Institute of Biomedical Science

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# IBMS CERTIFICATE OF COMPETENCE BY EQUIVALENCE (BIOMEDICAL SCIENTIST)

## Module Descriptors

August 2025

Section: 1 – Module: 1

# Personal Responsibility and Development

## Module Learning Outcomes

By successfully completing this module, the candidate will be able to:

- Demonstrate transferable skills required for effective practice, including high standards of personal and professional conduct, personal responsibility, justifying their decisions and actions, and exercising appropriate personal initiative.
- Understand what is required of them by the Health and Care Professions Council, including their ability to apply legislation, policies and guidance relevant to biomedical scientists within their scope of practice.
- Justify the importance of continuing professional development throughout their career; be able to identify the limits of their practice, and know when to seek advice.

Section: 1 – Module: 1

# Personal Responsibility and Development

## Candidate's Choice Evidence

Below are some suggested examples of evidence you might like to consider using in your portfolio but they are not exhaustive. The evidence provided for each module must map to the HCPC standards of proficiency for this module as summarised below:

**Suggested examples:**

- Produce a personal statement that demonstrates your understanding of the limits of your practice and how you act accordingly.
- 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.

**SoP Mapping:**

1.1 identify the limits of their practice and when to seek advice or refer to another professional or service

1.3 keep their skills and knowledge up to date and understand the importance of continuing professional development throughout their career

2.1 maintain high standards of personal and professional conduct

2.2 promote and protect the service user's interests at all times

2.4 understand what is required of them by the Health and Care Professions Council, including but not limited to the Standards of conduct, performance and ethics

2.8 understand the importance of capacity in the context of delivering care and treatment

2.9 understand the scope of a professional duty of care, and exercise that duty

2.10 understand and apply legislation, policies and guidance relevant to their profession and scope of practice

2.12 demonstrate awareness of the British, European and International Standards that govern and affect pathology laboratory practice

4.1 recognise that they are personally responsible for and must be able to justify their decisions and actions

4.5 exercise personal initiative

10.1 understand the value of reflective practice and the need to record the outcome of such reflection to support continuous improvement

Section: 1 – Module: 2

# Equality, Diversity and Inclusion

## Module Learning Outcomes

By successfully completing this module, the candidate will be able to:

- Apply equality legislation to their practice and understand how their own values, beliefs and personal biases (which may be unconscious) could impact on their practice.
- Acknowledge the rights, dignity and values of others and actively challenge barriers to inclusion in their practice.
- Take personal action to ensure colleagues, service users and carers are treated appropriately with respect and dignity.

## Section: 1 – Module: 2

# Candidate's Choice Evidence

Below are some suggested examples of evidence you might like to consider using in your portfolio but they are not exhaustive. The evidence provided for each module must map to the HCPC standards of proficiency for this module as summarised below:

**Suggested examples:**

- Using specific examples, demonstrate how you apply the principles of equality, diversity and inclusion in your practice.
- Produce a personal statement, through discussion with colleagues, that 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.

**SoP Mapping:**

2.3 understand the importance of safeguarding by actively looking for signs of abuse, demonstrating understanding of relevant safeguarding processes, and engaging in these processes where necessary

2.5 respect and uphold the rights, dignity, values, and autonomy of service users, including their role in the assessment, diagnostic, treatment and / or therapeutic process

2.6 recognise that relationships with service users, carers and others should be based on mutual respect and trust, maintaining high standards of care in all circumstances

2.11 recognise the power imbalance which comes with being a health care professional, and ensure they do not abuse this for personal gain

5.1 respond appropriately to the needs of all different groups and individuals in practice, recognising that this can be affected by difference of any kind including, but not limited to, protected characteristics, intersectional experiences and cultural differences

5.2 understand equality legislation and apply it to their practice (The Equality Act 2010 defines the protected characteristics as age, disability, gender reassignment, race, religion or belief, sex, sexual orientation, marriage and civil partnership and pregnancy and maternity. Equivalent equality legislation in Northern Ireland protects age, disability, gender, race, religion or belief and sexual orientation).

5.3 recognise the potential impact of their own values, beliefs and personal biases (which may be unconscious) on practice and take personal action to ensure all service users and carers are treated appropriately with respect and dignity

5.4 understand the duty to make reasonable adjustments in practice and be able to make and support reasonable adjustments in theirs and others' practice

5.5 recognise the characteristics and consequences of barriers to inclusion, including for socially isolated groups

5.6 actively challenge these barriers, supporting the implementation of change wherever possible

5.7 recognise that regard to equality, diversity and inclusion needs to be embedded in the application of all HCPC standards, across all areas of practice

7.4 work with service users and / or their carers to facilitate the service user's preferred role in decision-making, and provide service users and carers with the information they may need where appropriate

8.8 identify their own leadership qualities, behaviours and approaches, taking into account the importance of equality, diversity and inclusion

Section: 1 – Module: 3

# Communication

## Module Learning Outcomes

By successfully completing this module, the candidate will be able to:

- Communicate the outcomes of clinical laboratory investigations accurately and reliably to service users, carers, colleagues and others.
- Use information, communication and digital technologies competently in their practice.
- Demonstrate an ability to adapt their communication methods to ensure clear communication with a variety of audiences.

## Section: 1 – Module: 3

# Candidate's Choice Evidence

Below are some suggested examples of evidence you might like to consider using in your portfolio but they are not exhaustive. The evidence provided for each module must map to the HCPC standards of proficiency for this module as summarised below:

**Suggested examples:**

- Explain the different methods you use to communicate effectively within your department and with service users
- 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.

**SoP Mapping:**

2.7 understand the importance of and obtain valid consent, which is voluntary and informed, has due regard to capacity, is proportionate to the circumstances and is appropriately documented

7.1 use effective and appropriate verbal and non-verbal skills to communicate with service users, carers, colleagues and others

7.2 communicate in English to the required standard for their profession (equivalent to level 7 of the International English Language Testing System, with no element below 6.5)

7.3 understand the characteristics and consequences of verbal and non-verbal communication and recognise how these can be affected by difference of any kind including, but not limited to, protected characteristics, intersectional experiences and cultural differences

7.5 modify their own means of communication to address the individual communication needs and preferences of service users and carers, and remove any barriers to communication where possible

7.6 understand the need to support the communication needs of service users and carers, such as through the use of an appropriate interpreter

7.7 use information, communication and digital technologies appropriate to their practice

7.8 understand the need to provide service users or people acting on their behalf with the information necessary in accessible formats to enable them to make informed decisions

7.9 communicate the outcomes of biomedical procedures

Section: 1 – Module: 4

# Patient Records and Data Handling

## Module Learning Outcomes

By successfully completing this module, the candidate will be able to:

- Maintain confidentiality and comply with data governance requirements
- Manage and keep clear, accurate and detailed records in accordance with applicable legislation, protocols and guidelines.
- Adhere to specimen identification protocols, use systems for the accurate and correct identification of laboratory specimens and recognise the importance of backup storage of electronic data.

## Section: 1 – Module: 4

# Candidate's Choice Evidence

Below are some suggested examples of evidence you might like to consider using in your portfolio but they are not exhaustive. The evidence provided for each module must map to the HCPC standards of proficiency for this module as summarised below:

**Suggested examples:**

- Review a specific sample pathway, from receipt to result, explaining the importance of consent and confidentiality
- Ask your Training Officer 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.

**SoP Mapping:**

6.1 adhere to the professional duty of confidentiality and understand when disclosure may be required

6.2 understand the principles of information and data governance and be aware of the safe and effective use of health, social care and other relevant information

6.3 recognise and respond in a timely manner to situations where it is necessary to share information to safeguard service users, carers and / or the wider public

6.4 understand the need to ensure confidentiality is maintained in all situations in which service users rely on additional communication support (such as interpreters or translators)

6.5 recognise that the concepts of confidentiality and informed consent extend to all mediums, including illustrative clinical records such as photography, video and audio recordings and digital platforms

9.1 keep full, clear and accurate records in accordance with applicable legislation, protocols and guidelines

9.2 manage records and all other information in accordance with applicable legislation, protocols and guidelines

9.3 use digital record keeping tools, where required

9.4 recognise, communicate and understand the risks and possible serious consequences of errors and omissions in both requests for, and results of, laboratory investigations

9.5 use systems for the accurate and correct identification of service users and laboratory specimens

9.6 understand the need to adhere to protocols of specimen identification, including bar coding and electronic tag systems

9.7 understand the importance of backup storage of electronic data

Section: 1 – Module: 5

# Professional Relationships

## Module Learning Outcomes

By successfully completing this module, the candidate will be able to:

- Build and sustain professional relationships that enable autonomous and collaborative working, using a range of personal transferable skills.
- Actively participate in training that supports high standards of practice, professional conduct and positive interpersonal relationships.
- Recognise the qualities, behaviours and benefits of effective leadership and demonstrate leadership behaviours appropriate to their practice.

## Section: 1 – Module: 5

# Candidate's Choice Evidence

Below are some suggested examples of evidence you might like to consider using in your portfolio but they are not exhaustive. The evidence provided for each module must map to the HCPC standards of proficiency for this module as summarised below:

**Suggested examples:**

- Produce a 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

**SoP Mapping:**

4.8 understand the need for active participation in training, supervision and mentoring in supporting high standards of practice, and personal and professional conduct, and the importance of demonstrating this in practice

8.1 work in partnership with service users, carers, colleagues and others

8.2 recognise the principles and practices of other health and care professionals and systems and how they interact with their profession

8.3 understand the need to build and sustain professional relationships as both an autonomous practitioner and collaboratively as a member of a team

8.4 contribute effectively to work undertaken as part of a multi-disciplinary team

8.5 identify anxiety and stress in service users, carers and colleagues, adapting their practice and providing support where appropriate

8.6 understand the qualities, behaviours and benefits of leadership

8.7 recognise that leadership is a skill all professionals can demonstrate

8.9 demonstrate leadership behaviours appropriate to their practice

8.10 act as a role model for others

8.11 promote and engage in the learning of others

8.12 understand the need to engage service users and carers in planning and evaluating diagnostics and assessment outcomes to meet their needs and goals

8.13 demonstrate awareness of the impact of pathology services on the service user care pathway

10.2 recognise the value of multi-disciplinary reviews, case conferences and other methods of review

12.3 recognise the role(s) of other professions in health and social care and understand how they may relate to the role of biomedical scientist

12.4 understand the structure and function of health and social care systems and services in the UK

Section: 2 – Module: 1

# Professional Knowledge

## Module Learning Outcomes

By successfully completing this module, the candidate will be able to:

- Understand in detail, the role of clinical specialisms in the diagnosis, treatment and management of disease: cellular science, blood science, infection science, molecular and genetic science and reproductive science.
- Apply their knowledge of the scientific principles underpinning clinical laboratory investigations used to investigate human diseases, disorders and dysfunction.
- Clearly articulate the causes of named disorders, including the molecular, cellular and / or genetic changes associated with disease progression.

Section: 2 – Module: 1

# Professional Knowledge

## Candidate's Choice Evidence

Below are some suggested examples of evidence you might like to consider using in your portfolio but they are not exhaustive. The evidence provided for each module must map to the HCPC standards of proficiency for this module as summarised below:

**Suggested examples:**

- Prepare a 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.

**SoP Mapping:**

12.1 understand the structure and function of the human body, together with knowledge of physical and mental health, disease, disorder and dysfunction relevant to their profession.

12.6 be able to demonstrate knowledge of the underpinning scientific principles of investigations provided by clinical laboratory services.

12.7 understand the role of the following specialisms in the diagnosis, treatment and management of disease: cellular science, blood science, infection science, molecular and genetic science and reproductive science.

13.27 investigate and monitor disease processes and normal states

Section: 2 – Module: 2

# Health and Safety and Wellbeing

## Module Learning Outcomes

By successfully completing this module, the candidate will be able to:

- Identify hazards and mitigate risks by complying with local operational procedures, policies and relevant health and safety legislation.
- Establish safe environments for practice and apply principles of good laboratory practice to maintain the safety of themself and others.
- Recognise the potential impact of their own mental and physical health on their ability to practise safely and effectively, including how to seek help and support when necessary.

Section: 2 – Module: 2

## Candidate's Choice Evidence

Below are some suggested examples of evidence you might like to consider using in your portfolio but they are not exhaustive. The evidence provided for each module must map to the HCPC standards of proficiency for this module as summarised below:

**Suggested examples:**

- 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.

**SoP Mapping:**

3.1 identify anxiety and stress in themselves and recognise the potential impact on their practice

3.2 understand the importance of their own mental and physical health and wellbeing strategies in maintaining fitness to practise

3.3 understand how to take appropriate action if their health may affect their ability to practise safely and effectively, including seeking help and support when necessary

3.4 develop and adopt clear strategies for physical and mental self-care and self-awareness, to maintain a high standard of professional effectiveness and a safe working environment

12.10 understand the biological hazards groups and associated containment levels

14.1 understand the need to maintain the safety of themself and others, including service users, carers and colleagues

14.2 demonstrate awareness of relevant health and safety legislation and comply with all local operational procedures and policies.

14.3 work safely, including being able to select appropriate hazard control and risk management, reduction or elimination techniques in a safe manner and in accordance with health and safety legislation.

14.4 select appropriate personal protective equipment and use it correctly.

14.5 establish safe environments for practice, which appropriately manages risk

14.6 understand the application of principles of good laboratory practice

15.1 understand the role of their profession in health promotion, health education and preventing ill health

15.2 understand how social, economic and environmental factors (wider determinants of health) can influence a person's health and well-being

15.3 empower and enable individuals (including service users and colleagues) to play a part in managing their own health

15.4 engage in occupational health, including being aware of immunisation requirements

Section: 2 – Module: 3

# Quality

## Module Learning Outcomes

By successfully completing this module, the candidate will be able to:

- Recognise the value of quality control, quality assurance and clinical governance to ensure continual improvement.
- Identify and respond appropriately to abnormal outcomes from quality indicators.
- Accurately and precisely perform calibration and quality control checks appropriate to their role.

## Candidate's Choice Evidence

Below are some suggested examples of evidence you might like to consider using in your portfolio but they are not exhaustive. The evidence provided for each module must map to the HCPC standards of proficiency for this module as summarised below:

# Quality

**Suggested examples:**

- Participate in a scheduled quality audit in your laboratory and review the audit outcomes to identify any impact on service and potential improvements.
- 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.
- 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.

**SoP Mapping:**

11.1 engage in evidence-based practice

11.2 gather and use feedback and information, including qualitative and quantitative data, to evaluate the responses of service users to their care

11.3 monitor and systematically evaluate the quality of practice, and maintain an effective quality management and quality assurance process working towards continual improvement

11.4 participate in quality management, including quality control, quality assurance, clinical governance and the use of appropriate outcome measures

11.5 evaluate care plans or intervention plans using recognised and appropriate outcome measures, in conjunction with the service user where possible, and revise the plans as necessary

11.6 recognise the value of gathering and using data for quality assurance and improvement programmes

11.7 select and apply quality and process control measures

11.8 identify and respond appropriately to abnormal outcomes from quality indicators

13.19 work with accuracy and precision

13.20 perform calibration and quality control checks

13.24 formulate specific and appropriate management plans including the setting of timescales

Section: 2 – Module: 4

# Performing Standard Investigations

## Module Learning Outcomes

By successfully completing this module, the candidate will be able to:

- Apply their knowledge and understanding of standard laboratory investigations to select, review and appraise appropriate techniques.
- Prepare, process, analyse and interpret clinical laboratory data and present the data in a suitable format.
- Conform with standard operating procedures when working with specific laboratory equipment and demonstrate relevant practical skills.

## Candidate's Choice Evidence

Below are some suggested examples of evidence you might like to consider using in your portfolio but they are not exhaustive. The evidence provided for each module must map to the HCPC standards of proficiency for this module as summarised below:

**Suggested examples:**

- Produce a 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.
- 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.

**SoP Mapping:**

1.2 recognise the need to manage their own workload and resources safely and effectively, including managing the emotional burden that comes with working in a pressured environment.

4.2 use their skills, knowledge and experience, and the information available to them, to make informed decisions and / or take action where necessary

4.3 make reasoned decisions to initiate, continue, modify or cease treatment or the use of techniques or procedures, and record the decisions and reasoning appropriately

4.4 make and receive appropriate referrals, where necessary

12.5 understand the theoretical basis of, and the variety of approaches to, assessment and intervention.

12.8 be able to evaluate analyses using qualitative and quantitative methods to aid the diagnosis, screening and monitoring of health and disorders

12.9 understand the techniques and associated instrumentation used in the practice of biomedical science.

13.2 gather appropriate information

13.3 analyse and critically evaluate the information collected

13.4 select and use appropriate assessment techniques and equipment

13.5 undertake and record a thorough, sensitive and detailed assessment

13.6 undertake or arrange investigations as appropriate.

13.7 conduct appropriate assessment or monitoring procedures, treatment, therapy or other actions safely and effectively.

13.12 perform and supervise procedures in clinical laboratory investigations to reproducible standards.

13.13 operate and utilise specialist equipment according to their discipline.

13.14 validate scientific and technical data and observations according to pre-determined quality standards.

13.15 demonstrate proficiency in practical skills in cellular science, blood science, infection science, molecular and genetic science and reproductive science, where appropriate to the discipline.

13.16 demonstrate practical skills in the processing and analysis of specimens including specimen identification, the effect of storage on specimens and the safe retrieval of specimens.

13.17 demonstrate practical skills in the investigation of disease processes.

13.18 work in conformance with standard operating procedures and conditions.

13.21 demonstrate operational management of laboratory equipment to check that equipment is functioning within its specifications and to respond appropriately to abnormalities.

13.22 understand the implications of non-analytical errors.

13.23 know the extent of the role and responsibility of the laboratory with respect to the quality management of hospital, primary care and community based laboratory services for near- service user testing and non-invasive techniques.

13.25 select suitable specimens and procedures relevant to service users' clinical needs, including collection and preparation of specimens as and when appropriate.

**SoP Mapping:**

13.26 demonstrate awareness of the need to assess and evaluate new procedures prior to routine use.

13.28 use standard operating procedures for analyses including point of care in vitro diagnostic devices.

13.31 safely interpret and authorise service user results.

Section: 2 – Module: 5

# Research and Development

## Module Learning Outcomes

By successfully completing this module, the candidate will be able to:

- Analyse qualitative and quantitative data and demonstrate a logical and systematic approach to problem solving.
- Critically evaluate research articles and other evidence to inform their own practice.
- Use current research in their discipline to generate hypotheses, design experiments and analyse novel data to develop their knowledge and expertise.

## Section: 2 – Module: 5

# Candidate's Choice Evidence

Below are some suggested examples of evidence you might like to consider using in your portfolio but they are not exhaustive. The evidence provided for each module must map to the HCPC standards of proficiency for this module as summarised below:

**Suggested examples:**

- Prepare a written 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 pro
- 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

**SoP Mapping:**

4.6 demonstrate a logical and systematic approach to problem solving.

4.7 use research, reasoning and problem solving skills when determining appropriate actions

12.2 demonstrate awareness of the principles and applications of scientific enquiry, including the evaluation of treatment efficacy and the research process.

13.1 change their practice as needed to take account of new developments, technologies and changing contexts.

13.8 recognise a range of research methodologies relevant to their role.

13.9 recognise the value of research to the critical evaluation of practice

13.10 critically evaluate research and other evidence to inform their own practice.

13.11 engage service users in research as appropriate.

13.29 use statistical packages and present data in an appropriate format

13.30 design experiments, report, interpret and present data using scientific convention, including application of SI units and other units used in biomedical science

# SoP mapping matrix

This mapping matrix maps each HCPC Standard of Proficiency to the relevant module. The two different symbols allow differentiation between knowledge-, and competence-based SoPs.

○ = Knowledge
● = Competence

| At the point of registration, biomedical scientists must be able to: | HCPC Standard reference | Section 1 – Professional Conduct | | | | | Section 2 – Professional Practice | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 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 |
| 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 | | | | | | | ● | | | |

○ = Knowledge
● = Competence

| At the point of registration, biomedical scientists must be able to: | HCPC Standard reference | Section 1 – Professional Conduct | | | | | Section 2 – Professional Practice | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 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 |
| 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 | | | | ● | | | | | | |
| Communicate effectively | 7.1 | | | ● | | | | | | | |
| | 7.2 | | | ● | | | | | | | |
| | 7.3 | | | ○ | | | | | | | |
| | 7.4 | | ● | | | | | | | | |
| | 7.5 | | | ● | | | | | | | |
| | 7.6 | | | ○ | | | | | | | |
| | 7.7 | | | ● | | | | | | | |
| | 7.8 | | | ○ | | | | | | | |
| | 7.9 | | | ● | | | | | | | |

○ = Knowledge
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At the point of registration, biomedical scientists must be able to:

| | HCPC Standard reference | Section 1 – Professional Conduct | | | | | Section 2 – Professional Practice | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 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 |
| 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 | | | | | | | | ● | | |
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| 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 | | | | | | | | | ● | |

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| Establish and maintain a safe practice environment | 14.1 | | | | | | | ○ | | | |
| | 14.2 | | | | | | | ● | | | |
| | 14.3 | | | | | | | ● | | | |
| | 14.4 | | | | | | | ● | | | |
| | 14.5 | | | | | | | ● | | | |
| | 14.6 | | | | | | | ○ | | | |
| Promote health and prevent ill health | 15.1 | | | | | | | ○ | | | |
| | 15.2 | | | | | | | ○ | | | |
| | 15.3 | | | | | | | ● | | | |
| | 15.4 | | | | | | | ○ | | | |