CERTIFICATE OF COMPETENCE BY EQUIVALENCE (BIOMEDICAL SCIENTIST)

Version 5.0

Programme Handbook 2023-2024

5HL
ite: v
book
V

CONTENTS

1. Introduction

The term biomedical scientist is the protected title for those who work in healthcare and carry out a range of laboratory investigations and scientific techniques on tissue samples and fluids to assist in the diagnosis of disease, evaluate the effectiveness of treatments and provide expert advice for the treatment of patients and prevention of disease.
Those wishing to use the protected title are required by statute to register with the Health and Care Professions Council (HCPC) www.hcpc-uk.org which is the regulatory body, created under the 1999 Health Act.

In July 2003, the Privy Council approved the HCPC standards of proficiency for the safe and effective practice of registrant biomedical scientists. The standards have been subsequently reviewed by the HCPC and the most recent standards of proficiency were published in 2022 and implemented from 1st September 2023.

The role of the Institute of Biomedical Science (the Institute/IBMS) www.ibms.org in this process is as the awarding body for the Certificate of Competence. This award provides evidence that individuals have met the competency required to demonstrate the HCPC standards of proficiency (SOPs) for biomedical scientists, are 'fit to practice' as a biomedical scientist and are therefore eligible to apply for professional registration with the HCPC. The IBMS has been approved by the HCPC to award the Certificate of Competence since 2010.

The Certificate of Competence by Equivalence (Biomedical Scientist) is an award based on the assessment of experiential learning, acquired from the combination of previous academic qualifications and ongoing professional practice. It provides a route for those who already have professional experience at a level at or above the threshold level for statutory registration for biomedical scientists. Candidates will be able to demonstrate they have met the HCPC standards of proficiency in a manner equivalent to the existing programmes accredited by the IBMS and approved by the HCPC.

This award allows recognition of individuals working in the healthcare sector who have considerable professional practice experience in the context of, or aligned with, biomedical science but for which there is no other vehicle for them to demonstrate they meet the HCPC standards of proficiency for biomedical scientists.

To avoid confusion with the HCPC's assessment of overseas applicants the applicants for the Certificate of Competence by Equivalence (Biomedical Scientist) who hold a non-UK degree will only be considered if they have the pre-requisite experience from working in biomedical science in the UK.

2. Programme Rationale

The Certificate of Competence by Equivalence (Biomedical Scientist) is an award granted to an individual by the IBMS upon successful completion of a robust assessment process that demonstrates the required knowledge, skills and behaviour against the HCPC standards of proficiency. This process will determine equivalence to the outcomes of HCPC approved and/or IBMS accredited programmes.

2.1. The award is based on HCPC standard of education SET 1.1 that states the HCPC Council *"normally expects that the threshold entry route to the register for biomedical scientist will be: Batchelor degree with honours with the Certificate of Competence awarded by the Institute of Biomedical Science, or equivalent".*

2.2. In the context of education, training, qualifications and experience, equivalence is the alignment of two directly comparable processes, even though the paths to achieving them are different.

2.3. The equivalence process is required for a number of reasons:

- To facilitate the transition in the workforce from unregulated job titles to the protected title of biomedical scientist which is commensurate with the job function.
- To provide assurance for employers, patients and the public regarding all diagnostic laboratories where the protected title of biomedical scientist is appropriate to qualified staff.
- To ensure that individuals from other national models of training for healthcare science can gain appropriate recognition and regulation for their scope of practice in biomedical science.
- To permit continued diversity of individuals from scientific and health backgrounds to enter into biomedical science.

2.4. The equivalence award has been created for applicants in the UK with relevant professional experience and qualifications who wish to register as a biomedical scientist.

2.5. To successfully complete the programme, candidates will be expected to demonstrate that they meet the threshold standards of knowledge and skills defined in the current QAA subject benchmark statement for biomedical science and biomedical sciences (2023) and the current HCPC standards of proficiency for biomedical scientists (2022).

2.6. The evidence collated should be mapped to the modules in the Certificate of Competence by Equivalence (Biomedical Scientist) portfolio and each piece of evidence should clearly state which HCPC standards of proficiency are being demonstrated.

2.7. The evidence provided in the Certificate of Competence by Equivalence (Biomedical Scientist) portfolio will be assessed by a panel of three: a lay person, an academic and a professional reviewer. The reviewers will agree the outcome of the portfolio submission and if the candidate can proceed to the final assessment, or if further evidence is required.

2.8. Candidates who are permitted to proceed to the final assessment based on their successful completion of the Certificate of Competence by Equivalence (Biomedical Scientist) portfolio will have a viva voce (oral assessment) with the professional reviewer (ie biomedical scientist) to confirm their eligibility for the award of Certificate of Competence by Equivalence (Biomedical Scientist).

2.9. Upon award of the Certificate of Competence by Equivalence (Biomedical Scientist) individuals will be eligible to apply to the HCPC for registration as a biomedical scientist. This approach will give graduates of the programme the correct foundation for recognition as a biomedical scientist in their current role and beyond.

3. Programme Admissions

3.1. Entry Requirements

3.1.1. Applicants will have a variety of relevant qualifications and experience and will be considered on an individual basis.

3.1.2. Applicants will be required to evidence periods of professional experience in health or scientific settings that equates to three or more years in a role of a biomedical scientist.

3.1.3. A Bachelors honours level qualification is a pre-requisite for a Certificate of Competence by Equivalence (Biomedical Scientist) to be awarded. If numeracy and literacy skills are not part of the degree programme it is essential that the applicant demonstrates evidence of numeracy and literacy skills at this level.

3.1.4. Applicants must submit a current basic DBS check

3.1.5. Applicants are required to submit a self-declaration as part of the application.

3.1.6. If English is not the applicant's first language evidence of English language competency to IELTS 7.0 (with no element falling below 6.5) must be provided.

3.1.7. The IBMS operates an equality and diversity policy which can be found here: https://www.ibms.org/resources/documents/ibms-equality-and-diversity-policy/

3.1.8. The initial application process is completed by submitting copies of several documents. These are detailed in the Application form for the Certificate of Competence by Equivalence document.

Where applicants require assistance with completion of the application, they can contact the IBMS Education Department equivalence@ibms.org.

3.2. Application Rules

3.2.1. Only one application can be made at a time. Re-applications are permitted but must include how the applicant has addressed the outcomes previously determined as being unsatisfactory.

3.2.2. A non-refundable £50 administration fee must be paid at the time of application and the outstanding balance will be collected on acceptance to the programme and before the portfolio is released.

3.2.3. If a fraudulent submission is suspected of being made, other external bodies may be contacted for information. Applicants who are considered to have deliberately made fraudulent applications will be informed they are not permitted to continue, although they have the right to appeal within the structure of the process.

3.2.4. As an education provider, approved by the HCPC to deliver four routes to registration as a biomedical scientist, the IBMS is required under the HCPC Standards of Education and Training section 2.4 to ask about criminal convictions as part of the admission to its approved programmes of study. To fulfil this requirement the applicant must undertake a basic DBS check to be completed as part of the application and admission process for the IBMS Certificate of Competence by Equivalence (Biomedical Scientist) programmes.

3.2.5. Applicants are required to submit a self-declaration as part of the application to this route. Failure to disclose full information or any deliberate misrepresentation of information can be a serious matter and will invalidate the application for the equivalence route and may also affect their ability to register with the HCPC as a biomedical scientist.

3.2.6. Following initial screening, applicants who require a period of supplementary education and / or training before submission or re-application are provided with a report summarising the further outcomes that need to be achieved. The expectation is that individuals will engage in supplementary education and / or training through agreed systems that are effective in meeting the HCPC standards of proficiency.

3.2.7. Once accepted onto the programme, candidates are expected to comply with the HCPC standards of conduct, performance, and ethics (updated in 2023 to be implemented in September 2024) as these are reflected in the standards of proficiency against which the candidate will be providing evidence in their portfolio. Their understanding of the implications of the standards of performance and ethics must be confirmed in the application form. Failure to comply with these standards of conduct, performance and ethics could lead to withdrawal from the programme.

3.2.8. If, during the programme, there are any issues or concerns about a candidate's profession related conduct this should be reported to the IBMS (as the education provider for the HCPC) as this may impact on the candidate's future registration with the HCPC. Concerns should be submitted to the IBMS Executive Head of Education in written form. A report will then be provided to the assessment panel who will make a decision on whether or not the evidence of unprofessional conduct affects the candidate's eligibility to apply to the HCPC for registration as a biomedical scientist.

3.2.9. As part of this application process for the Certificate of Competence by Equivalence, applicant data (including any sensitive personal data) is held by the IBMS on a secure database for the purpose of maintaining an accurate record of application.

4. Applicant Support

4.1. Applicants are not required to be members of the IBMS to complete the Certificate of Competence by Equivalence (Biomedical Scientist) although this is strongly recommended. All applicants can contact the IBMS Education Department staff (equivalence@ibms.org) for support in relation to completion of applications, evidence for completion of portfolios, application progress and outcomes. Additional information and guidance documents on professional standards are also freely available from the IBMS website. https://www.ibms.org/home/

4.2. Following initial screening, candidates admitted to the programme will have additional support from workplace trainers and mentors. The training environment

at the workplace is expected to comply with the IBMS standards for pre-registration training laboratory approval.

4.3. Candidates and their mentor will be asked to complete regular feedback meetings to monitor progress and provide an opportunity for any problems to be highlighted and resolved.

4.4. Applicants can apply for extensions to periods of evidence collection and portfolio completion by writing to the IBMS Education Department (equivalence@ibms.org) and formally setting out extenuating circumstances for the extension. Extenuating circumstances will be reviewed by the IBMS Executive Head of Education and Education Manager and an extension may be granted. Durations of extensions may vary but the maximum period for an extension before reapplication is required is usually 6 months (i.e. a total of 18 months to submit evidence).

4.5. Applicants can make a complaint at any time about the equivalence process. Complaints will be dealt with in accordance with the IBMS complaints process which can be found at https://www.ibms.org/contact-us/customer-service/

5. Certificate of Competence by Equivalence (Biomedical Scientist) Portfolio Information

The IBMS Certificate of Competence by Equivalence (Biomedical Scientist) has been mapped against the standards of proficiency for biomedical scientists published by the HCPC.

Due to the overlapping nature of some standards of proficiency, individual standards have been grouped into modules that relate to specific areas of practice under two sectional headings: Professional Conduct and Professional Skills and Standards. The purpose of this is to relate the standards to distinct areas of practice and to reduce duplication of evidence.

5.1. Professional Conduct

This is core to the principles of fitness to practise and is defined by standards that relate to professional roles and conduct. The relevant modules grouped under Professional Conduct are:

- Module 1: Personal Responsibility and Development
- Module 2: Equality, Diversity and Inclusion
- Module 3: Communication
- Module 4: Patient Records and Data Handling
- Module 5: Professional Relationships

5.2. Professional Skills and Standards

This is core to the principle of applicants being able to show they have the skills required to practise as biomedical scientist.

- Module 1: Application of Professional Knowledge
- Module 2: Health and Safety and Wellbeing
- Module 3: Quality
- Module 4: Performing Standard Investigations
- Module 5: Research and Development

The HCPC standards of proficiency have been mapped to this portfolio structure and are shown in Table 5.1 on the next page.

The basic knowledge and clinical laboratory specialisms that are required from the QAA Subject Benchmark Statement for Biomedical Science and Biomedical Sciences (2023) are shown in Table 5.2. Candidates will be expected to show knowledge and understanding of these subject areas to show equivalence with graduates from IBMS accredited BSc programmes.

Examples of Evidence that might be used to demonstrate the HCPC standards of proficiency in each module of the portfolio are shown in Table 5.3.

Table 5.1 HCPC Standards of Proficiency mapped to the Certificate of Competence by Equivalence Portfolio:

		Section 1 – Professional Conduct					Section 2 – Professional Practice				
○ = Knowledge ● = Competence	HCPC Standard reference	Module 1 – Personal Responsibility and Development	Module 2 – Equality, Diversity and Inclusion	Module 3 – Communication	Module 4 – Patient Records and Data Handling	Module 5 – Professional Relationships	Module 1 – Professional Knowledge	Module 2 – Health and Safety and Wellbeing	Module 3 – Quality	Module 4 – Performing Standard Investigations	Module 5 – Research and Development
At the point of registration, biomedical scientists must be able to:											
Practise safely within their scope of practice	1.1	●									
	1.2									●	
	1.3	●									
Practise within the legal and ethical boundaries of their profession	2.1	●									
	2.2	●									
	2.3		○								
	2.4	○									
	2.5		●								
	2.6		●								
	2.7			○							
	2.8	○									
	2.9	○									
	2.10	○									
	2.11		●								
	2.12	●									
Look after their health and wellbeing, seeking appropriate support where necessary	3.1							●			
	3.2							○			
	3.3							○			
	3.4							●			
Practise as an autonomous professional, exercising their own professional judgement	4.1	●									
	4.2									●	
	4.3									●	
	4.4									●	
	4.5	●									
	4.6										●
	4.7										●
	4.8					○					
Recognise the impact of culture, equality and diversity on practice and practise in a non-discriminatory and inclusive manner	5.1		●								
	5.2		○								
	5.3		●								
	5.4		○								
	5.5		●								
	5.6		●								
	5.7		●								
Understand the importance of and maintain confidentiality	6.1				●						
	6.2				○						
	6.3				●						
	6.4				○						
	6.5				●						

		Section 1 – Professional Conduct					Section 2 – Professional Practice				
○ = Knowledge ● = Competence At the point of registration, biomedical scientists must be able to:	HCPC Standard reference	Module 1 – Personal Responsibility and Development	Module 2 – Equality, Diversity and Inclusion	Module 3 – Communication	Module 4 – Patient Records and Data Handling	Module 5 – Professional Relationships	Module 1 – Professional Knowledge	Module 2 – Health and Safety and Wellbeing	Module 3 – Quality	Module 4 – Performing Standard Investigations	Module 5 – Research and Development
Communicate effectively	7.1			●							
	7.2			●							
	7.3			○							
	7.4		●								
	7.5			●							
	7.6			○							
	7.7			●							
	7.8			○							
	7.9			●							
Work appropriately with others	8.1					●					
	8.2					○					
	8.3					○					
	8.4					●					
	8.5					●					
	8.6					○					
	8.7					○					
	8.8		●								
	8.9					●					
	8.10					●					
	8.11					●					
	8.12					○					
	8.13					●					
Maintain records appropriately	9.1				●						
	9.2				●						
	9.3				●						
	9.4				●						
	9.5				●						
	9.6				○						
	9.7				○						
Reflect on and review practice	10.1	○									
	10.2					●					
Assure the quality of their practice	11.1								○		
	11.2								●		
	11.3								●		
	11.4								●		
	11.5								●		
	11.6								●		
	11.7								○		
	11.8								○		

		Section 1 – Professional Conduct					Section 2 – Professional Practice				
○ = Knowledge ● = Competence At the point of registration, biomedical scientists must be able to:	HCPC Standard reference	Module 1 – Personal Responsibility and Development	Module 2 – Equality, Diversity and Inclusion	Module 3 – Communication	Module 4 – Patient Records and Data Handling	Module 5 – Professional Relationships	Module 1 – Professional Knowledge	Module 2 – Health and Safety and Wellbeing	Module 3 – Quality	Module 4 – Performing Standard Investigations	Module 5 – Research and Development
Understand and apply the key concepts of the knowledge base relevant to their profession	12.1						○				
	12.2										●
	12.3					●					
	12.4					○					
	12.5									○	
	12.6						●				
	12.7						○				
	12.8									●	
	12.9									○	
	12.10							○			
Draw on appropriate knowledge and skills to inform practice	13.1										●
	13.2									●	
	13.3									●	
	13.4									●	
	13.5									●	
	13.6									●	
	13.7									●	
	13.8										○
	13.9										○
	13.10										●
	13.11										●
	13.12									●	
	13.13									●	
	13.14									●	
	13.15									●	
	13.16									●	
	13.17									●	
	13.18									●	
	13.19								●		
	13.20								●		
	13.21									●	
	13.22									○	
	13.23									○	
	13.24								●		
	13.25									●	
	13.26									●	
	13.27						●				
	13.28									●	
	13.29										○
	13.30										○
	13.31									●	

		Section 1 – Professional Conduct					Section 2 – Professional Practice				
IBMS Institute of Biomedical Science o = Knowledge • = Competence At the point of registration, biomedical scientists must be able to:	HCPC Standard reference	Module 1 – Personal Responsibility and Development	Module 2 – Equality, Diversity and Inclusion	Module 3 – Communication	Module 4 – Patient Records and Data Handling	Module 5 – Professional Relationships	Module 1 – Professional Knowledge	Module 2 – Health and Safety and Wellbeing	Module 3 – Quality	Module 4 – Performing Standard Investigations	Module 5 – Research and Development
Establish and maintain a safe practice environment	14.1							o			
	14.2							•			
	14.3							•			
	14.4							•			
	14.5							•			
	14.6							o			
Promote health and prevent ill health	15.1							o			
	15.2							o			
	15.3							•			
	15.4							o			

Table 5.2. Profession Specific Academic Subjects

Applicants will also be expected to demonstrate and evidence that they have the required knowledge and understanding of relevant academic subjects as detailed in the QAA Subject Benchmark Statement for Biomedical Science and Biomedical Sciences (2023).

A summary table of the relevant subject areas and expected knowledge of each clinical specialism is shown in Table 2.

Table 2 Biomedical Science Profession Specific Subjects and Outcomes

Profession Specific Subjects	**Candidate will be able to:**
Human anatomy and Physiology refers to the structure, function and control of the human body, its component parts and major systems.	• Demonstrate a sufficient knowledge of the structure and function of the cardiovascular, endocrine, gastrointestinal, nervous, renal, reproduction, neurological, respiratory and skeletal systems of the human body.

Profession Specific Subjects	Candidate will be able to:
	• Describe clearly the control of the functioning of the component parts of the above systems. • Have knowledge of basic human anatomy and physiology sufficient to underpin studies in the clinical laboratory specialities.
Cell biology is the study of the structure and function of cells (and the organelles they contain) and includes their life cycle, division, self-replication and eventual death.	• Have a knowledge and understanding of prokaryote and eukaryote cell structure and function (including organelles) and how cells respond to stress and injury. • Have some knowledge and understanding of cell structure and function at the molecular level, and have some appreciation of the interplay of complex molecular events that help to maintain cell homeostasis.
Biochemistry is the study of chemical processes that support life. It requires knowledge of key chemical principles which are relevant to biological systems and includes the structure and function of biological molecules and cellular metabolism and its control.	• Relate the structure and function of carbohydrates, lipids, nucleic acids and proteins to the chemical properties of their building materials. • Describe metabolic pathways as interconnected sequences of coupled enzyme-catalysed reactions and interrelate catabolism and anabolism. • Explain the synthesis of storage forms of fuel molecules and their degradation to provide usable energy through metabolic processes. Describe intracellular and extracellular strategies to regulate cellular metabolism.
Genetics is the study of the structure and function of genes (including their role in human disease) and inheritance.	• Understand the main principles of gene expression.
Molecular Biology is the branch of biology that deals with the manipulation of nucleic acids (deoxyribonucleic acid (DNA) and ribonucleic acid (RNA)) so that	• Understand how the principles of genetics underlie modern molecular biology.

Profession Specific Subjects	Candidate will be able to:
genes can be isolated, sequenced or mutated. It covers methods that allow the insertion of new genes into the genome or the deletion of genes from the genome of an organism. It allows the effects of genes and genetic factors to be investigated in health and disease.	
Immunology is the study of components of the immune system, their structure, function and mechanisms of action. It includes innate and acquired immunity.	• Have knowledge and understanding of innate and acquired immunity.
Microbiology is the study of the structure, physiology, biochemistry, classification and control of micro-organisms, including the role of normal flora.	• Have knowledge of important morphological features of the major classes of microorganisms and be able to handle culture and observe microorganisms in a safe and aseptic manner.
Cellular Pathology is the microscopic examination of normal and abnormal cells (cytopathology), and tissues (histopathology) for indicators of disease. It requires knowledge of: • the preparation of cells and tissues for microscopic examination; • microscopy and its applications; • the gross structure and ultrastructure of normal cells and tissues and the structural changes which may occur during disease; • the principles and applications of visualisation and imaging techniques.	• Describe the microscopic appearance of normal and abnormal cells and tissues. • Describe the changes cells and tissues undergo when removed from the body, the principles of fixation, methods for the preparation of cells and tissues (including cytological and frozen material), decalcification and embedding techniques. • Describe the principles and practice of microtomy, and of section mounting. • Describe the principles of simple routine staining procedures and demonstrate practical ability in their application. • Describe the principles and practice of light, fluorescent and electron microscopy and understand their role in the diagnosis of disease.
Clinical Biochemistry is the evaluation of analytes to aid the screening, diagnosis and monitoring of disease. It requires knowledge of:	• Have a knowledge and understanding of the biochemical responses that may occur in a range diseases states.

Profession Specific Subjects	Candidate will be able to:
• principles and applications of routine methods used in clinical biochemistry; • the investigation of the function and dysfunction of organs and systems and of the biochemical changes in disease; • the principles of the biochemical investigations used in the diagnosis, treatment and monitoring of disease; • therapeutic drug monitoring and investigation of substance abuse.	• Have an appreciation of how biochemical changes associated with disease are assessed in the clinical laboratory and how information about such changes is applied to the diagnosis and monitoring of disease.
Clinical Immunology is the study of immunopathological conditions and abnormal immune function. It requires knowledge of: • the principles of the function and measurement of effectors of the immune response; • the causes and consequences of abnormal immune function, neoplastic diseases and transplantation reactions together with their detection, diagnosis, treatment and monitoring; • immunological techniques used in clinical and research laboratories; • prophylaxis and immunotherapy.	• Have a knowledge and understanding of the causes and consequences of diseases associated with abnormal immune function, neoplastic diseases of the immune system and transplantation reactions. • Have an appreciation of how diseases associated with abnormal immune function, neoplastic diseases of the immune system and transplantation reactions are diagnosed, treated, and maintained.
Haematology is the study and investigation of the different elements that constitute blood in normal and diseased states. It requires knowledge of: • the structure, function and production of blood cells; • the regulation of normal haemostasis • the nature and diagnosis of anaemias; haemoglobinopathies and thalassaemias; haematological malignancy; and thrombotic diseases.	• Have a knowledge and understanding of diseases of haematopoiesis and haemostasis, and of the anaemias and leukaemias. • Explain the biochemical basis of the human ABO blood group system.

Profession Specific Subjects	Candidate will be able to:
Transfusion science is the identification of blood group antigens and antibodies, which ensures a safe supply of blood and blood components. It requires knowledge of: • the genetics, inheritance, structure and role of red cell antigens; • the preparation, storage and use of blood components; • the selection of appropriate blood components for transfusion and possible adverse effects; • immune mediated destruction of blood cells.	• Appreciate the selection, preparation, storage and safe provision of appropriate blood components. • Be aware of the possible adverse effects associated with the use of blood and blood products. • Have knowledge of the role of histocompatibility antigens in transplantation. • Demonstrate knowledge of some diagnostic options where genetic disease is suspected.
Clinical Genetics is the identification of genetic mutations and polymorphisms and their influence on disease processes. It requires knowledge of: the principles of the methods used to study human chromosomes and DNA • Epigenetics; • the identification of genes for Mendelian diseases; • testing and screening for genetic susceptibility.	• Understand the rationale behind the human genome project. • Explain how mutations in DNA can give rise to the pathological changes seen in some diseases and how these mutations may be inherited.
Medical Microbiology is the study and investigation of pathogenic microorganisms. It requires knowledge of: • the pathogenic mechanisms of a range of microorganisms; • the laboratory investigation and the epidemiology of infectious diseases; • food, water and environmental microbiology; • anti-microbial and anti-viral therapy (including drug resistance); • infection control.	• Understand and carry out quantitative and qualitative methods to enumerate, identify and determine antibiotic sensitivity of microorganisms of medical importance. • Describe selected serological and molecular methods used in the diagnosis of infectious diseases.

Table 5.3. Example Evidence Types

Section and Module	HCPC SoPs	Examples of Evidence
Section 1	**Professional Conduct**	
Module 1: Personal Responsibility and Development	SoPs 1.1, 1.3, 2.1, 2.2, 2.4, 2.8, 2.9, 2.10, 2.12, 4.1, 4.5 and 10.1	A personal statement that describes how you have been supervised, trained and mentored to undertake specified tasks in the laboratory. The statement should include reflection on the types of activities you can undertake autonomously following a period of training, what training was required and how you know that you are working to the required standard. Describe, with reference to legal and professional requirements, how your training laboratory stores and disposes of human samples. This could be a diagram, table or flowchart that includes annotation or description of the legislation and how it is applied in your laboratory. Create a summary document that explains the role of the Health and Care Professions Council and what is required to be a registered biomedical scientist. Provide a record (a written summary or answer some structured questions) of how you effectively demonstrate the behaviours detailed in the IBMS Guide to Good Professional Practice and Code of Conduct. Show how you take responsibility for self-directed learning (e.g. reflective learning sheet, or a summary of your CPD activities). The examples of CPD should include reflection (annotation or comments) on how and why the activity has informed your laboratory practice.
Module 2: Equality, Diversity and Inclusion (EDI)	SoPs 2.3, 2.5, 2.6, 2.11, 5.1, 5.2, 5.3 5.4,	A description of a situation that happened in your training laboratory and what you learned about equality (or equity), diversity and inclusion from it.

	5.5, 5.6, 5.7, 7.4 and 8.8	A summary of some EDI training you have undertaken to increase your knowledge and understanding, including a reflection on how you then applied what you learned in your practice. A description of the protected characteristics defined in the Equality Act 2010, including an explanation of how you treat all colleagues with dignity and respect, demonstrating your commitment to EDI principles. Produce a personal statement, through discussion with colleagues, t h a t describes how you demonstrate your commitment to EDI and awareness of diversity in your own professional behaviour. With reference to the HCPC Code of Conduct, Performance and Ethics, explain how mutual respect and trust of colleagues in your training laboratory helps you to maintain high standards in your practice. Create a case study to demonstrate how you tackle barriers to inclusion, model positive behaviours and recognise what reasonable adjustments may be appropriate in the workplace. Produce a diagram / flow chart / poster / leaflet for service users and / or carers that describes why it is important to know about protected characteristics and how these are respected during sample analysis.
Module 3: Communication	SoPs 2.7, 7.1, 7.2, 7.3, 7.5, 7.6, 7.7, 7.8 and 7.9	Create a flow chart / table / spider diagram or other image that includes different communication types and a description of who you employ the communication method with. This might include oral communication, written communication, non-verbal communication, the use of IT (emails or sending results) and the telephone. The evidence should include notes / annotation on how and why you choose the communication method, how you know these methods are effective.

		Provide a reflective summary of your interpersonal skills (a short video, vlog, or blog) and how you have adapted these to actively try to remove barriers to communication with different people. Record a workplace discussion (a written summary or create a diagram such as a feedback loop) with your Training Officer or another colleague that demonstrates how you ensure that information is given accurately and is understood by the recipient. Compare and contrast how information is communicated within your training laboratory (ie between scientists) and how and why this is adapted when communicated to service users, carers, and external colleagues. Give an example of how a questionnaire could be used to inform service delivery, including how you would ensure the questionnaire was accessible and correctly interpreted by a variety of service users
Module 4: Patient Records and Data Handling	SoPs 6.1, 6.2, 6.3, 6.4, 6.5, 9.1, 9.2, 9.3 9.4, 9.5, 9.6 and 9.7	Review a specific sample pathway, from receipt to result, explaining the importance of consent and confidentiality. Ask your Training Officer / mentor or a colleague to undertake and record a direct observation of practice (DOP) to review your ability to use a basic laboratory information management system (LIMS) in accordance with standard operating procedures to access and input data. Using an example from specimen reception, demonstrate why minimum patient identification criteria is important and how the protocols used for inadequately or incorrectly labelled samples allow issues to be corrected. Explain record keeping systems in your laboratory, including how these systems ensure continuity, confidentiality and appropriate access to the records, whilst complying with data protection legislation.

		Produce an infographic that demonstrates how pre-analytical errors (eg insufficient specimen being received, or the sample/specimen has not been received in the correct preservative/fixative/container) impact the validity of the sample analysis and / or result.
Module 5: Professional Relationships	SoPs 4.8, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.9, 8.10, 8.11, 8.12, 8.13, 10.2, 12.3 and 12.4	**Mandatory Piece of Evidence -** Reflective Statement describing how your engagement with service users and colleagues has positively contributed to your professional development. Explain how you have expanded your knowledge and understanding of the tests carried out by other departments and how your treatment of a sample might impact later analysis by other colleagues (eg vacutainer order of draw for blood). Describe how your interactions with clinical colleagues has informed your own practice and reflect on the importance of multi-disciplinary teams in the patient care pathway. List the areas of the laboratory where you have worked, giving a brief description of the different professional relationships you have formed, including the role(s) these staff (other than biomedical scientists) have in service delivery. Identify a specific leadership role in your laboratory and explain what skills are needed to be effective in that role. Reflect on how you already demonstrate some of these leadership skills and how you will learn from others to develop them further.
Section 2	**Professional Practice**	
Module 1: Professional Knowledge	SoPs 12.1, 12.6, 12.7 and 13.27	***Please note:*** *if you have not completed an IBMS accredited BSc programme, you will need to demonstrate relevant theoretical knowledge and understanding you developed through your degree (and any supplementary education you have completed in the clinical specialisms). You can use the IBMS approved "Fundamentals in…" series of textbooks to supplement your knowledge.* Case study based on a test that your laboratory performs, showing your understanding of normal physiology and disease progression for a specific disorder associated with this test.

		Review the laboratory investigations in which you have been trained, explaining the scientific principles by which they work and give an overview of their validation and diagnostic purpose in your clinical laboratory. Evaluate the diagnosis, prognosis and management of a specific disease and how you directly link your theoretical knowledge to practice. Discuss the aetiology of a specific condition, including detailed scientific knowledge of the tissue, cellular or molecular changes that take place as the disease progresses.
Module 2: Health and Safety and Wellbeing	SoPs 3.1, 3.2, 3.3, 3.4, 12.10, 14.1, 14.2, 14.3, 14.4, 14.5, 14.6, 15.1, 15.2, 15.3 and 15.4	Produce an example risk assessment that demonstrates how you work in accordance with health and safety legislation, including appropriate use of PPE, hazard controls and risk management strategies. Create a poster showing the common health and safety risks in your training laboratory and how these risks can be minimised. Compare and contrast the biological hazards and / or containment levels of different clinical laboratory specialisms and why these are required to manage risk, protect the safety of colleagues and maintain good laboratory practice. Review how you monitor your own mental and physical health, describing the strategies you adopt for physical and mental self-care to ensure you can practise safely and effectively. Write a self-reflection on how you maintain a high standard of professional effectiveness and a safe working environment, including how you would seek help and support when necessary.
Module 3: Quality	SoPs 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7,	Participate in a scheduled quality audit in your laboratory and review the audit outcomes to identify any impact on service and potential improvements.

	11.8, 13.19, 13.20 and 13.24	List the external quality assurance accreditations that your training laboratory holds and explain why this external recognition is important for establishing and maintaining laboratory quality and competence. Summarise the quality control/quality assessment procedures you use in your practice, including the concepts of accuracy and precision, that inform the actions that you take to correct abnormal IQC data. Evaluate your ability to calibrate equipment and record relevant quality indicators in accordance with standard laboratory procedures by reflecting on a direct observation of practice (DOP) conducted by your Training Officer / mentor. Using a questionnaire that you have created, collect data to establish the quality of practice in your training laboratory and evaluate how these data will maintain and improve quality assurance processes
Module 4: Performing Standard Investigations	SoPs 1.2, 4.2, 4.3, 4.4, 12.5, 12.8, 12.9, 13.2, 13.3, 13.4, 13.5, 13.6, 13.7, 13.12, 13.13, 13.14, 13.15, 13.16, 13.17, 13.18,13.21, 13.22, 13.23, 13.25, 13.26,	Personal statement that demonstrates your experience of performing standard investigations, including your analysis of the data produced and evaluation of the decisions and/or referrals made. Using your competency training record (with annotation / explanation) demonstrate your proficiency in using a variety of equipment and your ability to follow standard operating procedures. Explain how automation is used in your laboratory to manage workload and resources safely and effectively. Outline the different roles and responsibilities of the laboratory to authorise results in primary care and community-based laboratory services or point of care tests.

	13.28 and 13.31	Using annotated images or photographs, demonstrate your proficiency to carry out a standard investigation in your laboratory, including the equipment used, methodologies, reagent preparation, prioritisation, quality control, result interpretation and validation. Reflect on a specific experience during your laboratory training where you have encountered problems with an intended analytical method, describing how you assessed, evaluated and resolved them.
Module 5: Research and Development	SoPs 4.6, 4.7, 12.2, 13.1, 13.8, 13.9, 13.10, 13.11 13.29 and 13.30	Write a report on a workplace-based activity (or summary of final year university research project) that includes statistical analysis, data interpretation and evaluation of the study design. Demonstrate your logical and systematic approach to reasoning and problem solving by reviewing a series of experiments completed in your workplace to determine appropriate actions. Produce a scientific review (1500-2000 words) based on several relevant journal articles that demonstrates your awareness of the principles and applications of scientific enquiry, your evaluation of treatment efficacy and understanding of the research process. Create an infographic of new developments, novel technologies and changing contexts that inform evidence-based practice in the discipline(s) in which you have been trained. Evaluate a few different research methodologies relevant to your training laboratory and explain how and why service users should be involved.

6. Programme Curriculum and Learning Outcomes

This section is aligned with the QAA subject benchmark statement for Biomedical Science and Biomedical Sciences (2023) and relates to the application of knowledge and skills to professional practice and is cross-referenced to the HCPC standards of proficiency for biomedical scientists.

Graduate attributes from BSc (hons) programmes that have been completed by candidates for this route that align with biomedical science include, but are not limited to:

- an appreciation of the complexity and diversity of human processes in health and disease
- the ability to read and evaluate appropriate literature with a full and critical understanding, including the context, aims, objectives, experimental design, methodology, data interpretation and application of the study
- the capacity to give a clear, current and accurate account of their subject area, the ability to critically discuss and debate both with specialists and non-specialists, using appropriate scientific language
- critical and analytical skills, including a recognition that statements and hypotheses should be tested, and that evidence is subject to assessment and critical evaluation
- the ability to successfully apply a variety of methods of study in investigating, recording and analysing material
- the ability to think independently, work autonomously and solve problems
- an understanding of how to identify, protect and exploit intellectual property (IP) as part of the scientific innovation process
- an appreciation of the global reach of the subject area, the impact on human life and the environment and the ethical considerations implicit in their application.

The graduate attributes for candidates for the Certificate of Competence by Equivalence are shown in Table 6.1 (reproduced from the QAA Subject Benchmark Statement for Biomedical Science and Biomedical Sciences (2023)).

Table 6.1: On graduating with an honour's degree in Biomedical Science and/or Biomedical Sciences relevant subjects, graduates will have the following core knowledge, understanding, experience and skills:

Benchmark outcome	Threshold standard	Excellent standard
Describe and discuss the key concepts and phenomena relevant to the course confidently, accurately and in detail, using appropriate terminology, and be aware of the full breadth of Biomedical Science and/or Biomedical Sciences, from molecular to cellular, and from health to disease.	Recall basic knowledge of key concepts in Biomedical Science and/or Biomedical Sciences and phenomena relevant to the course and explain these using appropriate terminology.	Apply a comprehensive knowledge of concepts in Biomedical Science and/or Biomedical Sciences and phenomena to discuss and explain essential aspects of the course and show evidence of enquiry beyond this.
Apply knowledge and understanding of human biological systems and methodologies to design experiments and to solve theoretical and practical problems, with awareness of appropriate controls, possible bias, ethics and sustainability.	Demonstrate an understanding of basic experimental design and application of methods to solve routine problems relevant to the course, with some awareness of appropriate controls, possible bias, ethics and sustainability.	Devise and evaluate solutions to solve both routine and unfamiliar problems using a range of methods, including awareness of appropriate controls, possible bias, ethics and sustainability.
Describe, document and enact safe working practices in terms of managing biological, chemical, laboratory or sample-based risk, through knowledge-based risk assessments and practical activities.	Produce and follow risk assessments for completing practical work in a safe and reliable manner with support.	Independently produce and apply risk assessments for completing practical work in a safe and reliable manner.

Benchmark outcome	Threshold standard	Excellent standard
Select and carry out appropriate quantitative and qualitative practical techniques to solve problems relevant to the course, including consideration of the theoretical basis and limitations of various techniques.	Suggest and demonstrate competence in a broad range of appropriate qualitative and quantitative practical techniques relevant to the course.	Design, optimise and demonstrate competence in a broad range of appropriate qualitative and quantitative practical techniques relevant to the course, with a high degree of autonomy and efficiency.
Use appropriate databases, computational techniques and tools to aid further understanding and insight of Biomedical Science and/or Biomedical Sciences processes.	Apply computational techniques and tools to investigate familiar Biomedical Science and/or Biomedical Sciences concepts covered in course content and report outcomes using appropriate terminology.	Select and apply appropriate computational techniques and tools to investigate complex Biomedical Science and/or Biomedical Sciences concepts and evaluate and report outcomes using appropriate terminology.
Engage with literature from the Biomedical Science and/or Biomedical Sciences to develop insight into the subject.	Assess the evidence base for scientific claims, by accessing primary literature and commenting on the adequacy of the methods, data and interpretation therein.	Identify and select appropriate sources of biological information, including primary literature, and appraise and evaluate the adequacy of methods, data and their interpretation with a high degree of independence.
Complete independent open-ended investigative work through a project/research-based assignment relevant to the course.	Demonstrate planning, execution and presentation of a piece of independently produced work which includes analysis or evaluation of data within a supported framework, demonstrating some evidence of time management, problem solving and independence.	Demonstrate highly independent and competent planning, execution and presentation of a piece of independently produced work which includes the analysis and critical evaluation of data, demonstrating high levels of time management, problem solving and independence.

Benchmark outcome	Threshold standard	Excellent standard
Appreciate the contribution of Biomedical Science and/or Biomedical Sciences to the innovations that characterise the modern world, and the potential of Biomedical Science and/or Biomedical Sciences graduates to develop solutions to current and future challenges.	Identify and discuss application of Biomedical Science and/or Biomedical Sciences in solving current and future challenges in the world and demonstrate some understanding of the role of Biomedical Scientists and research scientists in this.	Explain, suggest and critique ways in which Biomedical Science and/or Biomedical Sciences and Biomedical Scientists can contribute to solving current and future world challenges.
Recognise the relationships and interfaces between Biomedical Science and/or Biomedical Sciences and other subjects, enabling efficient interactions in a multidisciplinary environment.	Identify and explain relationships between Biomedical Science and/or Biomedical Sciences and other subjects relevant to the course content.	Explain and evaluate the contribution of Biomedical Science and/or Biomedical Sciences to solving interdisciplinary challenges and the role of interdisciplinary thinking in solving scientific problems.
Deploy mathematical and statistical concepts, processes and tools, such as the manipulation of equations and graphical and statistical analysis, to solve problems or evaluate data.	Use mathematical and statistical concepts, processes and tools to solve familiar problems or evaluate data.	Select, use and evaluate appropriate mathematical and statistical concepts, processes and tools to solve problems or evaluate data.
Collect qualitative and quantitative data from investigations relevant to the course and analyse and interpret this data to allow testing of hypotheses, contextualising of findings, presentation of findings, and suggestions for further lines of investigation.	Demonstrate accurate data collection, including selection of appropriate methods for analysis, interpretation of findings to test hypotheses, consideration of further lines of investigation and manipulation of data for effective presentation.	Demonstrate independent and accurate data collection, including selection of appropriate methods for analysis, interpretation of findings to test hypotheses, consideration of further lines of investigation and manipulation of data for effective presentation, with a thorough

		understanding of the context of the investigation within the field.
Benchmark outcome	**Threshold standard**	**Excellent standard**
Collaborate and work successfully in a group environment, contributing positively and flexibly to team outputs.	Effectively participate in group and teamwork, demonstrating clear contributions to the work.	Identify and apply effective strategies for working in a group environment and provide clear and valuable contributions to team outputs, demonstrating good teamwork and/or leadership skills.
Communicate effectively, selecting appropriate content, media and methods for the audience, purpose and subject.	Communicate information, ideas, problems and solutions verbally and/or non-verbally, with clear expression and style.	Communicate information, ideas, problems and solutions to an accomplished level verbally and non-verbally, in an accurate, fluent and sophisticated style, at a level consistently appropriate for the audience.
Apply ethical awareness to working in Biomedical Science and/or Biomedical Sciences, appreciate the historical context of the subject and the societal impacts of advances in the Biomedical Science and/or Biomedical Sciences.	Describe some of the ethical issues and societal impacts of advances in Biomedical Science and/or Biomedical Sciences, with some acknowledgement of the historical context of the subject.	Understand and evaluate ethical issues and the societal impact of advances in Biomedical Science and/or Biomedical Sciences, with some understanding of the historical context of the subject.

Benchmark outcome	Threshold standard	Excellent standard
Stay up to date with advances in Biomedical Science and/or Biomedical Sciences and appreciate the fluid nature of knowledge that evolves as new findings emerge.	Awareness of how new findings may change current understandings of various topics in Biomedical Science and/or Biomedical Sciences, that many aspects of the subject are not fully understood and demonstrate some ability to stay up to date with new findings.	Clear appreciation of the fluid nature of knowledge in Biomedical Science and/or Biomedical Sciences, including an ability to incorporate new findings into previous understanding of various topics.
Act professionally, with due regard for legal, ethical and societal responsibilities, modelling good practice that promotes positive perceptions of Biomedical Science and/or Biomedical Sciences and Biomedical Scientists.		

7. The Certificate of Competence by Equivalence (Biomedical Scientist) Route Assessment Process

The equivalence route assessment process is based on individual candidate's evidence of their academic qualifications, professional experience and completed training for detailed assessment by Institute trained assessors against the HCPC standards of proficiency for biomedical scientists.

7.1 Following confirmation that the laboratory has appropriate IBMS pre-registration laboratory training approval, candidates will be issued with the IBMS Certificate of Competence by Equivalence (Biomedical Scientist) digital portfolio on the Onefile platform. The candidate will be given 12 months to submit a completed portfolio containing evidence mapped to the HCPC standards of proficiency for biomedical scientists. Each piece of evidence must clearly state which HCPC standards of proficiency it demonstrates. The portfolio of evidence must include the following:

- Evidence of academic qualifications and content where relevant to the standards of proficiency
- Evidence of experiential learning through laboratory training, current practice and CPD
- Evidence of professional competence (direct observation of practice, case studies or presentations for example)
- Evidence of structured training and competence equivalent to the threshold level required for HCPC registration as a biomedical scientist
- All evidence must be organised within the corresponding modules of the portfolio (eg Section 1 Module 1, Section 1 Module 2 etc) as set out on the Onefile platform.

7.2 Applicants will be required to go through a multi-stage process to be admitted to the equivalence route and then formally assessed. These are summarised below:

- Initial application and applicant screening for admittance to the programme
- Applicants compile appropriate evidence against the IBMS Registration Equivalence Portfolio modules and sections and clearly state the HCPC SOP(s) that the evidence demonstrates
- The equivalence portfolio evidence is assessed by a panel of reviewers comprising of a lay person, academic and professional (biomedical scientist)

7.3 Assessment of the evidence provided within the IBMS Certificate of Competence by Equivalence portfolio will be carried out by the panel of reviewers, comprising of a lay person, academic and professional (biomedical scientist). They will determine whether the evidence provided is equivalent to the standard required to meet the threshold of the

HCPC standards for biomedical scientists. A summary of the portfolio assessment outcome will be submitted to the IBMS Education Department.

7.4 Areas to explore further in the final assessment will be discussed and agreed by the whole review panel. The final assessment of the candidate will be by viva voce (an oral examination) conducted by the professional reviewer.

7.5 The candidate will be asked to attend a viva voce with the professional reviewer to discuss their education and training and how they effectively demonstrate the HCPC standards of proficiency for biomedical scientists. Each viva assessment will normally last between 30 and 60 minutes, usually takes place online and is used to confirm suitability for the award.

7.6 Assessors can make one of the following summary recommendations:

Outcome 1: Applicant has met all the requirements of the Certificate of Competence by Equivalence portfolio and should be awarded the Certificate of Competence by Equivalence (Biomedical Scientist).

Outcome 2: Applicant has partially met the requirements of the Certificate of Competence by Equivalence portfolio and is required to submit further evidence to address specific standards of proficiency.

Outcome 3: Applicant has failed to meet the requirements of the Certificate of Competence by Equivalence portfolio and will need to resubmit for full assessment following further training and/or compilation of additional evidence.

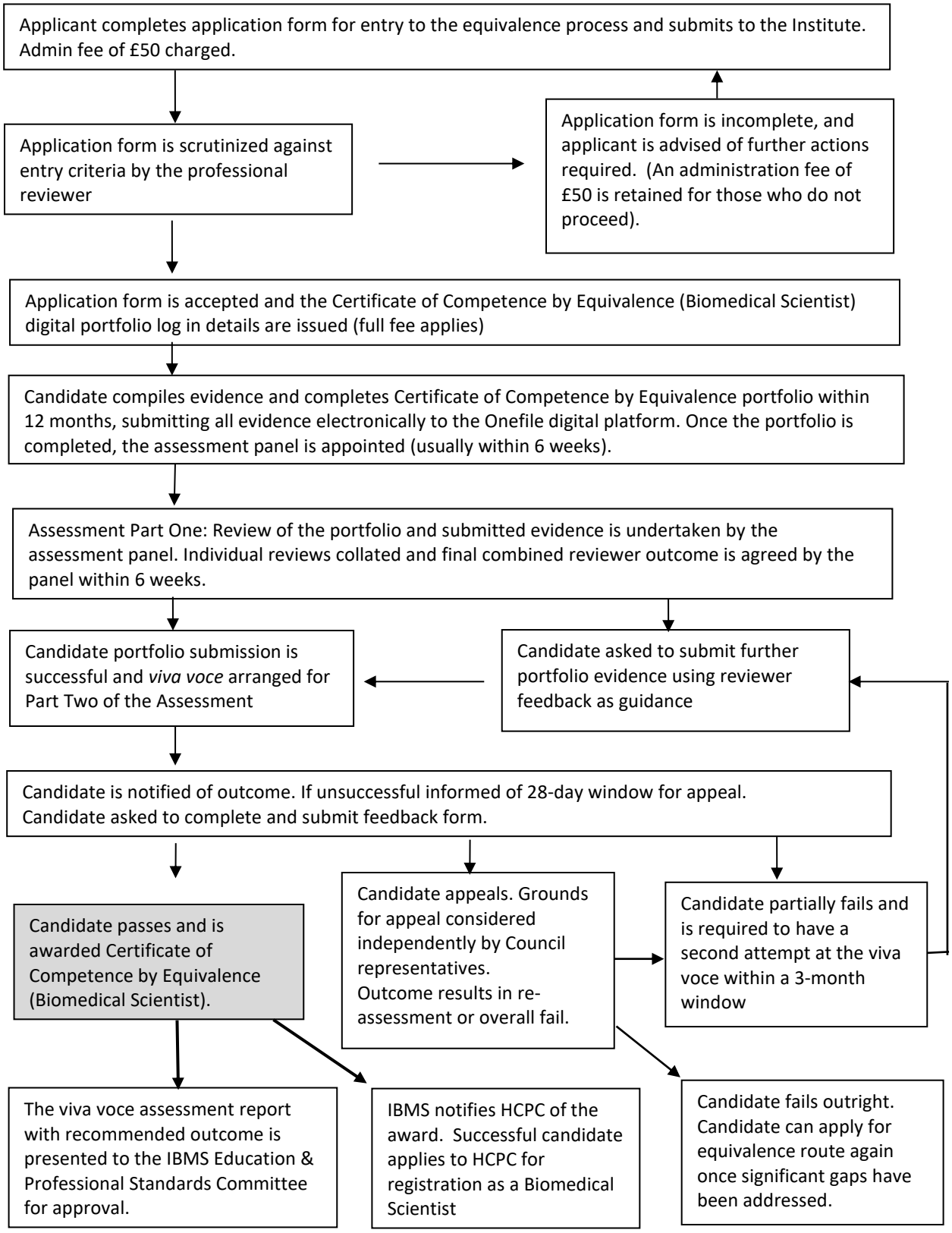
Where additional evidence is required, recommendations will be made as to how this can be achieved (additional training in their own laboratory or an IBMS approved laboratory, taught courses, additional CPD etc). A maximum time frame for resubmission will be set, dependant on the nature of the further evidence that is required.

7.7 Candidates will be notified of the outcome of their portfolio and viva assessments and invited to complete a feedback form on their experience of the equivalence route.

7.8 The report on the final outcome of the equivalence route viva voce will be ratified by the IBMS Education and Professional Standards Committee.

7.9 Candidates will have the opportunity to appeal on procedural matters related to the assessment process. Appeals against the judgement of the assessors or the Education and Professional Standards Committee will not be accepted.

The application and assessment processes are summarised in the flowchart on the next page:


Applicant completes application form for entry to the equivalence process and submits to the Institute. Admin fee of £50 charged.
Application form is scrutinized against entry criteria by the professional reviewer
Application form is incomplete, and applicant is advised of further actions required. (An administration fee of £50 is retained for those who do not proceed).
Application form is accepted and the Certificate of Competence by Equivalence (Biomedical Scientist) digital portfolio log in details are issued (full fee applies)
Candidate compiles evidence and completes Certificate of Competence by Equivalence portfolio within 12 months, submitting all evidence electronically to the Onefile digital platform. Once the portfolio is completed, the assessment panel is appointed (usually within 6 weeks).
Assessment Part One: Review of the portfolio and submitted evidence is undertaken by the assessment panel. Individual reviews collated and final combined reviewer outcome is agreed by the panel within 6 weeks.
Candidate portfolio submission is successful and viva voce arranged for Part Two of the Assessment
Candidate asked to submit further portfolio evidence using reviewer feedback as guidance
Candidate is notified of outcome. If unsuccessful informed of 28-day window for appeal. Candidate asked to complete and submit feedback form.
Candidate passes and is awarded Certificate of Competence by Equivalence (Biomedical Scientist).
Candidate appeals. Grounds for appeal considered independently by Council representatives. Outcome results in re-assessment or overall fail.
Candidate partially fails and is required to have a second attempt at the viva voce within a 3-month window
The viva voce assessment report with recommended outcome is presented to the IBMS Education & Professional Standards Committee for approval.
IBMS notifies HCPC of the award. Successful candidate applies to HCPC for registration as a Biomedical Scientist
Candidate fails outright. Candidate can apply for equivalence route again once significant gaps have been addressed.

8. Assessment Information

8.1. The assessment for this route is based on the principle that eligibility to apply for HCPC registration is achieved through successful completion of the IBMS Certificate of Competence by Equivalence portfolio, which demonstrates that an individual meets the HCPC standards of proficiency for biomedical scientists.

8.2. Individuals are expected to achieve threshold standards in both academic learning and professional skills and demonstrate how these are applied in professional practice.

8.3. The Certificate of Competence by Equivalence (Biomedical Scientist) route is designed to ensure that relevant and equivalent achievements are recognised and avoid the requirement to repeat levels of education and/or training that have already been exceeded.

8.4. Progression opportunities via 'equivalence' are available to all practitioners working at or above the threshold level of registration for biomedical scientists and for whom the standard routes to HCPC registration are not appropriate.

8.5. All evidence presented for recognition of equivalence must be in keeping with the IBMS Code of Conduct and policy for Good Professional Practice.

8.6. Decisions on equivalence are informed by the academic curriculum of IBMS accredited degrees based on the subject elements of the QAA subject benchmark statement for biomedical science and biomedical sciences (2023), and the HCPC standards of proficiency for biomedical scientists (2022). The requirements for demonstrating these are set out in the guidance documents for completion of the IBMS equivalence portfolio.

8.7. The range of evidence required to establish equivalence should enable assessment of the applicant's scientific knowledge base (including understanding and application in the workplace), practical skills, communication skills and professionalism in their practice.

8.8. The professional judgements about equivalence made in the portfolio assessment stage are made by a lay person, academic and an HCPC registered biomedical scientist.

8.9. Determination of equivalence and award of the Certificate of Competence by Equivalence (Biomedical Scientist) will not result in the award of an academic

qualification, automatic registration with the HCPC or automatic changes to employment bands.

9. Assessment Regulations and Award

9.1. The IBMS ensures, through its formal assessment process described in this document, that only individuals meeting the requirements of all HCPC standards of proficiency for biomedical scientists are eligible to receive the Certificate of Competence by Equivalence (Biomedical Scientist).

9.2. If a candidate successfully satisfies all equivalence assessment criteria, the IBMS will award a Certificate of Competence by Equivalence (Biomedical Scientist). This award confers eligibility for the recipient to apply to the HCPC for registration as a biomedical scientist, having demonstrated they meet all standards of proficiency.

9.3. All HCPC standards of proficiency for biomedical scientists must be met through the portfolio of evidence submitted. There will be no compensation or condonement of competencies related to these.

9.4. There are no other awards offered as outcomes of the assessment process.

9.5. Appeals can be made using the IBMS appeal process. They can only be made on procedural grounds. The outcome of the appeal is final.

9.6. Quarterly reports will be made to the IBMS Education and Professional Standards Committee (E&PSC) and an annual quality review will be undertaken by the External Examiner. These will be based on information collected from the assessments (e.g. outcomes, common areas of failure, feedback from assessors and applicants). Recommendations from E&PSC meetings will be used to monitor and review guidance information and processes as required. The annual review will be used to improve and update processes to ensure a robust system is maintained and is consistent with current practice and standards.

9.7. External colleagues will be appointed from experienced Registration Training Portfolio verifiers who have a proven track record with the Certificate of Competence assessment process. They will be required to undertake initial training for the equivalence process and participate in annual reviews as part of their refresher training and CPD, along with the academic and lay person reviewers for this equivalence route.

10. Programme Management

Responsibility for the quality of programmes provided by the IBMS ultimately lies with the Executive Head of Education. The programmes are carefully and regularly monitored, as summarised below:

- The Executive Head of Education, Education Manager and the education team undertake the day-to-day responsibility for programme provision.
- Education and Professional Standards Committee considers the viva voce outcome report as the final assessment for the equivalence route.
- The Executive Head of Education in conjunction with Education and Professional Standards Committee, considers and resolves issues identified that affect the quality of the programme.
- External Examiners' Reports are produced annually on all routes to registration and form an important external measure of the quality of programme provision.
- HCPC Performance Review – this report monitors overall programme performance in each academic session and contains action plans to address any major issues.

10.1. Mechanisms for review and evaluation of learning, teaching, assessment and portfolio contents.

The guidance for IBMS degree accreditations is updated annually and the equivalence route is mapped to the latest QAA Subject Benchmark Statement for Biomedical Science and Biomedical Sciences (2023) and HCPC standards of proficiency for biomedical scientists (2022).

Specific processes related to quality assurance and integration of the service-user in this equivalence route are:

- Applicants are required to produce specified evidence for the Registration Equivalence Portfolio (Biomedical Scientist) (Module 5 Professional Relationships) that requires them to reflect on the contribution of service users to their development.
- The applicant assessment process involves a lay representative in the assessment panel.
- Assessment Panel reports from the equivalence portfolio review and the viva voce assessments.
- An External Examiner who is HCPC registered as a Biomedical Scientist who produces an annual report based on analysis and evaluation of the above reports and monitoring processes.

10.2 The Education and Professional Standards Committee has responsibility for monitoring and evaluating quality and standards.

10.3 Processes for gaining candidate feedback on the quality of the teaching and their learning experience:

- Review Panel feedback on the portfolio evidence
- Candidate feedback report

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

- Council and Advisory Panel meetings
- University/employer Training for Trainers events
- IBMS training conferences and the biennial Congress
- CPD activities
- Local presentations
- Certificate of Competence by Equivalence (Biomedical Scientist) assessor training events

About this document

Title:	Certificate of Competence by Equivalence (Biomedical Scientist): Programme Handbook
Produced by:	Education Department
Version:	Version 5.0
Active date:	November 2023
Review date:	September 2024
Contact:	Education Department T: +44 (0)20 7713 0214 E: equivalence@ibms.org

About IBMS Publications

The Institute publishes a wide range of professional and scientific documentation and guidance.

Further information and downloadable publications are available on the IBMS website (www.ibms.org/publications).