



**Guidance for Candidates,
Training Officers and
External Examiners**

Specialist Portfolio

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It is very important that candidates, trainers and external examiners read the information contained in this document thoroughly and have a good understanding of what is required.

1. INTRODUCTION

- 1.1. The Institute of Biomedical Science (IBMS) Specialist Portfolio provides the opportunity for recognition of structured, standardised post-registration training and assessment of early career biomedical scientists. Individuals can evidence their development of specialist knowledge and skills in their chosen field by gaining the Institute's Specialist Diploma. The portfolio can be used as evidence to help biomedical scientists seeking career advancement, or identifying education and training needs if returning to work/working in new disciplines, or by employers when considering eligibility for promotion. It can also be used by Higher Education Institutions for assessing work-based learning and accredited learning for postgraduate qualifications.
- 1.2. Applicants must, as a minimum requirement, be in the IBMS membership class of Licentiate and be working in a laboratory with Institute approval for post-registration training. Applicants must retain their membership of the IBMS throughout their study of the Specialist Portfolio.
- 1.3. The portfolio is not available to Associate members of the Institute or individuals undertaking pre-registration training. The Specialist Diploma confers eligibility to apply to upgrade Institute membership from the class of Licentiate to Member.
- 1.4. Specialist portfolios are available in the following disciplines:
 - Blood Sciences
 - Cellular Pathology (with optional Molecular Pathology module)
 - Clinical Biochemistry
 - Clinical Immunology
 - Cytopathology
 - Haematology with Hospital Transfusion Practice
 - Histocompatibility and Immunogenetics
 - Medical Microbiology
 - Transfusion Science
 - Virology
- 1.5. In addition there is an optional module on Molecular Pathology to accompany the Cellular Pathology portfolio. This is also available as a stand-alone module to already qualified individuals working in Cellular Pathology that wish to acquire knowledge of Molecular Pathology in the context of their own subject. The requirements for completion of this module are the same as for the Specialist Portfolios. End-point assessment will take place at designated centres; irrespective of whether taken as part of the portfolio or a stand-alone module, and candidates will be advised of arrangements for this in response to their application for assessment.
- 1.6. The Specialist Portfolio and separate Molecular Pathology module are issued on submission of a completed application form to the Institute with the required

Institute of Biomedical Science, 12 Coldbath Square, London EC1R 5HL

Tel 020 7713 0214 Fax: 020 7837 9658 E-mail specialistportfolio@ibms.org Website: www.ibms.org

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payment, which is inclusive of the end-point assessment. Applications must be submitted by the training officer/manager, not the candidate.

- 1.7. The Institute's Specialist Training Portfolio must be completed in accordance with the Institute's instructions. Following completion of the portfolio and successful examination of the knowledge, the candidate will be eligible for the award of a discipline specific Specialist Diploma.
- 1.8. A discipline specific portfolio reflects the range of analyses that are considered to be relevant to a specialty. All sections must be completed in order to express the ability of the biomedical scientist to operate at the specialist level. Completion of the sections should follow the formal training programme that is submitted to the IBMS as part of the laboratory approval process.
- 1.9. It is accepted that some of these tests may not be performed in the candidate's own laboratory. Whilst practical skills (for example through secondment to another laboratory) may not be achievable to the level of someone performing them regularly, knowledge and understanding of its application is still required and may be examined. There may also be other tests the training laboratory includes within its basic repertoire in which the individual is additionally required to be competent. These can be assessed and then recorded in the reflective practice statement at the end of each sub-section.
- 1.10. A **signed statement** must be provided with the portfolio by the laboratory manager, which indicates the laboratory's repertoire and analyses that a specialist practitioner working in that laboratory would be expected to perform competently and without supervision.
- 1.11. To reflect the changing landscape of pathology services, provision is made for individuals who have, or wish to develop, a wider scope of practice. The Specialist Portfolio in Blood Sciences is comprised of sections that contain modules in Clinical Biochemistry, Haematology and Transfusion Science. The award is achieved by completing two or three sections in the following combinations:
 - Clinical Biochemistry and Haematology
 - Clinical Biochemistry and Transfusion Science
 - Clinical Biochemistry, Haematology and Transfusion Science

Please note: A combination of only Haematology and Transfusion Science together is not an option.

2. PURPOSE OF THE PORTFOLIO

Completion of the Specialist Portfolio expresses the ability of the biomedical scientist to operate at the specialist level in a particular discipline/s. This is defined in the following learning outcomes below which have been subdivided into three areas.

Knowledge and understanding

The successful candidate will be able to:

- a. Demonstrate knowledge and understanding of complex scientific and technical aspects of their specialist discipline including: correct procedures for handling specimens before, during and after analysis; maintenance of routine equipment; principles of in-house data management systems and quality control/assurance procedures.
- b. Demonstrate knowledge and understanding of the scientific basis of the laboratory tests and the disease process under investigation.
- c. Show an awareness of current issues and developments within healthcare and biomedical science.

These are evidenced by in-house assessments of training and examination of knowledge during the *viva voce* with the external examiner to assess the ability of the candidate to describe/discuss these aspects of their work.

Professional skills

The successful candidate will be able to:

- a. Competently perform a range of laboratory tests without immediate supervision.
- b. Demonstrate self-direction in solving problems and exercising personal autonomy in relation to scope of practice.
- c. Demonstrate a systematic application of professional knowledge and understanding in the interpretation of laboratory data to determine action based on best practice.

These are evidenced by the in-house assessments of training and portfolio of evidence.

Transferable skills

The successful candidate will be able to:

- a. Demonstrate communication skills within the healthcare environment and as part of the laboratory team. This is evidenced by the presentation.
- b. Demonstrate the ability to critically reflect in order to inform best practice. This is evidenced by personal reflective statements.

3. UNDERSTANDING THE PORTFOLIO

3.1. During completion of the portfolio, biomedical scientists will be gathering evidence of Continuing Professional Development (CPD) and competence to practice through the post-registration training they will undertake, and experience they are gaining in practice. This meets the fundamental requirements of continuing registration with the HCPC, i.e. compliance with the following areas:

- Professional autonomy and accountability
- Professional relationships
- Identification and assessment of health and social care needs
- Formulation and delivery of plans and strategies for meeting health and social care needs
- Critical evaluation of the impact of, or response to, the registrant's actions
- Knowledge, understanding and skills

3.2. Each of the modules within the discipline specific portfolio requires the candidate to demonstrate knowledge and competence elements of their practice at a postgraduate level in their specialty.

3.3. Reference to 'a range of sample types' can include blood, serum, plasma, urine, CSF, other fluids and tissues as appropriate to the routine investigation within the discipline, either as a main discipline (e.g. Haematology or Clinical Biochemistry) or a combination of disciplines (e.g. Blood Sciences). It also includes by inference, the knowledge and competence required to assess the suitability of the sample under investigation, for example lipaemic, inadequate, haemolysed, inappropriately labelled, transported, or stored samples within a specific sample type and for analysis using specific equipment.

3.4. Internal assessments

It is the responsibility of the trainer(s) to ensure that the learning outcomes described in Section 2 are met through elements a) and b) below. Evidence is generated through the internal assessment of training and filed in a single specialist portfolio of evidence that will be externally assessed as part of examining the candidate's suitability for the award of an IBMS Specialist Diploma. Once completed the elements of the module must be signed off by the trainer.

a. Questions set by trainer

Each module requires the assessment of the application of knowledge and understanding primarily through the answering of **questions set by the trainer** on the stated subject areas indicated by the aims at the beginning of each module. The portfolio is not prescriptive about the type of assessment which may be done via an oral tutorial, written questions or other suitable task. (Please note: Essays are **NOT** considered a suitable form of assessment).

b. Other evidence

Although evidence of training and assessment may be generated as part of good laboratory practice only ONE other example of evidence is required for the **Evidence of Achievement** section. This is chosen by the candidate as an example of evidence that demonstrates their knowledge and competence in performing a particular technique. The choice of evidence is justified in the **Reflective Practice Statement**.

3.5. The amount of evidence must not exceed the requirement for evidence stipulated in the evidence of achievement section (see section 6.2 of this document). Evidence must be sufficient to enable a considered judgement by the external examiner on whether the standards in terms of knowledge and skills for the module have been met.

3.6. Other examples of evidence that may be acquired during the course of training can, if the candidate wishes, be filed for reference purposes in a separate portfolio as additional evidence of competence. THIS IS ENTIRELY OPTIONAL AND IS NOT A MANDATORY PART OF THE EXTERNAL ASSESSMENT PROCESS AND THE EXTERNAL EXAMINER WILL NOT BE EXPECTED TO REVIEW THIS ADDITIONAL INFORMATION. This may include the recorded observation of practical skills, case studies or other evidence of knowledge acquired during formal study for a postgraduate award or as part of an internal training regime.

3.7. Reflective Practice Statement

The ethos of undertaking reflective practice should be the recognition that it is a naturally occurring characteristic of those wishing to develop. How the candidate completes this section is personal to their circumstances but it should be approached by recognising the responsibility for demonstrating self-awareness when analysing gaps in their knowledge. This is therefore, an opportunity to reflect on aspects of training, the application of new knowledge and skills, and how goals have been achieved.

3.8. Internal Assessor Signature

Following the EVIDENCE OF ACHIEVEMENT section the Institute's portfolio must be signed by the **internal person** who has checked that the requirements for evidence for the module have been completed.

3.9. Completion Time

The length of time to complete the Specialist Portfolio may vary but it is typically expected to take about 24 months. Whilst there is currently no time limit for completion of the portfolio there is a requirement for evidence to be current i.e. within three years of the external examination. Evidence older than three years should not be included unless, in exceptional circumstances, its relevance to candidate's current practice can be confirmed by the trainer.

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Tel 020 7713 0214 Fax: 020 7837 9658 E-mail specialistportfolio@ibms.org Website: www.ibms.org

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Please note: If a new version of the portfolio is introduced this will trigger an expiry limit of three years on any superseded version of a portfolio, commencing from the date a new version is introduced.

3.10. Re-employment in another Laboratory

The portfolio is considered to be the property of the individual as it represents a commitment by the employer for professional development specific to them. It is not 'owned' by the laboratory. If the candidate is re-employed in another laboratory and the partially completed portfolio is retained by the candidate it is at the discretion of the new employer whether or not they wish to continue with the same portfolio or restart the process. If they opt to continue with the existing portfolio the new employer is responsible for reviewing the evidence and competence of the candidate in line with requirements of their new scope of practice.

3.11. Link to Higher Degrees

Whilst the award of a higher degree (MSc) is not a prerequisite for the award of a Specialist Diploma there is the opportunity to integrate the two at the discretion of the university. For example, in-service training undertaken to complete this portfolio could be recognised by higher education institutions under the category of work-based learning and accrue academic credit towards a qualification. Equally, some of the formal education and assessments undertaken as part of an MSc degree may support in-house laboratory training for completion of the portfolio, although MSc assignments (e.g. essays) are not typically considered appropriate for the portfolio.

4. CRITERIA FOR USE OF THE PORTFOLIO

- 4.1 Only the Institute's Specialist Portfolio can be used for the purpose of recording the training of a biomedical scientist for the Institute's award of a Specialist Diploma.
- 4.2 The IBMS Specialist Portfolio is issued to the candidate with a unique case number and cannot be transferred to another individual. This case number should be quoted in any communication about this portfolio.
- 4.3 Specialist Portfolio training must take place in a laboratory approved for training at post-registration level by the Institute.
- 4.4 The Specialist Portfolio will only be issued to a named Institute member upon completion of the application form by the Departmental Training Officer or Manager.
- 4.5 The portfolio requires evidence that indicates that the candidate has applied knowledge, comprehension and analytical skills gained at undergraduate level to the (new) situation in which they work as a registered biomedical scientist.
- 4.6 The portfolio will contain a completed and signed record of laboratory training in the designated speciality, together with a reflective commentary on the learning experience and demonstration of competence. There are three key components:
 - a. The aims of each module are represented by **Knowledge** and **Competency** statements that relate to a laboratory technique or investigative method.
 - b. At the end of each module is an **Evidence of Achievement** section. Requirements for completing this based on evidence of training and internal assessment of competency are set out in Section 6 of this document.
 - c. The candidate must complete the **Reflective Practice Statement** at the end of each module to demonstrate that they can relate knowledge from several areas, draw conclusions and reflect on their own performance as an independent professional learner.
- 4.7 The laboratory training officer (or a suitable deputy) must sign and date when the training in each module is completed.
- 4.8 When the candidate is ready for external examination an application must be submitted to the IBMS by the trainer or laboratory manager.
- 4.9 A **signed statement** must be provided by the laboratory manager, which indicates the laboratory's repertoire and analyses that a specialist practitioner working in that laboratory would be expected to perform competently and without supervision.

- 4.10 If some techniques are not performed in the laboratory the candidate is still expected to be able to demonstrate knowledge and understanding, if not the practical competence.
- 4.11 If a new version of the portfolio is introduced this will trigger an expiry limit of three years on any superseded version of a portfolio. Candidates will therefore be expected to submit an application for examination within three years from the date a new version is introduced.
- 4.12 When new versions of a portfolio are introduced this will be communicated in the Biomedical Scientist, on the IBMS website and via email to training officers and candidates. It is the responsibility of the training officer and candidate to ensure the application for examination is submitted within the required timeframe. Extensions will only be considered if there are mitigating circumstances that prevented completion of training.
- 4.13 If an individual changes employment whilst completing the Specialist Portfolio and is able to transfer to another approved laboratory their portfolio is transferrable. However the laboratory which applies for the external examination is responsible for ensuring the candidate has completed all the modules and evidence requirements. The laboratory may therefore, wish to re-assess the individual's competence and/or require certain pieces of evidence to be re-submitted. In these circumstances any relevant sections of the portfolio already completed in the previous laboratory must be countersigned by the responsible trainer in the new laboratory.

5. LABORATORY BASED TRAINING

- 5.1. The IBMS Specialist Portfolio can only be completed in laboratories which hold IBMS approval for post-registration training. In-service training and assessment must demonstrate good scientific practice, based on the knowledge and competence in the stated procedures, to meet the requirements of the external examination process.
- 5.2. Information on how to achieve IBMS laboratory training approval can be found in the training guidance documentation available on the Institute website. Approval is granted on the basis of the laboratory demonstrating they meet the IBMS standards for post-registration training and there are sufficient resources in place to support the candidates training for the duration of the training programme (submitted as part of the training approval documentation).

Approval for training is dependent on the laboratory being able to demonstrate how ALL sections of the portfolio are completed in accordance with the following:

- In-service training and assessment must demonstrate the candidate has achieved the required depth and breadth of knowledge specified in ALL of the modules in the portfolio, in order to meet the requirements of the external examination process.
 - Where tests may not be performed in the candidate's own laboratory it is accepted that practical competence to the level of someone performing them regularly may be difficult to achieve, even through secondment. Whilst practical skills may not be achievable, knowledge and understanding of its application is still required and may be examined.
- 5.3. Each candidate completing the Specialist Portfolio must have an indicative training programme which sets out the sections of the laboratory they will rotate through, the expected duration in each area, the sections that are covered and how training is assessed.
 - 5.4. Several trainers may be involved in training but training should be co-ordinated and carried out under the control of a designated training co-ordinator or training officer.
 - 5.5. Candidates are considered to be registered on a Specialist Portfolio from the date of issue.
 - 5.6. The length of time to complete the Specialist Portfolio may vary but it is typically expected to take around 24 months. Whilst there is currently no time limit for completion of the portfolio, there is a requirement for evidence to be current i.e. within three years of the external examination. Evidence older than three years should not be included unless, in exceptional circumstances, its relevance to the candidate's current practice can be confirmed by the trainer.

5.7. There should be regular (typically monthly) review sessions between the candidate and an allocated trainer/mentor. These should be recorded at the front of the portfolio using the template provided. The aims of these sessions are to:

- Set training targets in line with the training programme
- Review previous work and evidence
- Highlight any issues or concerns
- Ensure the portfolio is on target for completion

5.8. Knowledge and competence sections of the portfolio must be completed for all modules within the chosen discipline(s). Candidates must demonstrate practical skills for all tests that are included in the signed statement provided by the laboratory manager (see page 4, para 1.10).

If some techniques are not performed in the laboratory the candidate is expected to be able to demonstrate knowledge and understanding (but not the practical skill) that would be applied in the practical situation.

5.9. Short periods of secondment to other Institute approved laboratories may supplement training in order for the individual to gain additional practical skills and experience.

5.10. Candidates and trainers may undertake a selection of the following activities to complete training and assess the application of knowledge and skills, i.e. the assessment of competence.

- Work-based training with direct observation of practical skills (DOPS)
- Case based discussion to demonstrate knowledge of 'output' of work
- Self-directed reading to broaden knowledge
- Tutorials and scientific discussion to explore extent of knowledge
- Reflective practice to self-assess knowledge and skills
- Question and answer sessions with trainer to test knowledge

To note: essays are NOT considered acceptable evidence for the external examiner to review.

5.11. Suggested types of evidence:

- Annotated photomicrographs
- Annotated copies of quality control graphs
- Tutorial notes for question and answer sessions
- Feedback from PowerPoint presentations by the candidate
- Training records
- Annotated result print outs
- Witness statements
- Reflective statements
- Annotated laboratory guidelines
- Photographs
- Special projects
- Method comparisons
- Annotated EQA report

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- Competency documents
- Assessment logs (must clearly indicate level of knowledge and skill achieved)
- Tables/grids
- Case studies
- Poster
- Flow diagrams
- Annotated SOP's
- Annotated presentation notes for attended talks
- Attendance certificates-with reflective statements
- Referenced diagrams
- Annotated anonymised request forms
- Risk assessments
- IBMS CPD practices
- Competency documents
- Lecture notes
- Annotated NICE guidelines annotated
- Discussion transcript/summary
- Scientific meeting minutes and reflective statements
- Audits
- Annotated journal articles and reflective statement

5.12. Evidence from all of the examples above is not required. The ONLY evidence required for the external assessment process is based on direct observation of skills and questions set by the trainer to assess working knowledge and the selected piece of work related to the knowledge and competency statements of each module as indicated in the **Evidence of Achievement** section of the portfolio.

5.13. During a training programme many pieces of paper will be generated. The candidate will need to select which pieces are suitable as evidence for the Specialist Portfolio module. The training officer should check these are appropriate and meet the requirements of the standards for external examination.

6. CONSTRUCTING THE PORTFOLIO OF EVIDENCE

6.1. Evidence Requirements

Evidence must be sufficiently relevant to enable a considered judgement by the external examiner on whether the standard for the module has been met or not met.

This judgement is made with respect to the candidate's ability to answer questions set by the trainer on the knowledge and skill components required to complete this module, and the candidate's ability to demonstrate their competence in the areas associated with the module.

All work must be signed and dated by the candidate and the trainer.

This demonstrates ownership of the work by the candidate and that it has also been reviewed and assessed by the trainer. It is expected that there is evidence of this with constructive feedback. The use of feedback is very important and improvement should be seen throughout the portfolio in response to the feedback given. An example of good evidence would be where a candidate undertakes a task, receives constructive feedback, responds to this and progress can be seen.

A plagiarism statement to confirm the portfolio is the candidate's own work.

It is important for the candidate to acknowledge the various resources used during their training and in their evidence. **Any evidence of plagiarism will result in failure of the portfolio and the candidate will be required to complete a new Specialist Training Portfolio.**

There should be annotation on any piece of evidence that is not the candidate's original work e.g. print out of results.

- Every page should be annotated; if you can't comment on it, it shouldn't be in the portfolio
- Highlighting and underlining alone is insufficient- it must be obvious why it has been offered up as evidence
- The candidate needs to demonstrate their own knowledge and understanding
- Link it back to the standards, make it relevant
- Lack of annotation will result in that piece of evidence being discounted

Evidence needs to be clearly structured. A content/index list should be provided and each piece of evidence should be clearly linked to the relevant module.

Full cross-referencing is important as this allows the external examiner to navigate the portfolio easily.

6.2. Evidence of Achievement

“Candidate has been assessed by trainer to work in accordance with standard laboratory procedures”.

No additional evidence is required for this section as a signature is sufficient. Training officers can link this with in-house laboratory competence training and records.

This section must be signed by an appropriate competent member of staff who is responsible for confirming the candidate’s ability, and may not necessarily be the training officer.

“Candidate has answered questions set by trainer on the knowledge and skill components required to complete this module”.

This ensures the laboratory has comprehensively assessed the candidate’s knowledge against the standard. Remember this is at specialist level and therefore higher than registration. Questions should be linked to the learning outcomes in Section 2 page 5 of this document and focus on specific aspects of the test or procedure that the candidate can be expected to have working knowledge of, i.e. without relying on the SoP or other reference documents.

This section must be signed by an appropriate competent member of staff who may not necessarily be the training officer.

There are a variety of ways of conducting and evidencing this assessment:

- **Written short questions and answers**
 - This requires evidence that an appropriate competent person has marked the work and provided feedback to ensure it is of a specialist standard
 - This is an opportunity to demonstrate the progression of the candidate’s training by showing responses to feedback
 - The candidate needs to be able to communicate what they have learned
- **Verbal questions and answers**
 - This could be evidenced with a witness statement by the person who tested the candidate’s knowledge and the areas covered
 - A set of questions with expected answers could be prepared with them being ticked off as the candidate answered them
 - This method would be good preparation for the laboratory tour, which examines their working knowledge at specialist level
- **Multiple choice questions (MCQs)**
 - Can be delivered as a ‘homework’ assignment or as a test

- Can be used for multiple candidates although beware of 'sharing' between multiple candidates

"One other piece of evidence chosen by the candidate as an example of their fitness to practice in performing the named procedure"

This piece of evidence is selected by the candidate. It should demonstrate the application of specialist level knowledge and skill. This is an opportunity to choose something that the candidate finds interesting, for example:

- Case study
- Annotated set of results
- Reflection on a training session
- Reflection on errors made during training
- Annotated morphology images
- Comparative lists (advantages and disadvantages) of techniques

This piece of evidence must relate to the standard and the candidate needs to justify its selection. This piece of evidence is not required to cover the whole of the standard.

7. END-POINT ASSESSMENT PROCESS

- 7.1. On completion of training and in accordance with the requirements of the Specialist Diploma, the candidate's employer (laboratory manager or training officer) should apply to the Institute for the appointment of a visiting external examiner.
- 7.2. Accompanying the application should be a signed statement from the laboratory manager testifying to the range of laboratory investigations undertaken by the candidate. This will be used by the external examiner to guide the areas for questioning during the laboratory tour.
- 7.3. The appointed external examiner will be instructed by the Institute to contact the laboratory to arrange a mutually acceptable date and time for the assessment visit. Documentation guiding the assessment visit will be sent by the Institute to both the examiner and the training officer/manager.
- 7.4. The aims of the end-point examination procedure are to:
 - *Independently verify that competence has been met (portfolio of evidence) and assess the standard of the candidate for suitability for the award of a Specialist Diploma (through review of the evidence, presentation and viva voce examination during the laboratory tour)*
 - *Ensure consistency between disciplines and between laboratories*
 - *Check that professional body guidelines and criteria are applied nationally*
 - *Reassure the employer that their training is to the appropriate standard*
 - *Disseminate areas of good practice where appropriate*
 - *Provide constructive feedback on areas of unsatisfactory practice*
 - *Make a recommendation regarding the assessment of the candidate (Pass/Fail) to the Institute*
 - *Make recommendations regarding the ongoing training approval status of the laboratory*
- 7.5. **Role of the external examiner appointed by the Institute**

The external examiner for Specialist Portfolios can only be appointed by the IBMS. This individual reviews the Specialist Portfolio Record of Laboratory Training to check all modules have been signed off and to verify appropriate training has been undertaken through review of the portfolio of evidence. The external examiner will assess the candidate's knowledge and understanding of their specialty through their oral presentation and examine their knowledge during the laboratory tour to determine their suitability for the award of the Specialist Diploma.

It is not the role of the external examiner to assess the practical competence of the candidate. This is the responsibility of the trainer, the evidence of which is exemplified in the portfolio.

The external examiner's role is to verify this has taken place (by checking the portfolio for evidence of training and assessment of competence) and also assess the ability of the candidate to demonstrate an understanding of the scientific basis for tests, quality control, quality assurance, quality management, governance, health and safety and use of equipment commensurate with the learning outcomes in the portfolio. As a representative of the Institute the external examiner will also make an assessment on whether or not the laboratory is complying with IBMS standards for approval of the laboratory for post-registration training.

7.6. External Examination Visit

The candidate needs to be able to demonstrate knowledge related to the modules in the portfolio and have an in-depth working knowledge of everything within their scope of practice. Candidates are therefore advised that it is worth practising both the presentation and the laboratory tour before the external examination: knowing something and being able to communicate it clearly and concisely is a skill which comes with practice.

As an external representative of the Institute, the examiner must adhere to the Institute's guidelines and represent the Institute's standards. Whilst promoting good practice it is important to resist any temptation to impose personal standards and opinions on the training laboratory.

The following procedure enables the Institute to award a Specialist Diploma to individuals who meet the criteria and also to confirm ongoing approval of "Training Laboratory" status.

Stage 1: Presentation (Indicative time 15-20 mins)

The presentation is to ensure that the candidate can demonstrate an understanding of their scope of practice and role in the laboratory.

The presentation should usually be in PowerPoint format. If projection facilities are not available it can be viewed on a computer screen. It is expected that the 15-20 minute presentation will contain the following elements:

- An indication of the candidate's scope of practice and how it has developed since registration based on the reflective practice elements of the portfolio;
- Current developments in the laboratory or recent trends;
- Special interests or professional activities of the individual.

Presentations need not be overcomplicated, should be structured to reflect the areas in which experience has been gained and act as a prompt for the dialogue, which supports the work done in the Specialist Portfolio.

The candidate's presentation skills are not being tested therefore notes are acceptable but not encouraged. They should only be used to support the PowerPoint presentation slides.

The external assessor may wish to ask some questions related to the presentation or seek points of clarification.

Stage 2: Portfolio assessment (indicative time 90 mins)

External examiners should aim to review the portfolio within 90 minutes, which is sufficient to look at evidence contained in a single lever arch file. More evidence than this is deemed as excessive although examiners should not use this as a sole reason to fail the candidate. **It is acceptable for the external examiner to check with the laboratory before the visit that evidence is limited to one file, and if not, request that it is.**

Evidence for the portfolio is prescribed in the EVIDENCE OF ACHIEVEMENT section and this is the ONLY evidence that is required. Evidence should be indexed in the same order as the Specialist Portfolio modules.

The Evidence of Achievement section has three standard requirements:

- a. Observed by trainer to carry out a specific function/investigation (signature as evidence). This does not require a separate witness statement
- b. Answered questions set by trainer (single piece of evidence to demonstrate this);

“Questions asked by the trainer” are informed by the knowledge component and competence requirements of each module and should be linked to the learning outcomes in Section 2 page 5 of this document. Evidence should support the fact that candidates understand their role and are competent to perform the work, either through questions they have been asked, set (and marked) questions or notes from tutorials. Evidence must be dated and signed by the candidate/training officer as appropriate.

- c. Single piece of evidence chosen by the candidate (not the trainer) to reflect an aspect of the training.

The third piece of evidence is selected by the candidate and chosen to demonstrate an aspect of the training and competency assessment. This choice is briefly justified in the reflective practice statement (e.g. *as my third piece of evidence I chose to annotate a laboratory printout of results from a test I performed because...*).

The reflective practice statements are intended to demonstrate that the candidate has developed in the application of their practice and can apply what they have learned in the context of the module. The external examiner will review these

statements which should be supported by the evidence contained in the portfolio. This may lead to further discussion on the laboratory tour.

To note: Additional (optional) supporting evidence of training may be provided in a separate portfolio and if available referred to by the External Examiner, if they feel the evidence provided in the first instance is inadequate.

Stage 3: Laboratory tour with *viva voce* (maximum 60 mins)

The tour should not exceed 60 minutes which is considered to be sufficient time to examine the candidate's knowledge, even in a large department. Specimen reception should **not** be included in the tour; this will have been covered in the IBMS Registration Portfolio.

Examiners should proactively question the candidate according to the standards (found on the examiner's form) below. Remember this is specialist level.

Candidates are expected to be able to answer questions on the following:

- correct procedures for handling specimens, pre- and post-analysis
- application of health and safety requirements
- principles of laboratory investigations
- practical aspects of particular tests
- significance of abnormal results, possible causes and further testing indicated
- correct operation and maintenance of equipment
- principles of quality control and quality assurance

Although the laboratory manager's statement will highlight the candidate's scope of practice it is reasonable to ask questions on any aspect covered in the portfolio. A theoretical knowledge is required as a minimum on tests performed outside of the department.

The candidate should be able to respond to questions asked by the external examiner based on the knowledge components of the portfolio and their scope of practice. In doing so they demonstrate (in conjunction with their presentation and portfolio of evidence) that they meet the learning outcomes detailed in the introductory section of the portfolio.

Questions may include references to equipment in use including, microscopic observations on slides that might be available in the laboratory or printout of results.

If the candidate is involved in training it is reasonable to expect them to explain how they do this. They should be able to explain NEQAS results as part of their knowledge of quality assurance, and demonstrate that they know how to apply health and safety.

The external examiner is required to record examples of questions in their report.

Stage 4: Approval of laboratory for specialist training

The Institute has published guidance and criteria for approval of laboratories for pre- and post-registration training. Based on these criteria the laboratory tour also gives the external examiner an opportunity to satisfy themselves that the laboratory has the appropriate requirements for post-registration training against the checklist on the examination form. This is provided as separate documentation and is available on the Institute's website.

Stage 5: Feedback comments to trainer and candidates.

The external examiner may wish to have an initial meeting with the training officer alone in order to raise and address any issues or concerns which may have been identified during the examination.

When meeting with the candidate, the outcome (Pass or Fail) must be communicated to the candidate prior to any feedback being provided.

If the candidate has passed, feedback may be provided at the discretion of the examiner.

If the candidate fails, the examiner will provide detailed feedback as to the issues and guidance on how to address them. This will be recorded in the examiner's report. A timeline will be agreed by the candidate, training officer and examiner to address any shortcomings. A subsequent full or partial examination will be required and this must be arranged through the IBMS.

The external examiner should also decide whether or not they consider that the laboratory continues to meet IBMS laboratory approval standards for post-registration training and recommend in their report either that they pass or fail to meet the required standards.

If the laboratory fails, the examiner will provide full details in the examiner's report. The IBMS will then follow up with the laboratory and provide support and guidance to address the issues identified.

Please note it is possible for the candidate to pass and the laboratory to fail (and vice versa).

Feedback should be concise, constructive and based on the Institute's guidance in relation to Specialist Portfolio training and completion. Personal opinions or advice may be offered in the context of examples of good practice, but it should be clear they are personal and **NOT** a specific requirement of the Institute.

Some laboratories may wish to seek further guidance from the examiner with regards to advice about evidence and completing the portfolio. This is at the discretion of the examiner and should be taken outside of the normal examination process. It should also be noted that some of this advice may be based on the personal knowledge and experience of the examiner and may therefore vary between examiners.

Appeals

Unsuccessful candidates will have the opportunity to appeal on procedural matters related to the examination process. Appeals must be made by the training officer or manager and submitted with the laboratory feedback form within one week of the examination. Appeals must clearly state the reasons for the appeal with supporting evidence where appropriate. Appeals will be considered by an appeals panel of the external examiner and two HCPC registered members of the IBMS Council who are not associated with any aspect of the application.

Stage 6: Completion of reports

Both the external examiner and the laboratory trainer are required to submit reports to the Institute. This provides an opportunity to share the feedback, and reflect on any issues that may have arisen. Receipt of these documents is necessary for the issue of the Specialist Diploma certificate.

Specialist Diploma examination report – to be completed by the examiner and sent to the IBMS within one week of the examination. (A copy may be made available to the training officer).

The Institute requires a full, detailed report of the examination. The report should include (in brief) a summary of the topics covered in the laboratory tour, range of evidence included in the portfolio, areas which were weak (but sufficient) which could be expanded on, and areas in which the candidate performed well. Reports which merely confirm the standards were met (through use of the check boxes) will be returned to the examiner for further comment.

Laboratory feedback form – to be completed by the training officer and sent to the IBMS within one week of the examination. This form is to provide them with the opportunity to communicate their, and the candidate's, experience of the examination process. Completion of this form is a mandatory requirement for continued approval of the laboratory for training. It enables the Institute to audit all aspects of the examination process and to maintain consistency and parity of the examination process on a national level. It is designed to be constructive. Failure to submit the report will delay the award of the Specialist Diploma.

The IBMS may then provide follow up feedback on the basis of the report and feedback form as appropriate.

8. QUALITY ASSURANCE

8.1. Overview

The Institute's Council through its Education Department and Education & Professional Standards Committee is responsible for initiating and managing the review of its standards, guides, policies and processes pertaining to Institute awards and examinations.

The Chief Executive, President, other Council members and discipline specific experts inform operational and strategic implications of developments arising from Institute stakeholder groups that may impact on curriculum or professional practice.

Responsibility for the quality of awards provided by the Institute lies with the Executive Head of Education and senior education team but monitoring of this takes place at several other points:

- Executive Head of Education and the education team undertake the day-to-day responsibility for programme provision
- All external examiner and laboratory feedback reports are reviewed by the education team. Adverse comments or observations that are reported specifically for the attention of the Institute are reviewed by the senior education staff and follow-up action initiated
- Incident reports are made to the Education and Professional Standards Committee which considers overall issues affecting the quality of the programme

8.2. Specific processes related to Specialist Portfolios are:

- Specialist advisory panels add their voice and perspective to the process of review and continued improvement of the programmes
- Specialist examiner training is reviewed and updated in response to changes in the portfolio content and assessment process

8.3. Professional development opportunities for those involved in various aspects of the programme include:

- IBMS Specialist Examiner training days
- Annual Council and Advisory Panel update and development meetings
- IBMS training conferences and the biennial Congress
- Annual/biennial CPD officer update days
- Local presentations

9. FREQUENTLY ASKED QUESTIONS

Eligibility

Q1. *I am not a member of the Institute. Can I complete the specialist portfolio?*

No. A candidate must have current corporate membership of the Institute of Biomedical Science for the duration of the 'study' period. Corporate classes are Licentiate, Member, or Fellow. Associate members are not eligible.

Q2. *Why do I need to complete the Specialist Portfolio?*

There are three good reasons for this:

- a. Holding a Specialist Diploma demonstrates that you have been assessed against a benchmark standard for a specialist practitioner in your chosen discipline
- b. it can be used by your employer to demonstrate specialist knowledge and skills linked to career and pay progression
- c. it gives you eligibility to apply for upgrading your class of Institute membership from Licentiate to Member

It is very different from the registration portfolio required for HCPC registration which is used to evidence that an individual has met a broad threshold standard of fitness to practise which is profession-specific, rather than based solely on a single discipline.

Q3. *Who should pay the fee for the Specialist Portfolio?*

This is a local decision. Both the employer and individual benefit from the opportunity provided by the professional body to facilitate, evidence, and formally recognise the acquisition of specialist skills and knowledge. The charge is a nominal one-off amount towards providing this service to Institute members, and will also cover external examiner expenses for the endpoint assessment.

Q4. *When can my portfolio be assessed?*

You are required to be a corporate member of the Institute for a minimum of one year before a specialist portfolio can be externally assessed by the Institute. Candidates must maintain their membership from the time their portfolio is issued to the award of the Specialist Diploma (see also Q1).

Q5. *How long will it take for a date to be set for my assessment?*

This is dependent on the availability of an external examiner. External examiners volunteer to undertake examinations and allocation depends on factors including examiner availability, geographical location and discipline specialism. It could be up to

two months from receipt of your application form. Please apply well in advance of your preferred date in order for the Institute to appoint an external examiner.

Portfolio Organisation and Evidence

Q6. *When I completed the registration portfolio I was required to have one file of evidence. Must I approach the specialist portfolio in a similar way? Does it involve as much work or do I simply fill in the portfolio?*

The principles applied to the registration portfolio also apply to the specialist portfolio. Evidence required for either should not exceed one lever-arch file. You must meet the evidence requirements specified for each module.

Q7. *Can you provide advice on how to present, organise and complete the specialist portfolio?*

There should be an index so that evidence is easy to locate and the evidence should be organised to match the sections of the portfolio.

Q8. *What evidence do I need?*

The type of evidence is indicated by the Evidence of Achievement section, and this is the ONLY evidence required. It must of course be relevant to the knowledge and competence statements for the module.

Q9. *In order to sign off some of the sections it says "answered questions set by trainer..." (on a particular subject). Does this mean that there is no point getting other evidence for this, and that the only evidence required are some questions I have answered? Also I have several pieces of evidence for some sections but haven't yet been given any questions to answer from my trainer, so I'm guessing this section cannot be signed off until I've done them?*

The requirements for the evidence of achievement sections are clearly stated. All of them have "questions set by trainer". It is essential that your trainer conducts an assessment exercise that tests your knowledge as applied to the particular techniques - this is the purpose of the "questions asked by trainer". Once completed and you have evidence of this requirement the trainer can sign off this part of the portfolio.

Q10. *Can I use evidence from a laboratory I worked in before I started my Specialist Portfolio? I used to work in a reference lab and have copies of published papers with my name on which cover techniques in the Specialist Portfolio but not done in my current laboratory. Obviously my trainer couldn't sign to say they'd witnessed my practical skills, but would that be ok to cover the principles?*

The requirements for the evidence of achievement sections are clearly stated and should be relevant to the laboratory in which you are being trained and assessed. (Published papers could be placed in your professional portfolio). The trainer is

responsible for assessing your knowledge and competence before signing off your portfolio. (See also Q15).

Q11. Who signs?

The Evidence of Achievement section requires the trainer's name and signature, and therefore should be signed by the person who assesses competence at the end of the relevant training for the module. Underneath is an area in which to confirm the section has been completed and the evidence assessed and checked internally (e.g. by the training officer). In some instances this will be the same person.

Q12. Is the person who signs the person who actually trained you in that technique, or must it be the training officer? Is it okay for a Band 5 to sign (if they did the training) or does it have to be a more senior person? I have a very "reluctant" training officer!

Someone in the laboratory who has assessed your competence should provide the signature for the portfolio. As long as they are competent to train and assess you at a specialist level, the grade of staff should not be an issue. However, the training officer (or someone senior) should take responsibility for assessing the evidence is appropriate for each section and sign the section underneath the Evidence of Achievement section.

Q13. How do I complete the reflective practice statements at the end of each section?

The aim of this part of the portfolio is to encourage you to think about your experience and how you can apply your skills in other areas. Try to capture what the laboratory does in relation to the topic, what you have learned, and how you apply this in the context of patient diagnosis. Future learning is identified by how you wish to build on this experience. It is very much an expression of your personal experience and an awareness of your practice.

Q14. Are there any courses available to support completion of the Specialist Portfolio?

No specific courses are run by the IBMS, although you may wish to contact your local IBMS branch or university to see if anything is available or can be arranged. Some universities have developed MSc courses with work-based modules linked to the specialist portfolio.

Q15. Do I need to complete my training in one laboratory?

No. There is no requirement to complete in one laboratory and in some cases it may be desirable to have a secondment to another laboratory for some modules. However, each laboratory must be approved by the Institute for training.

Q16. I have been working as a trainee biomedical scientist, then as a Band 5 for almost two years in a specialist laboratory (four years in total), but only applied for my Specialist Diploma book after changing my job and starting an MSc. Should the date

of my specialist training be when I became registered with the Health and Care Professions Council (HCPC) or when I received my portfolio?

It is normal for a newly registered biomedical scientist to commence a period of specialist training in order to consolidate and extend their skills and knowledge in their specialist discipline. Therefore, you may have accumulated evidence suitable for your portfolio in advance of receiving it. However, there is a requirement for evidence to be current i.e. within three years of the external examination. Evidence older than three years should not be included unless, in exceptional circumstances, currency can be confirmed by the trainer.

Q17. Can I use anything I sent for assessment for my MSc, as I completed this while HCPC-registered for the past two years?

It may support the acquisition of knowledge for your training but evidence should be specific to your training and assessment in the laboratory.

Q18. Do I need to complete all sections of the portfolio?

Yes. However, not all sections require evidence of practical competence (it may state 'Be able to describe...'). Similarly, some skills may be transferable such that, together with knowledge, competence in some techniques may be considered to be achievable, even if the laboratory does not perform the method routinely.

Where tests may not be performed in the candidate's own laboratory it is accepted that practical competence to the level of someone performing them regularly may be difficult to achieve, even through secondment. Whilst practical skills may not be achievable knowledge and understanding of its application is still required and may be examined.

Q19. How long does training take?

Although training can be expected to take up to two years after registration, it may be possible to complete the portfolio in less time if an individual has previous relevant experience to build upon for their specialist training (e.g. experienced gained in a single discipline while on a 12-month university placement).

Q20. As a training officer I have just received a specialist portfolio for a member of staff. How best should I proceed?

There can be no substitute for careful reading of the Guidance to Candidates, Trainers and External Examiners, relevant articles in The Biomedical Scientist and the Education and Careers/Specialist Portfolios section of the IBMS website. You may also wish to contact training officers in other departments to share ideas and good practice so that you fully understand what is required. The crux of the qualification is the ability of the individual to articulate knowledge relevant to their specialist practice (e.g. training junior staff).

Q21. The portfolio says: "Answered questions set by the trainer". What questions do I set?

Questions must relate to the knowledge and competence sections and are informed by your own professional 'working' knowledge of the principles and application of the techniques. The level of knowledge should reflect that required of a specialist practitioner (see Section 2 of this document). Questions may be verbal during a tutorial session (if so, keep a record of them), written short questions and answers or multiple-choice exercises. The format is at the discretion of the individual trainer and will depend on local circumstances.

Specialist Practitioner Status

Q22. Do I need the Specialist Diploma to advance my career?

Although the Institute's qualifications are not mandatory for professional advancement, they do provide a recognisable method by which the employer can measure someone's ability to practise post-registration at a specialist level in a particular discipline or disciplines.

Q23. When can I work out-of-hours?

When your employer (and yourself) believes you are competent. The requirements for out-of-hours working are defined by the employer and depend on the scope of practice required to perform the out-of-hours laboratory service competently to the required standard. As with the Registration Portfolio, the Specialist Diploma may link to some, but not necessarily all, of the service requirements.

Q24. I am changing disciplines. Do I need to undertake a second Specialist Portfolio?

Not necessarily. There is no requirement to complete a second Specialist Portfolio; however, there is a requirement under HCPC regulation to be competent in one's scope of practice, and the Specialist Portfolio is one way you can gain this competence and evidence it.

Q25. I work in a Blood Sciences department. Which Specialist Portfolio should I apply for?

Your laboratory manager must apply on your behalf for the most appropriate discipline-specific portfolio that represents the bulk of your scope of practice (i.e. test repertoire) or they could apply for the Specialist Portfolio in Blood Sciences.

Q26. Will there be Specialist Portfolios in Cellular Sciences or Infection Sciences

The Institute is committed to providing qualifications that meet the needs of members and are relevant to practice as a biomedical scientist. Specialist Portfolios in Cellular Sciences or Infection Sciences will be developed in the future, if there is sufficient demand for them.

Institute of Biomedical Science, 12 Coldbath Square, London EC1R 5HL

Tel 020 7713 0214 Fax: 020 7837 9658 E-mail specialistportfolio@ibms.org Website: www.ibms.org

Specialist Portfolio Guidance for Candidates, Training Officers and External Examiners

10. GLOSSARY

The following terminology may be used throughout the portfolio.

BE AWARE OF	A general appreciation of the content of the key task.
KNOW	A working knowledge (can describe) of the facts associated with the key task.
UNDERSTAND	Thorough comprehension (can explain) of the principles and concepts of the content of the key task.
COMPETENT	Has the ability to perform a test, procedure or area of practice to a set standard on more than one occasion, in a consistent manner and with minimal or no supervision, together with a thorough comprehension of the principles and concepts of the content of the key task.
UKAS	United Kingdom Accreditation Service.
HCPC	Health and Care Professions Council.
SOP	Standard Operating Procedure.
SoP	Standards of Proficiency.

11. Additional Resources and Reference Documents available on the Institute of Biomedical Science website www.ibms.org

The following documents are freely available in the public area of the IBMS website.

Good Professional Practice for Biomedical Scientists

Benchmark guidance summarises current regulations and guidance relating to laboratory medicine, provides information on generic requirements set by regulation and clarifies how these relate to biomedical science.

Institute's Code of Conduct

The Code consists of principles, which Institute members are expected to observe in the interests of patient care and in order to promote confidence in the profession of biomedical science.

Clinical Laboratory Standards for IBMS Qualifications and Guidance for Training Laboratory Management and Approval

The IBMS approves laboratories for training of its portfolio based qualifications. These standards look at laboratory training, standards of good practice and outlines best practice for the management and delivery of laboratory training.

Equal Opportunities and Diversity Monitoring Policy IBMS QM 801

<https://www.ibms.org/go/members/join-ibms/application-forms>

Complaints Handling Process

<https://www.ibms.org/contact-us/customer-service/>

In addition for IBMS members only

Institute's CPD scheme The IBMS CPD scheme encourages members to maintain, improve and extend their knowledge, skills and practice for the purpose of maintaining Continuing Professional Development (CPD).



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Contact: Education Department

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