

# Criteria and Requirements for the Re-accreditation of MSc Degrees in Biomedical Science

For cohort intakes from Sept 2025

This document details the requirements for submission of documentation for re-accreditation of Masters (MSc) degree programmes in biomedical science and associated subjects or specialisms. Separate documents are available for the initial accreditation of MSc degrees, and initial accreditation / re-accreditation of BSc honours level degrees. The Institute does not accredit Higher National Certificates/ Post Graduate Certificates, Post Graduate Diplomas or Doctorate level programmes.

IBMS accredited programmes are required to identify a university liaison officer, who is the main point of contact between the university and the Institute.

IBMS accreditation is normally granted for a named programme(s) for a period of five years (five successive intakes of students), during which time the programme can be advertised using the IBMS Accredited logo. At the end of this period, the programme is eligible for reaccreditation, provided it can be demonstrated that the accreditation criteria continue to be met.

For further information about accreditation, please contact the Education Office (<a href="mailto:education@ibms.org">education@ibms.org</a>).

#### **Re-accreditation Process**

A re-accreditation is comprised of three stages:

- 1. Electronic submission of documents by the programme team for review by an IBMS-appointed panel.
- 2. An in-person (or online) re-accreditation visit comprised of a series of meetings with representatives from each stakeholder group. Stakeholder meetings required:
  - a. Programme delivery team
  - b. Current students from the Masters (MSc) programme(s)
  - c. Employers who have been involved in the design of the programme.
- 3. Determination of accreditation outcome by the IBMS panel, including post-event follow-up to address any re-accreditation conditions.

These guidance and criteria will apply equally to UK and non-UK education providers applying for re-accreditation of Masters MSc programmes for the next intake of students in September 2025.

#### Re-accreditation of Masters (MSc) Programmes Outside the UK

Education providers outside of the UK are required to agree the date for the re-accreditation event a minimum of six months before the event and provide final confirmation of travel, entry visa and hotel arrangements no less than one month before an in person reaccreditation visit.

The education provider is responsible for the booking and payment of hotel accommodation outside of the UK and return flights for the panel for any in person re-accreditation event, as

per the guidance provided by the IBMS at the point of application for re-accreditation. International re-accreditation events may also be conducted using online (MS Teams or Zoom meetings).

For further information about IBMS re-accreditation, please contact education@ibms.org

#### Changes Made to the Programme after Re-accreditation

It is a condition of accreditation that the education provider must notify the IBMS Education Office of any proposed programme changes that are related to the criteria for accreditation described in this document. For example, changes that might affect the delivery and learning outcomes of the programme, course title, new pathway, different assessment types, overall aims or changes to academic teaching staff. A clear rationale for the changes must be provided on the change notification form. Proposed changes must ensure the programme continues to meet IBMS accreditation criteria and be approved by the Institute following submission of relevant supporting documentation.

**Please note:** After each IBMS re-accreditation event, changes to the programme and modules will not be considered by the Institute for a period of 24 months. The only exception to this will be if the university imposes institutional wide policies which require a change to the accredited programme(s) organisation (e.g. modular credit weighting structure).

Extensive changes to any programme may trigger an earlier re-accreditation event. If significant institutional changes to programme structure or assessment strategies are imposed on a programme team, the Institute must be notified and a way forward will be agreed.

A change form is available on the IBMS website or by request from <a href="mailto:education@ibms.org">education@ibms.org</a> and must be completed before the changes are introduced.

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#### **INTRODUCTION**

The Institute of Biomedical Science (henceforth referred to as IBMS) is the professional body for biomedical scientists and has been accrediting biomedical science degree programmes since the 1970's.

IBMS accreditation is a process of peer review and quality enhancement that ensures professional standards of education and training standards, that are suitable for employment in the biomedical science sector, have been achieved. Biomedical science is concerned with the integration of a wide range of subjects to understand the science of causes, diagnosis and treatment of disease (pathobiology or biology of disease).

MSc programmes that can be accredited by the IBMS may be broad biomedical science programmes, or single disciplines in advanced topic areas that align with the clinical disciplines described in the Quality Assurance Agency (QAA) Subject Benchmark Statement for Biomedical Science and Biomedical Sciences (2023). The Institute will therefore accredit a range of programme titles, including MSc Biomedical Science (singular), or, for example, MSc Medical Microbiology or MSc Clinical Biochemistry. International programmes may be called Masters in Medical Laboratory Science, if that aligns with the naming convention of the clinical pathology careers of practitioners.

**Please note:** IBMS accredited MSc programmes (without an IBMS accredited BSc programme) are unlikely to provide the required qualification suitable for registration with the Health and Care Professions Council (HCPC). This information must be made clear in all marketing information and student facing documentation for the programme. Please see Appendix 4.

#### **Academic Content**

At Master's level (FHEQ Level 7 and SCQF Level 11) the indicative subject areas should align with the indicative syllabus for IBMS qualification awards such as the Specialist Diploma and Higher Specialist Diploma in the traditional disciplines of cellular pathology, clinical biochemistry, clinical immunology, haematology, medical microbiology, transfusion science, clinical genetics and also in quality, training and leadership and management in pathology. Given that these subject areas are increasingly reconfigured into Blood Sciences, Cellular Sciences, Tissue Pathology, Infections and Molecular Science in major pathology service units in the NHS, it is expected that a range of MSc award titles will be used and that these will reflect the predominant emphasis of the taught content.

MSc programmes must contain advanced scientific content, that is clearly differentiated from undergraduate subject matter. The academic content of the MSc programme, in addition to the learning outcomes described in the module descriptors, should align with the UK QAA Quality Code that states Masters level students should be able to demonstrate:

• a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study or area of professional practice

- a comprehensive understanding of techniques applicable to their own research or advanced scholarship
- originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline
- conceptual understanding that enables the student to evaluate critically current research and advanced scholarship in the discipline; to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses.

An important component of all IBMS Accredited MSc programmes is leadership and management in the context of pathology services. This content should include financial management; quality and governance; workload; HR; leadership skills (see Section 3 for more information).

#### **Closed Book Assessments**

The MSc programme may contain some elements of online delivery or distance learning. In these cases, the programme team must ensure that the IBMS accreditation criteria around closed book assessments and practical skill development continue to be met. The programme documentation must clearly articulate how assessments are conducted, where the closed book assessments are and how the students' practical skills are developed in addition to the research project.

Following a period of initial accreditation, all MSc programmes are reviewed on a five-year cycle of re-accreditation. This is an opportunity to reflect on ongoing curriculum developments, review the accumulation of minor changes and quality enhancements, external drivers and scientific advancements that should be included to ensure the programme continues to meet the current IBMS criteria for MSc programme accreditation.

#### SECTION 1: PROGRAMME RE-ACCREDITATION PROCESS

Re-accreditation is facilitated through the IBMS Education Office and all communication should be addressed to <a href="mailto:education@ibms.org">education@ibms.org</a> unless otherwise specified.

Re-accreditation will be conducted following electronic submission of all required documentation. This documentation will be reviewed by an IBMS panel (including the IBMS Education Lead, an academic representative and an HCPC-registered professional representative), followed by an on-site or online visit, for meetings with the programme delivery team, students from programme(s) and employers.

The IBMS panel members will scrutinise the re-accreditation documentation prior to the visit and identify themes for discussion during the relevant meeting(s).

Programmes will be re-accredited for the next intake of students (usually in September of the year in which the event takes place, or the following September, for a period of five years (five consecutive intakes of students). Accreditation and re-accreditation are not awarded retrospectively.

Formal certification of IBMS Accredited status will only be confirmed when all conditions set by the panel during the visit have been appropriately addressed by the education provider and ratified by the IBMS Education and Professional Standards Committee.

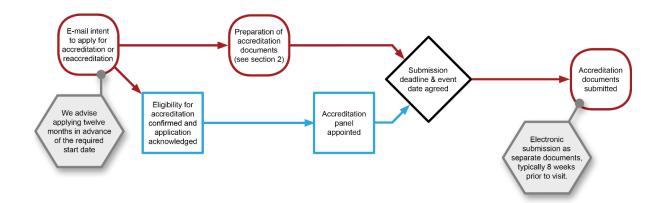
Programme teams should ensure that the timing of their re-accreditation event will enable these processes to be completed before the relevant intake of students commence their studies; the usual timeframe from initial application to ratification of IBMS Accredited status is six months, but this is dependent upon panel availability and education providers are urged to liaise with the IBMS to agree dates.

In accordance with Competition and Markets Authority (CMA) guidelines, programme teams from UK education providers should inform students who have applied to the programme and received an offer that the programme is scheduled for an IBMS re-accreditation event. Until the proposed programme has been reviewed and any conditions set by the IBMS accreditation panel are met, the academic content, module structure, assessment types and practical class content my change. It is therefore vital that applicants are advised as described in the CMA guidance for higher education providers:

"If you anticipate that there may be changes to the content and delivery of the courses described in this information, including the possible withdrawal of courses, it is important that you make prospective students aware of the likelihood of, and scope for, such changes" <a href="https://assets.publishing.service.gov.uk/media/6475b2f95f7bb7000c7fa14a/Consumer lawadvice for higher education providers.pdf">https://assets.publishing.service.gov.uk/media/6475b2f95f7bb7000c7fa14a/Consumer lawadvice for higher education providers.pdf</a>

There are three stages to the re-accreditation process:

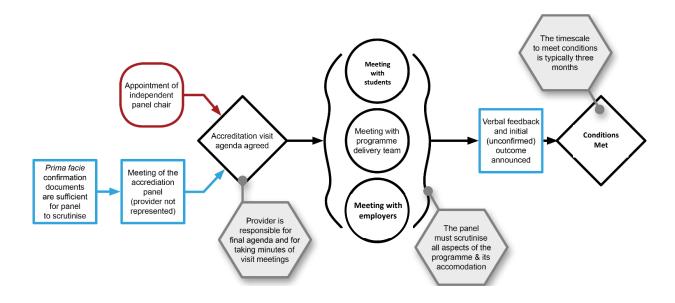
#### STAGE ONE - PRE-EVENT



- 1.1 Once a re-accreditation application has been acknowledged, the IBMS will appoint a panel and the university will be notified. Dates for submission of documentation will then be agreed. The panel will comprise:
  - One IBMS Education lead, to ensure that all required aspects of the accreditation criteria for the programme(s) have been addressed, including curriculum content, organisation and management of the programme, resourcing for the programme, assessment strategies and effectiveness of quality assurance processes.
  - One academic representative, from an IBMS accredited programme who is responsible for scrutinising the academic content and level of the programme, its adherence to sector norms, mapping to the relevant subject benchmark statement (as appropriate), plus evaluating the teaching, learning and assessment practices, quality assurance and responses to feedback from stakeholders etc.
  - One HCPC-registered Biomedical Scientist, responsible for ensuring that practitioners have opportunities to contribute to the design and delivery of all programmes, that the content is up to date and appropriate, and that there is an active and regular employer liaison group.
- 1.2 Education providers applying for IBMS re-accreditation of MSc degree programmes are expected to provide all documentation described in Section 2 of this document. Submitted documents must use the IBMS templates provided. This includes a "self-reflection" document that contains a detailed five-year evaluation of the accredited programme(s) to allow the panel to understand the student experience and quality assurance processes at the institution.
- 1.3 All files submitted should be provided in word or pdf format and the filename must short and clearly identify the content. Pages must be numbered in all documents and the content of each document listed in a contents page or by using sub-headings.

- Groups of supporting documents should be collated into sub-folders for Appendices and named clearly.
- 1.4 All re-accreditation documentation must be submitted electronically to the IBMS by the agreed date, which is usually eight weeks before the scheduled accreditation event.
- 1.5 Following document receipt, the Education Office will confirm if the documentation is complete and sufficient to allow appropriate scrutiny. Any missing documentation will be requested prior to the accreditation event being arranged and must be provided in sufficient time for the panel to review in advance.
- 1.6 The final agenda for the re-accreditation event must be agreed with the Institute's Education Lead at least one week prior to the accreditation event. The proposed agenda (including named individuals that will meet the panel from each stakeholder group) must be emailed to <a href="mailto:education@ibms.org">education@ibms.org</a>
- 1.7 Each meeting at the accreditation event must be chaired by an independent Chair appointed by the education provider (usually Head of a different School). It is the responsibility of the education provider to ensure Secretarial support for the Chair and Panel. Minutes of meetings must record the main points of discussion throughout the event. The final version of the minutes will be agreed after the event and include the final wording of any conditions etc set by the panel.

#### STAGE TWO – The Re-accreditation Event



A proposed agenda for the re-accreditation event is shown below. The order of the sessions with students and employers can be switched, if different times are more convenient for these stakeholder groups to attend.

If meetings are held virtually, they are usually held via MS Teams or Zoom. Separate sessions for the IBMS Panel to meet each group should be arranged by the education provider.

# The agenda for the re-accreditation visit will include:

	Meeting	Purpose	Suggested duration
1	Private meeting of the IBMS panel with the independent Panel Chair and secretarial support (provided by the HEI).	Panel introductions and theme setting for the event.	15 min
2	A tour of the teaching and research laboratory facilities.	Allow the panel to contextualise the documentation into the teaching spaces if the university has not had a face-to-face event before.	Usually 30- 45 minutes
3	Meeting with the programme team	This should include a presentation by the programme leader about the programme(s) being considered. If the event is online an overview of the laboratory facilities should be included (max 15 min).  All key subject-specific staff and part-time/visiting lecturers will be present to discuss details of their input into the programme and departmental research activities.	60 min
		Break (10 min)	
4	Meeting with representative students from the programme(s)	To understand the student experience and clarify aspects of the programme documentation from the student perspective.	45 min
	Lun	ch break (30-45 minutes)	
5	Meeting with employers (usually members of the Employer Liaison Group)	This meeting will explore employer and practitioner input to the delivery and future development of the programme(s).	30 min
6	If required, a final meeting of the Panel with programme team to clarify other issues.	As required	15 min
7	Private meeting of the IBMS Panel.	Consolidation of information, agree outcome and draft wording.	30 min
8	Verbal feedback report of outcomes to university staff.	Dissemination and summary.	15 min

- 1.8 At the end of the re-accreditation event, the Education Lead for the IBMS panel will provide verbal feedback and indicate the formal outcome of the visit.
- 1.9 The minutes produced by the education provider for the event should be checked internally, then sent to <a href="mailto:education@ibms.org">education@ibms.org</a> within two weeks of the event.
- 1.10 The IBMS Education Lead will confirm the final wording of the minutes and outcome of the re-accreditation event with the IBMS panel members. The agreed minutes will then be emailed to the education provider, including the formal outcome of the event and wording of any conditions, recommendations and commendations, as appropriate. The date required for completion of actions by the programme team will be suggested during the accreditation visit and agreed in the final minutes.

#### STAGE THREE – Outcome of the event

#### Outcome 1. Accreditation without conditions

The education provider has successfully demonstrated it meets all criteria for accreditation.

The Panel may make recommendations that provide an opportunity to refine or improve the education provider's approach to meeting the IBMS accreditation criteria. A formal response to recommendations is not required for accreditation but it is expected that the programme team will consider them for potential action points. Responses to recommendations should be reflected in subsequent re-accreditation visit documentation.

The Panel may also wish to give commendations for examples of good practice.

The IBMS Education Lead will provide a summary report of outcomes and a copy of the full re-accreditation report to the IBMS Education and Professional Standards Committee (E&PSC) for approval.

Following IBMS E&PSC approval, the education provider is formally notified that the programme(s) has been re-accredited and the IBMS accreditation certificate awarded.

If E&PSC has any concerns these will be discussed with the Education Lead who was lead for the re-accreditation panel and the Executive Head of Education. The Programme Leader will be contacted through the Education Office and invited to respond to the concerns.

#### **Outcome 2. Accreditation with conditions**

The education provider has demonstrated that it meets most of the criteria for reaccreditation, but the panel have identified areas where the criteria are not met.

Any conditions set by the IBMS panel will be cross-referenced to the relevant accreditation criteria to clarify what must be met. A deadline for addressing all conditions will be identified and agreed (usually three months).

The IBMS Panel may make recommendations that provide an opportunity to refine or improve the education provider's approach to meeting the IBMS accreditation criteria. A formal response to recommendations is not required for accreditation but it is expected that the programme team will consider them for potential action points. Responses to recommendations should be reflected in subsequent re-accreditation visit documentation.

The IBMS Panel may also wish to give commendations for examples of good practice.

The education provider will be required to respond to the conditions by the set date. The IBMS Response to Conditions template must be completed that contains the responses to conditions, plus any supporting documentation required. Updated documentation must clearly highlight the changes required (using track changes or different coloured font).

The documentation submitted in response to conditions for re-accreditation will be reviewed by the IBMS re-accreditation panel to confirm if the conditions have been adequately met or whether further action is required.

The Education Lead will provide a summary report of outcomes and a copy of the full reaccreditation report to the IBMS Education and Professional Standards Committee (E&PSC) for approval.

Following IBMS E&PSC approval, the education provider is formally notified that the programme has been re-accredited and the accreditation certificate awarded.

If E&PSC raises concerns about the report, these will be discussed with the Education Lead for the re-accreditation panel and the Executive Head of Education. The Programme Leader will be contacted by the Education Office and invited to respond to the concerns. If necessary, a further condition for re-accreditation and time limit for achieving this might be applied.

#### **Outcome 3. Accreditation declined**

In exceptional circumstances the IBMS panel may decide that the education provider has failed to demonstrate that it meets the majority of criteria for re-accreditation. In addition, from the discussions at the event the panel has concluded that the education provider has not been able to give sufficient assurance that if conditions were to be set, they could be met in advance of the next academic year.

The IBMS panel will identify which accreditation criteria have not been met and summarise these at the end of the event. The panel will not set any conditions or make any recommendations or commendations for programmes that are declined.

A full copy of the agreed re-accreditation event minutes that details the reasons for the panel decision to decline the accreditation will be provided to the education provider.

Following an unsuccessful re-accreditation event, the Institute will consider updated re-accreditation documentation within the same academic year. A second re-accreditation event will incur the full fee and the timescale for the new event will be agreed between the education provider and the Education Office upon application.

Alternatively, the education provider may withdraw from the IBMS re-accreditation process. This will not prejudice future applications by the education provider for accreditation of the programme.

If IBMS E&PSC raises concerns about the re-accreditation being declined these will be discussed with the Education Lead for the re-accreditation panel and the Executive Head of Education.

#### Following IBMS Education and Professional Standards Committee consideration:

- 1.12 The education provider will be notified in writing that their programme(s) have achieved IBMS Accredited status following satisfactory responses to conditions set and formal ratification at IBMS E&PSC.
- 1.13 IBMS Accredited programmes will be advertised on the Institute's website and the education provider will receive an accreditation certificate for the period of accreditation and permission to use the Institute's Accredited University logo. Only programmes that have current accreditation will be advertised on the Institute's website. The education provider will be expected to complete annual monitoring reports when requested by the IBMS.
- 1.14 Failure of the education provider to maintain compliance with the criteria for IBMS accreditation will trigger a review by the Institute that may result in withdrawal of the accreditation status of the programme or programmes.
- 1.15 Following a period of initial accreditation all programmes are normally reviewed on a five-year cycle of re-accreditation. Education providers will be contacted by the IBMS at the beginning of the final academic year of their accreditation period to discuss arrangements for re-accreditation.

# Right of Appeal

Once the education provider has been formally notified of the outcome of the reaccreditation event, they have the right of appeal within one month of the event. The grounds for appeal are if the education provider feels that the accreditation criteria have not been applied fairly, or it is felt the re-accreditation panel has overlooked evidence that the IBMS accreditation criteria have been met.

Appeals should be put in writing to the IBMS Education Department stating the reasons for the appeal and sent to <a href="mailto:education@ibms.org">education@ibms.org</a>

Appeals will be reviewed by the Executive Head of Education, Education Lead for the Panel (if different to Executive Head of Education), Chair of the IBMS Education and Professional Standards Committee and the Committee's academic representative.

#### **SECTION 2: DOCUMENTS FOR RE-ACCREDITATION**

Documentation submitted for the IBMS panel to review must specifically demonstrate compliance with the IBMS accreditation requirements. To assist the IBMS panel scrutiny, submitted documents must be directly relevant to the programme, provide evidence that specifically addresses the accreditation criteria and is easy to navigate.

#### **Self-reflection Document**

For programmes seeking re-accreditation, the IBMS programme "MSc self-reflection document" template must be completed (available on the IBMS web page under the "Accredited Degrees" tab and Resources for Course Leaders).

Within the self-reflection document, the academic team will complete an executive summary about the programme(s) being re-accredited. This summary will outline key information on how any changes introduced at the last accreditation / re-accreditation event have been received, how the programme has been running in its current format, plus any key changes being requested at the re-accreditation event. The IBMS self-reflection document template contains a series of sections and subsections to allow detailed reflection on how the programme is resourced, opportunities for staff development, relevant academic staff expertise and how local employers have been able to input into the design and delivery of the clinical specialisms. The student experience, plus attainment and retention data, responses to feedback from key stakeholders and action plans that underpin robust quality assurance processes will also set the context for the programme delivery.

To support the IBMS self-reflection document, further supplementary documentation is required for each programme seeking IBMS accreditation. These documents are:

- Programme Specification
- Programme Handbook
- Student Handbook (if different to the programme handbook)
- Mapping of assessments to module (or programme) learning outcomes
- Assessment timetables for each level of study to indicate the type of assessment and week it is delivered (using the IBMS template)
- Evidence that closed book assessments take place during the programme (note that online un-invigilated or proctored assessments do not meet IBMS accreditation criteria).

- Mapping of the technical / practical skills and transferable skills developed during the programme (using the IBMS template)
- Module specifications (including up to date reading lists and resources list, eg journals or published guidance)
- Completed module content mapping (using the IBMS template)
- Research Project Handbook (including indicative project titles, arrangements for student selection and allocation of titles)
- Example quality assurance documentation for the most similar programmes (for example annual PTES data (or equivalent for international education providers), staff student liaison committee minutes, annual monitoring reports and external examiner reports) and associated responses or action plans for the duration of the previous accreditation period.
- A description of how employers and HCPC registered biomedical scientists have been involved in curriculum design and will contribute to ongoing delivery of the programme, as evidenced by minutes of Employer Liaison Group meetings and actions plans / logs.
- Detailed staffing plan for programme delivery (to include the academic team, technical staff and visiting / associate / adjunct lecturers).
- Staff development opportunities and support for both academic staff and visiting lecturers
- CVs of all academic staff and practitioners who will be contributing to delivery of the taught content (using the IBMS staff CV template)

#### Supplementary Documentation (to be provided in Appendices):

The documents listed below will support the context statement document submitted by the academic team for scrutiny by the IBMS panel. Please see Appendix 3 for information on how the supplementary documents will help to evidence that the programme meets the IBMS accreditation criteria:

#### **Programme Specification**

The programme specification acts as a definitive record of the course, setting out the aims and learning outcomes, and how they are met. This acts as a reference point for the delivery, assessment, monitoring and review of the programme and should be designed to be shared with academic and support staff, students, internal and external examiners, professional and statutory bodies, and academic reviewers.

The programme specification is expected to contain clear information on the admissions process and entry requirements for the programme. It should clearly specify the English language requirements for admission to the programme. Any university policies for credit transfer (i.e. accreditation of prior learning, accreditation of prior credits or recognition of prior learning), selection procedures and equal opportunities / widening participation should be referenced.

The programme specification should include the named award (MSc Biomedical Science (singular)) and / or named specialisms, and all exit awards. The exit awards and fallback awards should not be called Biomedical Science.

#### **Programme Handbook / Student Handbook**

This document will be distinct from the programme specification and will serve as the main reference document for students.

The Handbook must include the following information: Programme title, duration, attendance pattern and all named award titles; course aims and learning outcomes; rationale for the design of the programme. There should be a summary table or diagram of the compulsory modules and optional modules in the programme, clearly showing all routes through the programme(s). There should also be a summary table that shows how the programme learning outcomes map to each module.

The Handbook must also contain adequate information regarding relevant university regulations and policies, programme content, pastoral care arrangements, student support mechanisms, student representation system, career opportunities and the role of professional and regulatory bodies. Information about the IBMS (<a href="www.ibms.org">www.ibms.org</a>) and registration with the HCPC (<a href="www.hcpc-uk.org">www.hcpc-uk.org</a>), and the differentiation of the two, must be clear and accurate with links to the websites.

It must be made clear to students who are already HCPC registrants, that they must be familiar with and abide by the updated HCPC Standards of Conduct, Performance and Ethics and the IBMS Good Professional Practice in Biomedical Science. Students' attention should be particularly drawn to the key changes in the HCPC Standards of Conduct, Performance and Ethics that include appropriate use of social media, equality diversity and inclusion, communication, duty of candour, upskilling and training responsibilities and managing existing health conditions and disabilities in the workplace.

#### More information can be found here:

https://www.hcpc-uk.org/standards/standards-of-conduct-performance-and-ethics/revised-standards/

https://www.ibms.org/resources/documents/good-professional-practice-in-biomedical-science/

The Handbook must include details of assessment strategies used in the programme and rationale for these; Assessment Board arrangements; details of penalties for late submission of coursework; and approaches to preventing academic misconduct and plagiarism. There should be clear information provided to students on the institutional policies and guidance on the use of generative AI (eg ChatGPT) in modules and assessments. It must be clear to students what is permitted and considered appropriate use of AI in formative work and what is not permitted in summative assessments. Any penalties associated with inappropriate use of AI must also be clearly stated. The number of attempts that students have at all assessments within the programme must be clearly articulated, information on condonement and compensation of credits and the arrangements for transfer to any fallback award or exit award must also be clearly explained.

#### **Module Descriptors**

The module descriptors should outline the balance of lectures, practical classes, tutorials and flexible or online learning. Summaries of the taught content for each module should be

provided. Information on the level of the module, the number of credits and a description of each assessment component must be included. The contents of each individual module must have sufficient detail to indicate the depth and breadth of its contents and indicative reading. The module learning outcomes and / or programme learning outcomes associated with the module must be listed and be appropriate to the academic level. Reading lists and other resources for each module must be included and be current and appropriate.

**Please note:** Condonement and / or compensation is not permitted for any module(s) where the learning outcome(s) cannot be met elsewhere in the programme.

#### **Research Project Handbook**

**Please note:** The research project module must be 60 credits of the total 180 credits studied at Master's level. The research project must be passed and cannot be condoned or compensated.

The Research Project Handbook should include full details of the research project organisation and support available (e.g., supporting lecture programme; practical skill development; amount of supervision available, scheduling of supervisor meetings etc.). The range of project titles issued previously should be described, with some example titles provided and the arrangements for project allocation; data collection period for students; information on the production/structure of the dissertation; descriptions and explanations of the assessment components including marking schemes, and if applicable funding arrangements; the organisation of any research projects (completed with external supervisors), plus the support for students, equitability of data collection periods and responsibilities of external work-based supervisors should all be clearly explained.

## **Staff Student Liaison Committee (or equivalent) Meeting Minutes**

The staff student liaison committee (or equivalent) must meet regularly and provide opportunities for all student cohorts (including part time students) to provide feedback to the academic team on their pastoral support, taught modules, practical classes and overall student experience. The minutes should capture the discussion between student representatives and academic colleagues and contain clear actions that are reported on at the next meeting. It should be clear how the feedback loop to the rest of the students on the programme is closed and how they are informed of the actions of the academic team to address the issues or concerns raised.

If distance learners or part time students cannot attend these meetings, then it must be clearly articulated how their feedback is brought to the meeting to be considered.

## Postgraduate Taught Experience Survey (PTES) Data and Action Plans

The annual Postgraduate Taught Experience Survey (PTES) data for all UK-based MSc programmes being reviewed must be included as supplementary documentation for each year of the previous IBMS accreditation period. The main themes from each set of PTES data should be presented in a PTES action plan (if these are normally produced by the programme team), or as part of programme annual monitoring reports or programme enhancement

plans. Action plans to address any areas of concern should be clearly highlighted, along with areas of good practice to be disseminated.

If student numbers are too low to attain PTES data, alternative feedback (on the modules and programme overall) must be presented instead. It must be clear from the data presented that it is feedback from students on the IBMS Accredited programme, not an amalgamation of feedback on several post-graduate taught programmes.

If the Master's degree is from a non-UK provider, evidence of student feedback on the modules and each year of study should be provided and an action plan for how any issues or concerns have been addressed for the previous three year period.

#### **Programme Level Annual Monitoring Reports**

The institutional (university) annual monitoring reports for any existing MSc Biomedical Science programmes (or the most similar programme) must be included as supplementary documentation for the previous three years. The main themes identified following analysis and evaluation of each set of data for the programme should be discussed. Action plans to address any areas of concern should be clearly highlighted, along with areas of good practice to be disseminated outside the programme.

#### **External Examiner Reports and Responses**

The External Examiner is involved in the quality assurance processes for a programme throughout the annual cycle, usually for a three- or four-year term of office. During the academic year the External Examiner is sent the draft of the Examination papers to review. They are asked to review the examination questions to confirm that they match the learning outcomes of the module and are appropriate for the level (i.e. year) of study. They give feedback and suggest rewording of the questions used in assessments to ensure a progression of learning standards throughout the programme. The examiner also has an independent view on the questions and can perhaps see where a question could be interpreted several ways and may suggest rewording to ensure clarity.

**Please note** - At least one external examiner for the programme(s) must be actively involved in the delivery of an IBMS accredited degree programme elsewhere in the UK (or other country for international provision). They would ideally be involved in the delivery of a post-graduate taught degree. This is required so that the external examiner is able to ensure:-

- that the standards set for the University's awards and a programme's constituent courses are appropriate by reference to the QAA Subject Benchmark Statement (as appropriate) the National Qualifications Frameworks, the relevant Programme Specification and, where appropriate, the requirements of relevant Professional and Statutory Bodies;
- That the level of the module content and assessment types are appropriate for a
  postgraduate programme and show the development of higher level skills as the
  students progress;
- that the standards of student performance in a programme and its constituent courses are appropriate and comparable with those of other IBMS accredited MSc programmes;
- that the processes for assessment, examination and the determination of awards are sound and have been conducted fairly in accordance with university regulations.

External examiner reports for the programme(s) being delivered must be included as supplementary documentation for the previous five years. The main themes identified following analysis and evaluation of each external examiner report should be discussed. Responses to the external examiners that include action plans to address any areas of concern should be provided, along with areas of good practice that have been highlighted.

#### Employer Liaison Group (ELG) Meeting Minutes (with indicative membership)

**Please note** - All IBMS accredited postgraduate programmes must demonstrate that there is satisfactory liaison with local employers including registered biomedical scientists through an active ELG, regardless of whether the programme contains a placement.

The Employer Liaison Group (ELG) provides a formal mechanism for the views of employers and HCPC registered biomedical scientists to be taken into consideration in the design and delivery of the programme. In the context of university/employer liaison employers are seen as professional advisors who are experienced practitioners or industry colleagues capable of having input to the development and improvement of courses by advising on subject-specific areas for theoretical knowledge and current / relevant practical skills that underpin the professional training in pathology disciplines. As not all students seek, or are already in, employment in pathology laboratories, input from employers working in other biomedical science sectors is also desirable, and essential where placement opportunities are being offered. Some of the external members of the Employer Liaison Group may have a teaching role on the course on a part time or visiting basis.

The role of the ELG can apply to single of multiple programmes accredited by the IBMS. There should be clear Terms of Reference for the Employer Liaison Group and agenda items that cover any clinical specialism modules in the programme, employability and currency of taught content and practical skill development. Minutes of the meetings should reflect the following roles of the ELG for each programme:

- offer expert advice to the Programme Leader and academic team on the content and relevance of the degree to professional practice in clinical pathology laboratories
- ensure that the delivery and structure of the programmes takes into account the support required from the laboratory (e.g. teaching the clinical specialisms)
- contribute to the ongoing and periodic review of degree programmes in line with service requirements and professional/regulatory standards
- contribute to the delivery of the clinical specialism modules to ensure that they are current and fit for purpose
- advise on new opportunities in biomedical science education that could enhance education and training in biomedical science
- inform the education provider of changing needs relating to service delivery and employment as a biomedical scientist.

The membership of the ELG should include:

- Chairperson (usually the Programme Leader)
- Two -three academic representatives from the programme team for biomedical science
- professional representatives from local employers, ideally to include all clinical specialisms (clinical biochemistry, haematology and transfusion science, medical microbiology, cellular pathology, clinical immunology and genomics)

The benefits of university/employer liaison committees are to:

- ensure biomedical science practitioners can input to the design of the programmes
- ensure the programmes reflect the professional ethos of biomedical science
- ensure the programme content is current and meets the requirements of biomedical science and its practitioners
- ensure the programmes meet the needs of local employers and enhances the employability of graduates
- provide useful advice/feedback from prospective employers
- provide a local network of practitioners and industry colleagues who can become visiting lecturers for the programme
- enable research strategy to include potential partnerships with employers.

The Employer Liaison Group (ELG) is expected to meet regularly (more than once) during each year, either face to face or on-line (e.g., Zoom, MS Teams). It is expected that the indicative agenda for these meetings will include reflection on the modules in each year of the programme, discussions on the currency of clinical specialism module content, placement information (as applicable), careers and employability embedded in the programme, plus relevant collaborations, events and other employer facing activities.

#### CVs for All Staff (Academic and Visiting Lecturers)

Short CVs must be provided (using the IBMS template) for all academic staff who will contribute to modules on the programme <u>and</u> for all external practitioners (visiting / associate lecturers) that will teach on the clinical discipline specific subjects.

The CVs should be compiled into a single document and split into the following groups – Academic Staff CVs and then Visiting Lecturer CVs.

The CVs should be in a standardised format and contain only the following information added to the IBMS staff CV template document per person:

- Name and title
- Present post and previous posts held in academic institutions
- Main teaching activities relevant to the programme
- Module names and codes that they contribute to
- Other activities relevant to programme delivery e.g., placement co-ordinator/ admissions tutor
- Academic qualifications (e.g. BSc, MSc, PhD), year obtained and awarding institution

- Professional qualifications (e.g. PGCE for higher education, any category of Fellowship of Advance HE, or professional qualifications in the clinical specialisms for visiting lecturers)
- Professional membership/involvement (last three years only)
- External professional activities (last three years only)
- Brief summary of research interests (last three years only)
- Publications (last three years only)
- Other professional development activities undertaken

# **SECTION 3: REQUIREMENTS OF THE PROGRAMME CURRICULUM**

The Framework for Higher Education Qualification in England and Wales (FHEQ) and Scottish Credit and Qualifications Framework (SCQF) defines Master's level as presupposing that students can show originality in the application of knowledge, and the ability to deal with complex issues both systematically and creatively, showing originality in tackling and solving problems. It is expected that IBMS accredited MSc programmes will be aligned to the QAA Master's degree characteristics statement (Feb 2020) and will offer **more advanced and specialist topics** that are aligned to and build on the clinical specialisms defined in the QAA subject benchmark statement for Biomedical Science and Biomedical Sciences (2023). The Master's programme should not contain basic knowledge or introductory topics in any of the clinical specialisms.

The MSc programme must also contain content on leadership and management to help candidates to further their careers to meet IBMS accreditation criteria. These topics should be relevant to clinical pathology and might include some of the following:

#### Financial management

- budget review and common terms (accrue, favourable, adverse, pay and non-pay).
- Cost Improvement Programmes (CIPs)
- Cost per test (CPT)

#### Quality and Governance

- Applicable accreditation bodies (UKAS) and standards used (ISO) or equivalent for international programmes
- Applicable regulatory bodies (HTA, HFEA, MHRA, HSE) or equivalent for international programmes

#### Awareness, knowledge and understanding of the following:

 Risk and incident management, including Serious Incidents and RIDDORS (knowledge and understanding of raising, investigation, patient safety, closing of incidents / understanding of risk description, scoring, mitigation)

#### Workload

- Knowledge and understanding of key performance indicators (KPIs) and metrics
- Workload activity
- Demand and capacity

#### HR

- Workforce metrics (appraisal, sickness, turnover)
- Equality, diversity and inclusion (EDI)
- Well-being (physical health and mental health)

#### Leadership

- How to lead a team effectively, what good leadership is comprised of, including reference to compassionate leadership.

Furthermore, postgraduate study involves development of reflective practice, ability to demonstrate self-direction and originality in tackling and solving problems. Post-graduate students should be developed through the Master's programme, such that the individual can improve personal professional activity, critically evaluate scientific information sources and methodologies and continue to develop their ability to work independently and autonomously.

The aim of professional body accreditation is to ensure that, through a spirit of partnership between the IBMS and education provider a good quality post-graduate taught degree is achieved that prepares the student for employment in circumstances requiring sound judgement, critical thinking, personal responsibility and initiative in complex and unpredictable professional environments.

More specifically, MSc Biomedical Science programmes should aim to produce graduates who:

- have a flexible approach to problem-solving in the field of biomedical science;
- have sufficient knowledge/skills to enhance their biomedical science practice at a supervisory level;
- are able to work independently, reflect on their practice and use initiative in solving the diverse problems that may be encountered;
- are capable of developing a critical appraisal of the relative merits and limitations of the techniques employed in their chosen specialism within biomedical science;
- are able to develop a responsible attitude to the promotion of new developments and the maintenance of standards within biomedical science.

If the candidate's BSc degree is obtained outside of the UK and the student's first language is not English, the education provider will also need to provide evidence of how these students are supported to meet HCPC English language requirements. Please visit their website (<a href="https://www.hcpc-uk.org">www.hcpc-uk.org</a>) for more information.

#### 3.1 Specific requirements of programme content

- The learning outcomes of the curriculum of taught postgraduate courses must meet, if not exceed, those stipulated in the relevant qualification descriptors for a higher education qualification at M level
- There should not be more than 25% of undergraduate level content in a Masters programme. If undergraduate content is included, it must be from FHEQ level 6 or SCQF level 10 and be assessed using appropriate M-level learning outcomes and assessment types.

- The accredited MSc programme should be able to demonstrate the following objectives:
  - acquisition of an advanced knowledge base to support understanding of current and future aspects of biomedical sciences encountered in the working environment,
  - o develop understanding of quality assurance, clinical application of investigative techniques, clinical governance, leadership and management of teams and processes.
  - o development of relevant knowledge and skills in appropriate branch(es) of biomedical science for the identification and resolution of problems
  - development of competence in design and execution of research and interpretation of data
  - o appreciation of the advantages, limitations and applications of a range of biomedical techniques
  - enhancement of skills in the communication of information and research results
  - experience in completing a substantial research project that includes critical analysis and evaluation of original data to test hypotheses
- The research project will normally be laboratory-based within a discipline of biomedical science, although other project types can be used. Those that are approved by the IBMS are shown in Appendix 2. The research project must contribute at least one third of the total credits constituting the award of Masters degree.
- The structure of the project and arrangements for project title selection and allocation, supervision, data collection and assessments must be clearly defined. It is particularly important for part-time programmes to clearly articulate how the necessary support and resources either within a student's workplace or in the degree awarding institution are put in place so that the research project experience is equitable for all students. When a student is undertaking a project outside the awarding institution, their external supervisor must have undergone appropriate training and the arrangements for marking the research project must be clearly articulated.

# **SECTION 4: GENERAL REQUIREMENTS OF THE PROGRAMME**

#### 4.1 Programme Management and Resources

- There should be a clear rationale for delivering the MSc degree programme(s) as an integral part of the Faculty/School with requisite support and resources, which should be sufficient for the projected number of students.
- The education provider should have a clear strategy to provide adequate physical resources to sustain the programme; including laboratory facilities for research and practical classes.
- There should be a clear description of the staff development opportunities for all staff involved in delivering the programme, including visiting lecturers.
- There must be arrangements in place to ensure local stakeholders (including registered biomedical scientists) are involved in the development of the programme and continue to be involved in its delivery to ensure graduates are fit for purpose. This should include a formal mechanism (e.g., an Employer Liaison Group) for the views of employers to contribute to the design and delivery of the programme.
- There must be appropriate input from suitably qualified and experienced biomedical scientists as visiting lecturers to ensure that there is a contribution from the profession for the delivery of the key laboratory specialties. The knowledge of these individuals must be current to the needs of professional practice.
- The relationship of teaching staff to the delivery of modules and their research interests should be evidenced in summary CVs.
- There must be a named liaison contact through whom the IBMS can disseminate IBMS information.
- The programme specification must highlight the distinct features of the biomedical science Master's degree course(s), including title, overall aims and learning outcomes.

Admission procedures must give both the applicant and the education provider the information they require to make an informed choice about whether to take up the offer of a place on the accredited MSc programme.

- Entry requirements, together with the selection criteria used for interviews and possible exemption arrangements, should be specified and evidence the requirement for a good command of reading, writing and spoken English.
- There must be a clear policy and procedure for assessing students by Accreditation of Prior Learning (APL) and Recognition of Prior Learning (RPL) to ensure they are able to meet all the learning outcomes in the MSc programme.

• Individual modules and exit awards (Postgraduate Certificates and Diplomas) from an IBMS accredited Master's degree can be recognised for the purpose of CPD.

#### 4.2 Module Content and Organisation

- There must be clear descriptions of the modular content and mode of delivery (lectures, practicals, tutorials, distance learning or online learning), including the credits of each module, with appropriate learning outcomes and methods of assessment. The delivery of subject-specific, transferable skills and technical skills should be evident.
- Where online or distance learning forms part of the degree, details will be required on course delivery and modules. Student/tutor and student/student contact time must be clearly defined together with any specific requirements relating to employer support and the use of digital communications.
- The contents of each individual module must have sufficient detail to indicate the depth and breadth of its contents and where relevant reflect advanced clinical laboratory specialisms that build on those defined in the QAA subject benchmark statement for Biomedical Science and Biomedical Sciences (2023). Reading lists and other resources for each module must be current and relevant.
- The student handbook must provide adequate information regarding relevant institutional regulations and policies, programme content, and if applicable funding arrangements, responsibilities of work-based supervisors, pastoral care arrangements, student support mechanisms, student representation system, career opportunities and the role of professional and regulatory bodies. Information about membership of the IBMS, its role and routes to HCPC registration must be clear and accurate.
- The research project arrangements must include full details of the project organisation and support available (e.g., supporting lecture programme; amount of supervision available, etc.), how the project title is decided and allocated, arrangements for project supervision if the project is undertaken the workplace, information on the production/structure of the dissertation; assessment arrangements and marking criteria. This may be contained in the student handbook or a separate project handbook.

#### 4.3 Assessment

Assessment methods should be clearly related to the aims and objectives of the overall programme, its specific components and related learning outcomes. Assessment methods must be varied, authentic and inclusive. The use of formal, closed book assessments must be evidenced during the programme, including modules that are delivered online. There must be evidence of assessments that directly assess the student's own knowledge and understanding and these should be clearly described with examples in the submission, together with the education provider's policy on assessment. Note: online examinations that are open book or proctored do not meet IBMS accreditation criteria.

Assessment information provided to students must include details of assessment strategies used in the programme and rationale for these; Assessment Board arrangements; details of penalties for late submission of coursework; and approaches to preventing academic misconduct and plagiarism. There should be clear information provided to students on the institutional policies and guidance on the use of generative AI (eg ChatGPT) in modules and assessments. It must be clear to students what is permitted and considered appropriate use of AI in formative work and what is not permitted in summative assessments. Any penalties associated with inappropriate use of AI must also be clearly stated. The number of attempts that students have at all assessments within the programme must be clearly articulated, information on condonement and compensation of credits and the arrangements for transfer to any fallback award or exit award must also be clearly explained.

- Please note: Condonement and / or compensation is not permitted for any module(s) where the learning outcome(s) cannot be met elsewhere in the programme. Criteria for any condonement or compensation within the programme should be clearly identified within relevant documents such as student handbooks, module descriptors, programme specifications, modules handbooks etc.
- Assessment regulations must require a pass mark to be achieved for the project at M level, which must carry at least 60 credits, and take the form of an independent research project. This can be a laboratory or non-laboratory project, but <u>not</u> a 'literature review' (See Appendix 2).
- Central to the process of assessment is the involvement of external examiners with responsibility to ensure that standards are comparable with education providers in the UK who are offering IBMS-accredited biomedical science degree programmes. There must be at least one external examiner from the programme team of an IBMS-accredited degree. For overseas institutions the external examiner should also be familiar with UK systems and practices.

#### 4.4 Programme evaluation, curriculum development and quality assurance

- The programme must evidence that they have regular and effective monitoring and quality assurance and enhancement processes in place.
- There should be monitoring mechanisms to confirm a student's understanding of policies and procedures and support mechanisms for using them.
- There should be evidence of student feedback, responses to their feedback and student engagement with programme development (including module evaluation and Postgraduate Taught Experience Survey (PTES) data for UK programmes).
- A Staff/Student Liaison Committee (or equivalent) must meet regularly to inform the
  ongoing design, development, delivery and content of the programme. All student views
  (including part time or distance learning students) must be captured for these meetings.

- An Employer Liaison Group / Committee (comprising employers, practitioners and if possible service users) must meet regularly to inform the design and delivery of the programme.
- Internal annual monitoring reports (AMRs) and/or similar quality assurance documents must evidence regular and effective monitoring, evaluation and clear action-planning.
- External examiners must be appropriately qualified and experienced and from another IBMS-accredited programme. All external examiner reports, responses and action plans for the previous 5 year period must be provided

As described in the QAA subject benchmark statement for Biomedical Science and Biomedical Sciences (2023), graduates from a Master's degree in Biomedical Science or Biomedical Sciences, should demonstrate the following benchmark outcomes:

Benchmark outcome	Threshold standard	Excellent standard
Develop, integrate, synthesise and apply the systematic and broad understanding of relevant and state-of-the-art biological/biomedical concepts to solve complex problems.	With significant support and guidance.	With a high degree of independence and autonomy.
Interrogate and integrate diverse sources of scientific literature alongside other information sources, in order to design and develop methods for investigation and analysis, including in areas at the forefront of knowledge and outside their current specialist knowledge.		
Project planning, including, as appropriate, evaluation of ethics, hazards, environmental effects, sustainability and appreciation of costs.		
Development of advanced experimental and investigative skills as appropriate for the project.		
Discussion of the background, context, methods, results and potential impact of a significant research project.		

#### **SECTION 5: IBMS ACCREDITATION CRITERIA FOR MSc PROGRAMMES**

The IBMS accreditation criteria listed in the table below will be used to determine if the MSc programme meets the Institute's requirements for accreditation.

These criteria should be used by the programme team as a guide when collating the information in the context statement document and supporting documentation submitted for scrutiny by the IBMS panel. The IBMS panel will review and assess the documentation against the criteria listed below:

1	Programme Management and Resources
1.1	There should be a clear rationale for delivering the degree programme that demonstrates the programme is sustainable, fit for purpose and effectively managed.
1.2	The degree award title, fallback awards plus exit awards should be clearly articulated. Exit awards should not be called Biomedical Science
1.3	The programme specification and programme handbook must highlight the distinct features of the MSc programme(s), including information on the IBMS, HCPC and clarification on the routes to registration as a biomedical scientist
1.4	The programme must be taught in English
1.5	Students must be capable of meeting the HCPC language requirements at the point of graduation. Universities admitting students from outside the UK will be expected to provide details of how this is confirmed.
1.6	The admissions process must give both the applicant and the education provider the information they require to make an informed choice about whether to take up, or make an offer, of a place on a programme.
1.7	There must be clear policies and procedures for assessing students by Accreditation of Prior Learning (APL) or Recognition of Prior Learning (RPL) to ensure they have previously studied the correct curriculum and are able to meet all the learning outcomes in the programme.
1.8	The education provider must ensure that they adhere to equality diversity and inclusion policies in relation to applicants.
1.9	There must be an adequate number of appropriately qualified and experienced staff employed by the education provider to deliver an effective programme.
1.10	Staff CVs must clearly show that suitably qualified and experienced academic staff and biomedical scientists (including visiting lecturers) deliver the taught content of the programme.

1.11	Staff development opportunities that support on-going research and scholarly activity of the programme teaching team (academic
	staff and visiting lecturers) must be clearly evidenced.
1.12	The education provider must evidence a clear strategy to provide adequate physical resources (e.g. teaching spaces and
	laboratories) to sustain programme delivery and expansion.
1.13	There must be a named liaison contact for the IBMS accredited MSc programme(s), through whom the IBMS can disseminate IBMS
1.13	information and request annual monitoring information.
2	Module Content and Organisation
2.1	The contents of any clinical specialism modules must cover advanced topics that align with and build on the undergraduate
2.1	content from the QAA Subject Benchmark Statement for Biomedical Science and Biomedical Sciences (2023).
2.2	The course content must include point of care testing, quality assurance, clinical application of investigative techniques, clinical
2.2	governance and relevant leadership and management skills in biomedical science.
2.2	Undergraduate content must comprise less than 25% of the Masters programme. If undergraduate content is included, it must be
2.3	from FHEQ level 6 or SCQF level 10 and be assessed using appropriate M-level learning outcomes and assessment types.
2.4	The module descriptors/specifications must be clear, indicating appropriate delivery methods (lectures, practicals, tutorials,
2.4	flexible learning), the number of credits, plus clear information on Masters-level learning outcomes and assessment methods.
2.5	The extent of mixed-mode (online/hybrid) delivery and its relationship to module learning and assessment strategy must be
2.5	detailed.
2.6	The IBMS practical and transferrable skills mapping template must be completed to show how these skills are developed by
2.6	students through the programme.
2.7	The organisation, allocation and supervision arrangements for the research project module, plus information on supporting taught
2.7	content and skill development must be clearly documented.
2.0	Example research project titles should be provided and details of the type of projects offered that meet IBMS requirements
2.8	(Appendix 2)
2.0	If the research project is completed in the workplace, the time allocated to complete the work, duration of data collection, FHEQ
2.9	or SCQF level of the project and supervision must all be aligned with the capstone projects completed at the university.
2.10	Reading lists and other resources for each module must be current and relevant.
3	Assessment
	Assessment methods must be clearly related to the aims and objectives of the overall programme and link to specific learning
3.1	outcomes and module content at Master's level.
3.2	Assessment methods must be varied, authentic and inclusive.

3.3	Assessments must provide an objective, fair and reliable measure of learners' progression and achievement.
3.4 The IBMS assessment mapping template must be completed, to ensure a clear and logical assessment strategy with no	
	clustering of assessment or marking.
3.5	The use of formal, closed book assessments must be evidenced during the programme. These must be clearly described and
	explained in the documentation, together with the education provider's policy on assessment.
3.6	The use of any Gen AI tools (for example ChatGPT) in any modules and / or assessments must be clearly articulated, along with the
3.0	institutional policies on the permitted use of GenAI and any penalties for inappropriate use
3.7	Assessment policies must clearly specify requirements for progression and achievement within the programme, including the
	number of attempts permitted.
3.8	There must be an effective process in place for learners to make academic appeals.
3.9	Condonement/compensation is not permitted for any module(s) where the learning outcome(s) cannot be met elsewhere in the
3.3	programme.
3.10	The research project module must be 60 credits of the total 180 credits for the MSc programme and a pass mark of 50% must be
	achieved.
4	Programme evaluation, curriculum development and quality assurance
4.1	Monitoring mechanisms must be in place to confirm a student's understanding of institutional policies and procedures.
	Student feedback, responses to feedback and action plans should be clearly documented. This should include module evaluation
4.2	and Postgraduate Taught Experience Survey (PTES) data for UK programmes, or equivalent student feedback for international
	education providers
4.3	A Staff/Student Liaison Committee (or equivalent) must meet regularly to inform the ongoing design, development, delivery and
7.5	content of the programme.
4.4	An Employer Liaison Group / Committee (comprising employers, practitioners and ideally service users) must meet regularly to
7.7	inform the design and delivery of the programme.
4.5	Internal annual monitoring reports (AMRs) and/or similar quality assurance documents must evidence regular and effective
4.5	monitoring, evaluation and clear action-planning.
4.6	External examiners must be appropriately qualified and experienced and from another IBMS-accredited programme
4.7	External examiner reports, responses and action plans for the programme(s) from the previous five year period must be provided
7.7	to demonstrate quality assurance and enhancement processes

#### **APPENDIX 1: GENERAL INFORMATION**

#### A. Purpose of IBMS accreditation of MSc qualifications

Accreditation is a process of peer review and recognition by the profession of the achievement of quality standards for delivering MSc Biomedical Science programmes which build on the clinical specialism content of the QAA subject benchmark statement for biomedical science and biomedical sciences (2023) and align with QAA guidance for Masters level programmes. The following is not an exhaustive list but highlights the key purposes of IBMS accreditation.

- 1. Evidences the achievement of a benchmark standard of education specific to careers in biomedical science.
- 2. Promotes the development of specific knowledge and competence that advances professional practice to benefit healthcare services, patients and professions related to biomedical science.
- 3. Ensures curriculum content is both current and anticipatory of future change.
- 4. Ensures research is embedded in academic teaching and student development.
- 5. Facilitates peer recognition of education and best practice and the dissemination of information through education and employer networks.
- 6. Ensures qualification is fit for purpose and relevant to employment in the biomedical science sector.
- 7. The degree award provides access to professional body membership as a Member and/or Chartered Scientist.
- 8. Strengthens links between the professional body, education provider, employer and student.

#### B. Framework for higher education qualifications

The Framework for Higher Education Qualification in England and Wales (FHEQ) and Scotland Credit and Qualifications Framework (SCQF) defines Masters Level as presupposing that students can show originality in the application of knowledge, and the ability to deal with complex issues both systematically and creatively, showing originality in tackling and solving problems.

Students at this level should be able to demonstrate:

• a systematic understanding of knowledge and a critical awareness of current problems much of which, is at, or informed by, the forefront of the academic discipline.

- a comprehensive understanding of techniques applicable to their own research.
- originality in the application of knowledge.
- A conceptual understanding that enables the student to evaluate critically current research in their discipline.

Masters Graduates should be able to:

- deal with complex issues systematically and creatively and communicate findings to specialists and other professional groups.
- demonstrate self-direction and originality in problem-solving across a variety of areas.
- continue to advance their knowledge and understanding, and to develop new skills to a high level and possess the necessary qualities and transferable skills at an advanced professional level.

#### C. Students and the IBMS

During their degrees, students are eligible to become an IBMS eStudent member (and receive an online subscription to our monthly magazine *The Biomedical Scientist* and quarterly publication the *British Journal of Biomedical Science*, plus many other benefits. The IBMS offers a group discount to universities wishing to purchase student membership for 10 or more students. Further information can be obtained by emailing <a href="mailto:subs@ibms.org">subs@ibms.org</a>.

All BSc graduates are eligible to join the IBMS as a Licentiate member.

Individuals awarded a Masters degree accredited by the Institute are eligible for the title of Chartered Scientist and the designation CSci if they meet the other eligibility criteria of corporate membership and active engagement in CPD.

A Masters level qualification will also give eligibility to apply for entry into the membership grade of Member and designation MIBMS for individuals who are not already members of the Institute.

#### APPENDIX 2: RESEARCH/CAPSTONE PROJECTS

Below is a list of acceptable formats for research projects for IBMS accredited MSc programmes, if the student chooses not to complete a laboratory-based project to collect data. These capstone experiences are adapted from the "Choosing your Bioscience Final Year research, Honours or Capstone Project" guide for students.

Available at: <a href="https://bit.ly/ChoosingBioCapstone">https://bit.ly/ChoosingBioCapstone</a>

#### **Big Data and Bioinformatics**

BRIEF DESCRIPTION: The aim of these capstones is for you to use existing very large datasets or other sources of information to address research questions relevant to your degree or discipline using bioinformatics, data mining, analysis and visualisation, or similar tools and approaches. These sources of data/information could include large publicly available datasets or information sources or historical data from research groups within your School or Department

KEY SKILLS DEVELOPED: Research skills, experimental design, data mining, analysis and visualisation, numerical and analytical skills, use of large datasets, digital tools and technological skills, critical thinking, planning and organisational skills.

IDEAL FOR: Careers involving the handling, analysis and interpretation of large datasets/information, may be scientific research but could be in other areas e.g., artificial intelligence, policy development, sales and marketing, business development or consultancy. Careers involving the storyboarding or dissemination of information, or the use of digital tools and technologies.

#### **Computer modelling or simulations**

BRIEF DESCRIPTION: The aim of these capstones is gain research experience investigating the physiological, pharmacological or biochemical modulation of established models or simulations of body systems, organs or tissues (e.g., intact animals, heart, neurones). For models or simulations used in student education, it could include an evaluation of the scientific accuracy, validity and educational benefits of these.

KEY SKILLS DEVELOPED: Research skills, use of computer models and programmes, analytical and numerical skills, experimental design, independent and team-working, planning and organisational skills.

IDEAL FOR: Careers in scientific or medical research, or education. Careers involving the use of digital tools and technologies. Careers where knowledge or experience of the research process is required e.g., clinical trials, regulatory affairs, academic medicine, scientific writing.

#### Systematic Review with quantitative data-analysis

BRIEF DESCRIPTION: Systematic reviews are a highly systematic, pre-defined way of undertaking a critical review of the literature or other information. They are used extensively in clinical trials/health care research, and increasingly in other fields. In research, systematic reviews are normally undertaken by a team and therefore they make an ideal team-based capstone, more representative of the real-world. The data analysis aspect of a systematic review may entail formal meta-analysis techniques.

KEY SKILLS DEVELOPED: Research skills, qualitative & quantitative research methods, large datasets, ICT skills, numerical and analytical skills, planning and organisation, team working, leadership.

IDEAL FOR: Careers involving the collation, critical (including numerical or meta) analysis and reporting of large datasets/information (e.g., marketing, business, industry, government) or careers where systematic reviews are used extensively (e.g. clinical trials/health care, policy, social sciences). Careers involving significant scientific, technical or other prescribed formats of writing.

#### **Qualitative Research**

BRIEF DESCRIPTION: Qualitative research focuses on in-depth analysis of non-quantitative data. It is used to answer many types of research questions for which quantitative approaches would be inappropriate and contributes to knowledge-generation across a range of medically related fields. Qualitative research classifies data into patterns and themes to arrange and conclude results and does not usually employ statistical tools.

Examples include: semi-structured interviews (e.g., of patients or healthcare professionals); structured reviews of internet content (e.g. services offered by stem cell clinics); systematic reviews that explore qualitative themes (e.g. patient or service-user motivations and perspectives); ethical analyses of issues in biomedicine (e.g. ethics of sperm donation or organ transplantation); and systematic reviews of primary qualitative studies.

(Note that 'literature reviews' are not appropriate as projects – qualitative projects must involve the generation of new knowledge.)

KEY SKILLS DEVELOPED: Research skills, qualitative study design, thematic analysis, conceptual analysis, classification/taxonomy construction, theoretical discourse, reflexivity, planning and organisation, team working, leadership.

IDEAL FOR: Careers involving the collation, critical analysis and reporting of qualitative data (e.g., health policy, social science applied to medicine and healthcare, market research); careers where obtaining and analysing views from stakeholders is central (e.g. mediation, patient representation, government); careers involving dealing with philosophical arguments and debates (e.g. public health, medical ethics, civil service).

#### **Educational Development**

BRIEF DESCRIPTION: The aim of Educational Development capstones is for you to create new, or re-purpose existing, educational resources or activities for use in your Schools /Departments undergraduate programmes. It includes evaluation of need and/or the effectiveness of the developed resource or activity. It is NOT a research capstone evaluating educational methodologies/theories or using them as "human participants" in a scientific study. Instead, its principal output is an educational resource.

KEY SKILLS DEVELOPED: Communication skills, creativity, use of initiative, planning and organisational skills, independent working, educational awareness, digital and technological skills

IDEAL FOR: Careers in education, training or professional development, or in the development of educational resources or activities. Careers that require excellent communication skills or involve taking complex information and making it accessible to different audiences (e.g., public)

#### Team and Multi-team based

BRIEF DESCRIPTION: In the workplace (including scientific research), outputs are usually not the work of a single individual but a team. Graduate employers require employees who are team-players, have significant experience of team-working (on large projects) and though it,

have developed leadership skills. Team-based capstones are a much better representation of the workplace than individual capstones, and an ideal opportunity to develop these key skills and graduate attributes. Taking this one stage further, any team comprises of individuals with widely differing knowledge, expertise and skill sets i.e. sub-teams within a team, all contributing to a common goal or output. In research, you will have different research groups collaborating on the same research question e.g. at the molecular, cellular and systems levels. Therefore, we should replicate this in multiteam based capstones, either in research or combining teams undertaking different formats of capstone (e.g. research, stakeholder opinion & public engagement) to collaborate on the same enquiry-based activity.

KEY SKILLS DEVELOPED: Team working, leadership, planning and organisation, emotional intelligence, skills gained via your individual capstone format.

IDEAL FOR: Any careers that involve team-working or leadership roles.

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# APPENDIX 3: EDUCATION PROVIDER EVIDENCE

1		
	Programme Management and Resources	Suggested evidence
1.1	There should be a clear rationale for delivering the degree programme that demonstrates the programme is sustainable, fit for purpose and effectively managed.	Context statement in the context statement document that includes the background to the programme, relevance to sector, USP, institutional context etc. Student performance and feedback should also be reflected on.
1.2	The degree award title, fallback awards plus exit awards should be clearly articulated. Exit awards should not be called Biomedical Science	All programme titles must be defined in the Programme Specification and Programme Handbook
1.3	The programme specification and programme handbook must highlight the distinct features of the MSc programme(s), including information on the IBMS, HCPC and clarification on the routes to registration as a biomedical scientist	List of module codes and titles with credits, weighting, whether core/optional, co/pre-requisites etc.  The role of the IBMS and HCPC in the training and statutory registration of biomedical scientists should be clearly explained.
1.4	The programme must be taught in English	Programme Specification and Programme Handbook
1.5	Students must be capable of meeting the HCPC language requirements at the point of graduation. Universities admitting students from outside the UK will be expected to provide details of how this is confirmed.	Programme Specification and Programme Handbook

1.6	The admissions process must give both the applicant and the education provider the information they require to make an informed choice about whether to take up, or make an offer, of a place on a programme.	Marketing material, admissions criteria, admissions/progression criteria, Programme Handbook
1.7	There must be clear policies and procedures for assessing students by Accreditation of Prior Learning (APL) or Recognition of Prior Learning (RPL) to ensure they have previously studied the correct curriculum and are able to meet all the learning outcomes in the programme.	
1.8	The education provider must ensure that they adhere to equality diversity and inclusion policies in relation to applicants.	Programme Handbook and / or links to institutional policies
1.9	There must be an adequate number of appropriately qualified and experienced staff employed by the education provider to deliver an effective programme.	- Academic staff and visiting lecturer CVs (including registered biomedical
1.10	Staff CVs must clearly show that suitably qualified and experienced academic staff and biomedical scientists (including visiting lecturers) deliver the taught content of the programme.	scientists)
1.11	Staff development opportunities that support on-going research and scholarly activity of the programme teaching team (academic staff and visiting lecturers) must be clearly evidenced.	Context statement document with links to the institutional polices on staff development.

1.12	The education provider must evidence a clear strategy to provide adequate physical resources (e.g. teaching spaces and laboratories) to sustain programme delivery and expansion.	Context statement document context statement should clearly describe the physical resources available to staff and students from the programme(s)
1.13	There must be a named liaison contact for the IBMS accredited MSc programme(s), through whom the IBMS can disseminate IBMS information and request annual monitoring information.	

2		
	Module Content and Organisation	Suggested evidence
2.1	The contents of any clinical specialism modules must cover advanced topics that align with and build on the undergraduate content from the QAA Subject Benchmark Statement for Biomedical Science and Biomedical Sciences (2023).	Module descriptors and IBMS Module Content mapping template
2.2	The course content must include point of care testing, quality assurance, clinical application of investigative techniques, clinical governance and relevant leadership and management skills in biomedical science.	Module descriptors and IBMS Module Content mapping template
2.3	Undergraduate content must comprise less than 25% of the Masters programme. If undergraduate content is included, it must be from FHEQ level 6 or SCQF level 10 and be assessed using appropriate M-level learning outcomes and assessment types.	Module Descriptors, Programme Specification and Programme Handbook

2.4	The module descriptors/specifications must be clear, indicating appropriate delivery methods (lectures, practicals, tutorials, flexible learning), the number of credits, plus clear information on Masters-level learning outcomes and assessment methods.	Module descriptors
2.5	The extent of mixed-mode (online/hybrid) delivery and its relationship to module learning and assessment strategy must be detailed.	Programme Specification and Programme Handbook
2.6	The IBMS practical and transferrable skills mapping template must be completed to show how these skills are developed by students through the programme.	IBMS Skills Mapping Template (excel spreadsheet)
2.7	The organisation, allocation and supervision arrangements for the research project module, plus information on supporting taught content and skill development must be clearly documented.	Research Project module descriptor and Module Handbook
2.8	Example research project titles should be provided and details of the type of projects offered that meet IBMS requirements (Appendix 2)	Research Project module descriptor and Module Handbook
2.9	If the research project is completed in the workplace, the time allocated to complete the work, duration of data collection, FHEQ or SCQF level of the project and supervision must all be aligned with the capstone projects completed at the university.	Research Project Handbook

2.10	Reading lists and other resources for each module must be current and relevant.	Module Descriptors
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3	Assessment	Suggested evidence
3.1	Assessment methods must be clearly related to the aims and objectives of the overall programme and link to specific learning outcomes and module content at Master's level.	Mapping of the assessments to the programme learning outcomes, plus stated module learning outcomes in Module Descriptors
3.2	Assessment methods must be varied, authentic and inclusive.	IBMS MSc Assessment Mapping template (excel spreadsheet) to indicate the type of assessment, whether it is formative or summative and which week it is held.
3.3	Assessments must provide an objective, fair and reliable measure of learners' progression and achievement.	Programme Handbook and External Examiner Reports
3.4	The IBMS assessment mapping template must be completed, to ensure a clear and logical assessment strategy with no undue clustering of assessment or marking.	IBMS MSc Assessment Mapping template (excel spreadsheet)

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3.5	The use of formal, closed book assessments must be evidenced during the programme. These must be clearly described and explained in the documentation, together with the education provider's policy on assessment.	Programme Specification, Programme Handbook and Module Descriptors
3.6	The use of any Gen AI tools (for example ChatGPT) in any modules and / or assessments must be clearly articulated, along with the institutional policies on the permitted use of GenAI and any penalties for inappropriate use	Programme Specification, Programme Handbook and Module Descriptors
3.7	Assessment policies must clearly specify requirements for progression and achievement within the programme, including the number of attempts permitted.	Programme Specification, Programme Handbook or links to online policies
3.8	There must be an effective process in place for learners to make academic appeals.	Programme Specification, Programme Handbook or links to online policies
3.9	Condonement/compensation is not permitted for any module(s) where the learning outcome(s) cannot be met elsewhere in the programme.	Programme Specification, Programme Handbook or links to online policies
3.10	The research project module must be 60 credits of the total 180 credits for the MSc programme and a pass mark of 50% must be achieved.	Programme Specification, Programme Handbook, Research Project Module Descriptor and Research Project Handbook

4	Programme evaluation, curriculum development and quality assurance	Suggested evidence
4.1	Monitoring mechanisms must be in place to confirm a student's understanding of institutional policies and procedures.	Programme Handbook
4.2	Student feedback, responses to feedback and action plans should be clearly documented. This should include module evaluation and Postgraduate Taught Experience Survey (PTES) data for UK programmes, or equivalent student feedback for international education providers	Module evaluations and PTES data for each year of the previous accreditation period plus action plans, or institutional programme annual monitoring reports if this is covered in the report
4.3	A Staff/Student Liaison Committee (or equivalent) must meet regularly to inform the ongoing design, development, delivery and content of the programme.	Staff Student Liaison Committee minutes for each year of the previous accreditation period
4.4	An Employer Liaison Group / Committee (comprising employers, practitioners and ideally service users) must meet regularly to inform the design and delivery of the programme.	Employer Liaison Group meeting minutes and associated action logs
4.5	Internal annual monitoring reports (AMRs) and/or similar quality assurance documents must evidence regular and effective monitoring, evaluation and clear action-planning.	Institutional annual monitoring reports for the programme for each year of the previous accreditation period.
4.6	External examiners must be appropriately qualified and experienced and from another IBMS-accredited programme	Named external examiner in the Programme Handbook

External examiner reports, responses and action plans for the programme(s) from the previous five year period must be provided to demonstrate quality assurance and enhancement processes

External Examiner reports for each year of the previous accreditation period plus action plans

# APPENDIX 4. INFORMATION ON HCPC REGISTRATION AND IBMS TOP-UP MODULES

The Institute suggest the following wording to be used in Masters (MSc) programme documentation for programmes in the UK: Completion of an IBMS accredited MSc programme in Biomedical Science, will not generally meet the academic requirements for HCPC registration. If you do not already hold an IBMS accredited undergraduate (BSc (Hons)) degree and wish to become registered as a Biomedical Scientist with the HCPC you should first submit your degree to the IBMS who will, for a fee, assess the content of that degree and provide an indication of what supplementary education you would need to undertake to meet the academic requirements for HCPC registration. Details of the non-accredited degree assessment process can be found at <a href="https://www.ibms.org/registration/degree assessment-for-hcpc-registration/">https://www.ibms.org/registration/degree assessment-for-hcpc-registration/</a>

#### Top-up modules:

Following an IBMS non-accredited degree assessment, graduates are required to undertake the supplementary education identified through a university delivering an IBMS Accredited BSc (Hons) Biomedical Science programme. The topic areas required will have been identified by an IBMS non-accredited degree assessor and the graduate will agree with the Programme Leader or Admissions Tutor for the IBMS Accredited BSc (Hons) Biomedical Science programme which module combination will cover all aspects of their supplementary education. They will usually enrol as an associate student and complete only the required top-up modules and receive a letter of completion (including grades achieved) to provide to the Institute. Unless a full degree programme is recommended in their non-accredited degree assessment outcome, the top-up students will not be studying a full course, or for a named award.

**Please Note**: Top-up modules offered must align with existing BSc (Hons) programme modules with respect to taught content and practical skill development. The organisation and delivery of practical skills and closed book invigilated assessments must be clearly articulated. If this differs in top-up modules compared with the existing BSc (Hons) Biomedical Science modules, the programme team must demonstrate how the top-up modules meet the IBMS BSc accreditation criteria on assessment.

Top-up modules are aligned with FHEQ levels 4-6 or SCQF levels 8-10 and are not postgraduate level. Top-up modules should not be offered as Masters level qualifications.

In the event that a student has completed both a BSc (Hons) and MSc programme prior to requesting an IBMS non-accredited degree assessment, the assessor will consider content covered in both their previous BSc qualification plus the completed MSc programme to determine if there are still any areas of supplementary education to complete to meet the HCPC Standards of Education and Training and the QAA subject benchmark statement for Biomedical Science and Biomedical Sciences (2023) that are required for eligibility to register as a biomedical scientist with the HCPC.

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Contact:	Education Department
	T: +44 (0)20 7713 0214

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E: education@ibms.org

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