Experience Record Example

| <i>Field</i>  | <i>Sample answers</i>   |
|---|---|
| <i>Current role/position</i>                                    |   |
| <i>Title of survey/project*</i>                                 | <i>Heat stress survey in Copper Smelter</i>   |
| <i>Date of survey/project</i>                                   |   |
| <i>Type of survey/project</i>                                   | <i>Walk-through survey</i>  |
| <i>Scope of survey/project</i>                                  | <i>Identify potential heat exposure areas for future monitoring program</i>   |
| <i>Personal involvement</i>                                     | <i>Assisted the site hygienist during walk-through, prepared initial draft report</i>   |
| <i>To which course module(s) does the survey/project relate</i> | <i>Thermal Environment, Asbestos</i>  |
| <i>Limitations with the survey/project</i>                      | <i>Survey only conducted on one day. The ambient temperature was low for the time of year so may not have identified all critical areas. Senior foreman was on sick leave, so we were not able to discuss the process with him.</i> |
| <i>Problems encountered/learnings</i>                           | <i>Exposed asbestos lagging identified during walkthrough. Immediate control action instigated. Site hygienist made significant changes to my draft report and discussed these with me. It was brutal but enlightening!!</i>        |
| <i>Verification that work performed as stated</i>               |   |
| <i>Manager Name</i>   | <i>Joe Bloggs</i>   |
| <i>Manager signature</i>  |   |
| <i>Date</i>   | <i>20/05/10</i>   |

*\*This could be a monitoring survey, walk-through survey, talk to operators/management, and development of a sampling strategy or safe operating procedure.*

## Appendix 5: PLP Additional Learning Record Example

| <i>Field</i>                               | <i>Sample answers</i>   |
|--|---|
| <i>Meeting / course name</i>               | <i>Managing asbestos in premises</i>  |
| <i>Date</i>                                | <i>19<sup>th</sup> May 2010</i>   |
| <i>Location</i>                            | <i>Cardiff</i>  |
| <i>Learning outcomes/technical content</i> | <p><i>Covered the new HSE guidance – Managing Asbestos in Buildings that has replaced the existing MHDS100 surveyors guide. Speakers provided an overview of the new guidance, issues relating to reports, and surveys, litigation and insurance, management issues, the role of the CDM coordinator and the role of both UKAS and ABICS.</i></p> <p><i>Programme attached.</i></p> |
| <i>Duration</i>                            | <i>09.30 – 17.00</i>  |
| <i>Key speakers</i>                        | <i>Ken Hill, Collette Willoughby and Martin Stear</i>   |
| <i>Verification of attendance</i>          |   |
| <i>Manager Name</i>                        | <i>Joe Blogs</i>  |
| <i>Manager signature</i>                   |   |
| <i>Date</i>                                | <i>20/05/10</i>   |