**ATP Course Materials and Manual Inspection**

**P403 Asbestos Course Materials Review**

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| **Course Provider** |  |
| **Course Location** | Eg, Online, On site, Alternative venue (such as a hotel etc.) |
| **Provider Contact Name** |  |
| **Provider Contact Email** |  |
| **Qualification Code** | P403 |
| **Qualification Title** | Air Sampling and Fibre Counting (PCM) |
| **Submission Date** |  |

**When reviewing your course materials, BOHS will be looking at the following content to be adequately included in the structure of your course.**

This form has been designed to provide you with the structure you need in order to create, update and review your course materials to ensure they are of good quality and are fit for purpose.

* Please use the **comments boxes** to tell BOHS where you have referred to each area within your course materials. For example: Details of the course structure and timetable can be found in page/s xx of document XX of the course materials.
* Where you have made changes or updates to your course materials, BOHS will find it helpful if you also **highlight the areas of change**. This will speed up the checking and authorisation process.
* **Check/tick** boxes have been provided on each section to allow you to work through the form methodically and allow you to keep track as you work through each area.

BOHS takes a fair and consistent approach when reviewing your submitted course resources and will score you accordingly for the content of your course materials as well as the quality of the teaching materials. Please bear in mind the following scoring guide which BOHS will use when reviewing your submission of materials:

* **Score 0 = Subject matter not included/Missing**
* **Score 5 = Subject matter briefly covered**
* **Score 10 = Subject matter includes little detail**
* **Score 30 = Subject matter covered thoroughly/Included**

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| **1** | **Course Introduction** | | | |
|  | | | | |
| **1a** | Has a timetable of course been included? | | |  |
| **1b** | Has information about how the sessions have been organised been included? | | |  |
| **1c** | Has a subject coverage guide been included? | | |  |
|  | **Comments:** | | | |
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| **2** | **Pre-Course Documentation** | | | |
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| **2a** | Has pre-course documentation been provided for each candidate? | | |  |
| **2b** | Does this contain suitable pre-reading material or references? | | |  |
| **2c** | Has advice been included regarding pre-course entry requirements? | | |  |
|  | **Comments:** | | | |
|  | | | |
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| **3** | **Reference Documentation, Manual and Contents** | | | |
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| **3a** | Does the course manual/lecture notes have referencing to all relevant documents including their availability as either or both electronic and printed versions? | | |  |
|  | **Comments:** | | | |
|  | | | |
| **3b** | Does the course manual, teaching materials documentation include the course syllabus? | | |  |
|  | **Comments:** | | | |
|  | | | |
| **3c** | Are the manual and course materials available in both hard copy and electronic formats? | |  | |
|  | **Comments:** | | | |
|  | | | |
| **3d** | Is the manual suitable as a reference document? |  | | |
|  | **Comments:** | | | |
|  | | | |
| **3e** | Is manual purely a sequence of slides or does it contain supporting text? |  | | |
|  | **Comments:** | | | |
|  | | | |
| **3f** | Is the relevant section of HSG 264 (2012) Asbestos: The Survey Guide provided? |  | | |
|  | **Comments:** | | | |
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| **The Syllabus Structure** | | | | |
| **You must ensure that syllabus content is adequately covered within your course. P403 syllabus content is as follows:** | | | | |
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| **4** | **Air sampling equipment, sampling strategies and collection of samples (35%)** | | | |
| This section will provide suitable theoretical knowledge and practical training to ensure that the candidate is capable of identifying the correct sampling equipment, different sample types and strategies for their use, along with how to collect air samples.  In order to achieve this the candidate must be able to demonstrate both their knowledge and practical ability in the following: | | | | |
| **4a** | Appropriate detailed knowledge of HSG248 (1), CAR 2012 (2) and L143 ACOP (3) with emphasis on the responsibilities and legal duties of all roles involved.  Understand their individual duties under Health and Safety at Work Act 1974 to carry out their work diligently so as not to create danger to others. | | |  |
|  | **Comments:** | | | |
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| **4b** | To set up sampling equipment for fibre monitoring including enclosure leak testing, background monitoring, personal monitoring for respirator zones, clearance air monitoring and reassurance sampling. | | |  |
|  | **Comments:** | | | |
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| **4c** | To explain the range of possible sampling strategies (e.g., the difference between sampling where there is work disturbing asbestos and when no disturbance work is involved). | | |  |
|  | **Comments:** | | | |
|  | | | |
| **4d** | To understand when monitoring is not required. | | |  |
|  | **Comments:** | | | |
|  | | | |
| **4e** | To understand types of sampling error and the techniques that can be used to ensure that they do not occur. | | |  |
|  | **Comments:** | | | |
|  | | | |
| **4f** | To fully understand the problems and challenges presented by the methods prescribed for air sampling and fibre counting. | | |  |
|  | **Comments:** | | | |
|  | | | |
| **4g** | To be able to demonstrate the ability to carry out the following tasks:   * Correct use of sampling heads/cowls/filters/rotameters and sampling pumps * Calibration of sampling rate * Use flowmeters(s), flow rate correction * Appropriate locations for samples to be taken | | |  |
|  | **Comments:** | | | |
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| **5** | **Sample preparation and setting up of microscope (25%)** | | | |
| This section will provide suitable theoretical knowledge and practical training to ensure that the candidate is capable of preparing the samples collected, set up a microscope ready for fibre counting along with having a good knowledge of the theory of phase contrast microscopy.  In order to achieve this the candidate must be able to demonstrate both their knowledge and practical ability in the following: | | | | |
| **5a** | To prepare microscope slides following sampling. | | |  |
|  | **Comments:** | | | |
|  | | | |
| **5b** | To be able to set up a range of light microscopes and their illumination facilities. | | |  |
|  | **Comments:** | | | |
|  | | | |
| **5c** | To be able to demonstrate the use and adjustment of:   * The stage micrometer * The Walton Beckett graticule * The NPL test slide | | |  |
|  | **Comments:** | | | |
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| **6** | **Fibre counting and calculation of results (25%)** | | | |
| This section will provide suitable theoretical and practical training to ensure that the candidate is capable of counting fibres in accordance with the recognised counting rules, (i.e., the WHO method as specified in HSG 248 (1), calculate the airborne fibre concentrations from the sampling data and then compare results with appropriate standards.  In order to achieve this the candidate must be able to demonstrate both their knowledge and practical ability in the following: | | | | |
| **6a** | To be able to apply the method of fibre counting required by the Control of Asbestos Regulations (CAR) (2) and HSG248 Asbestos: The Analyst's Guide (1) | | |  |
|  | **Comments:** | | | |
|  | | | |
| **6b** | To understand and be able to apply the fibre counting rules consistently, in practice, to RICE and WHO standards. | | |  |
|  | **Comments:** | | | |
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| **6c** | To be able to carry out counts for a range of fibre types and densities and calculate fibre concentrations and refer to standards/control limits. | | |  |
|  | **Comments:** | | | |
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| **6d** | To understand how and be able to calculate fibre concentrations, fibre densities, limit of quantification, pooled samples, and time-weighted averages. | | |  |
|  | **Comments:** | | | |
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| **6e** | To be able to understand and explain the retention of filter requirements. | | |  |
|  | **Comments:** | | | |
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| **6f** | To understand when asbestos fibres may not predominate and where discrimination by electron microscopy would be more appropriate. Also, to understand If using SEM/TEM methods the additional competences that are required. | | |  |
|  | **Comments:** | | | |
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| **7** | **Certificates and reporting results (7.5%)** | | | |
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| This section will provide suitable theoretical and practical training to ensure that the candidate is capable of producing a certificate of fibre count analysis and then communicating the results appropriately.  In order to achieve this the candidate must be able to demonstrate both their knowledge and practical ability in the following: | | | | |
| **7a** | The requirements if ISO 17025 (4) for the production of test reports to ensure that all required information is included. | | |  |
|  | **Comments:** | | | |
|  | | | |
| **7b** | The importance and significance of producing accurate and adequate information within certificates. | | |  |
|  | **Comments:** | | | |
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| **7c** | The importance of recording detailed contextual information when collecting personal samples. | | |  |
|  | **Comments:** | | | |
|  | | | |
| **7d** | To be able appreciate the requirements and report to a range of client types in writing and verbally. Be able to complete a personal sampling report form as in the template in Appendix A6.3 of HSG 248 (1) including all the relevant contextual information. | | |  |
|  | **Comments:** | | | |
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| **8** | **Quality control (7.5%)** | | | |
| This section will provide suitable theoretical and practical training to ensure that the candidate has suitable knowledge and understanding of quality control requirements.  In order to achieve this the candidate must be able to demonstrate both their knowledge and practical ability in the following: | | | | |
| **8a** | To be able to outline the difficulties of result consistency and the part played by UK and international schemes such as RICE and accreditation by UKAS to ISO 17025 (4) and other similar standards. | | |  |
|  | **Comments:** | | | |
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| **8b** | To understand the importance of internal and external audits and quality systems for reliability and accuracy and their own role in the system. | | |  |
|  | **Comments:** | | | |
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| **8c** | To be able to inspect and prepare/mount filters and plan for post-sampling handling and quality control tasks such as counting blank filters. | | |  |
|  | **Comments:** | | | |
|  | | | |
| **8d** | To understand the limitations on the numbers of samples which can be analysed and the requirements for additional quality control measures. | | |  |
|  | **Comments:** | | | |
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| **Recommended References and Reading** | | | | |
| 1. HSG248 Asbestos: The Analyst’s Guide 2. Control of Asbestos Regulations (CAR) 2012 3. L143 (2013) Managing and working with asbestos. Control of Asbestos Regulations 2012, Approved Code of Practice and Guidance 4. ISO 17025 (2017) General requirements for the competence of testing and calibration laboratories | | | | |