

How to become a biomedical scientist

[Science](#)



If you are to work in an NHS laboratory as a Biomedical Scientist, indeed, if you are to call yourself a Biomedical Scientist, you will need to be registered with the Health Professions Council (HPC). The HPC was set up by the government to protect the public and regulates a series of health-related professions including Biomedical Science.

The Institute of Biomedical Science (IBMS) is the professional body for biomedical scientists in the United Kingdom. It aims to promote and develop the role of biomedical science within healthcare to deliver the best possible service for patient care and safety. The IBMS is the awarding body for the IBMS Certificate of Competence Registration Portfolio.

In addition to completing the IBMS Certificate of Competence Registration Portfolio, in order to be eligible for registration with the HPC, you also need to graduate with an Honours degree in Biomedical Science- attaining these qualifications indicates that you possess the appropriate training, professional skills and understand and can demonstrate the general principles of conduct appropriate to a Biomedical Scientist.

The IBMS Registration Portfolio.

You will need to successfully complete the IBMS Certificate of Competence Registration Portfolio to demonstrate that you have met the competency required of the HPC standards of proficiency, and that you are ' fit to practice' as a Biomedical Scientist.

There are various routes that you can take to complete the Certificate of Competence: you can apply for a BMS placement and work in an NHS laboratory between your second and final years at Aston, completing the <https://assignbuster.com/how-to-become-a-biomedical-scientist/>

Registration Portfolio as part of the placement or you can graduate in 3 years with your Honours degree and apply for Training positions in a BMS laboratory, where you would complete the Registration Portfolio whilst employed.

You should be aware that the availability of BMS placements is very limited and that they are allocated in competition. Factors which could influence your success are your year one marks, your CV and your performance at placement interview. You will have to undergo an enhanced criminal records bureau (CRB) check and a conviction could prevent your selection. You will also need evidence that you have had all standard UK vaccinations, and you'll need immunisation against Hepatitis type B. If you do not have GCSE English at grade C or above, you will need an IELTS score of 7.0 or above to be eligible for a BMS placement.

The mini-portfolio

Some of the assignments that you complete during the course of your degree will demonstrate your competency at the required standards of proficiency and can be used as evidence. The purpose of this mini-portfolio tutorial assignment is to familiarise you with the HPC standards of proficiency and allow you to begin to gather the evidence that you need to complete the Registration Portfolio.

The HPC standards of proficiency are separated into three sections and the purpose of this mini portfolio tutorial assignment is to collect evidence for Section 1 – entitled Expectations of a Health Professional. These standards essentially refer to behaviour and professional conduct of a registered

practitioner in a multi-professional environment. They cover the areas of communication, confidentiality, team working, fitness to practice and the legal and ethical frameworks within which healthcare professionals operate.

In completing the mini-portfolio, you will not completely fulfill all the requirements of Section 1, but this mini-portfolio does allow you to make a start on collecting your evidence and to become familiar with what is required of the IBMS Registration Portfolio.

You can look at a draft copy of the entire Registration Portfolio in the Blackboard site that accompanies this module (2009-10 BY1KS1) Biomedical Key Skills. You'll see that many of the competencies that you need to demonstrate are practical skills that you can only achieve in a BMS laboratory. The mini-portfolio is not intended to allow you to complete the Registration Portfolio; it is an introductory exercise that will allow you to start collecting your evidence.

How to complete the mini-portfolio

To complete the exercises in this portfolio, you will need to read various documents (many of which are available on Blackboard for you) and look at the relevant websites. You then need to use this information to answer the questions in your own words. The portfolio is to be submitted via Blackboard so it will be assessed for plagiarism using Turnitin software. It is therefore vitally important that you DO NOT cut and paste any material from web pages, as Turnitin will detect this as plagiarism and you will fail this exercise.

There are no fixed word limits for the different exercises, sometimes you may need to add an extra page to answer the question fully and sometimes <https://assignbuster.com/how-to-become-a-biomedical-scientist/>

you may be able to complete an exercise within the limits of the box provided.

Reflective Practice.

As part of the IBMS Certificate of Competence Registration Portfolio, you are required to complete Reflective logs. These exercises allow you to interpret your experiences, evaluate your responses and apply what you have learnt to new situations. Reflective practice allows you to identify your strengths and weaknesses and is a very important skill for biomedical scientists. You will find that reflection is a useful tool, both during your training to be a BMS and for your continuing professional development (CPD) as a Biomedical Scientist. You might find that you are already a reflective person- you may go over the events of the day during your journey home and think of how you would do things differently if a situation arose again, or you may mull over a recent lecture and how it has increased your understanding of a particular topic- these are examples of reflection.

To develop your skills as a reflective practitioner, the last exercise in this mini-portfolio asks you to reflect on your development as a result of completing this tutorial assignment. You might want to think of what you knew about BMS before you started this assignment and reflect on how your knowledge of the profession has increased (hopefully it has increased!), you may also want to consider which parts of the assignment went well and you are happy with and which parts you are not confident about and feel you need some guidance or feedback. Finally, you could consider whether finishing this mini-portfolio has changed your attitude or feelings towards being a BMS.

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Supporting documentation

You will need to consult various sources of information before completing this mini portfolio; such as the draft copy of the IBMS Registration portfolio, the IBMS guidelines for good laboratory practice, the HPC standards of Proficiency and their Standards of Conduct, Performance and Ethics and the relevant web pages for the HPC and IBMS.

These (and some other useful documents) can all be found in Blackboard by going to (2009-10 BY1KS1) Biomedical Key Skills and clicking on Module Content and then on Mini-portfolio assignment.

Conclusion

Finally, we appreciate that some of you may not have the career goal of becoming professional biomedical scientists working in the Health Service. However, we feel that you will find that an appreciation of reflective practice and an understanding of how regulatory and professional bodies operate, are important generic information that will be useful to you whatever career path you undertake.

I hope that you value completing this exercise which is mandatory for you to pass the Year one Key skills module in Biomedical Science.

Dr Lindsay Marshall

Explain (in your own words) the role of the Health Professions Council and the requirements for registration.

The role of the Health Professional Council (HPC) is to regulate health professionals, to protect and safeguard the health and wellbeing of the

general public. The HPC regulates 15 health professionals, this includes Biomedical Scientists. It does this by having a register of properly qualified members of the health profession available to the public. For a person to use the professional title of ' Biomedical Scientist' they have to be registered with the HPC. It is a criminal offence for someone to use this protected title without first being registered with the HPC; it is also illegal for anyone to claim they are registered with the HPC when they are not, and the HPC have the right to prosecute people who commit these crimes.

The HPC also has a set of guidelines on what should be taught to students, it instils its high standards of education, training, performance and conduct. It also develops policy and standards for Health professionals. If a health professional does not meet the standards set by the HPC, then the HPC can take appropriate action against that person, which can ultimately lead to them being struck off and being unable to practice.

Another role of the HPC is to investigate complaints by the general public regarding certain health professionals and to take appropriate action. It also promotes awareness of the aims of the council.

The HPC also has many other roles, such as performing spot inspections of health professionals to make sure they meet the standards, provide and co-ordinate ongoing training for health professionals and serve as a public face for health professionals as a whole.

To register with the HPC there are certain requirements which are required. In the instance of becoming a ' Biomedical Scientist' firstly you must graduate with an honours degree in biomedical science from a university
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which has been accredited by the Institute of Biomedical Science (IBMS) and approved by the HPC. Then either by taking a placement year in a laboratory or gaining employment as a trainee biomedical scientist with the NHS, you are required to complete a portfolio which evidences competence in specific tasks in the laboratory. After the completion of the portfolio they are awarded a certificate of competence by the IBMS to show that they have met the HPC standards of proficiency. This is required to support an application to register for the register in order to practice as a biomedical scientist.

What is CPA (UK) Ltd?

CPA (UK) stands for 'Clinical Pathology Accreditation UK'. CPA is an organisation responsible for accreditation of medical laboratories and External Quality Assessment (EQA) schemes in the UK. It is a branch of United Kingdom Accreditation Services (UKAS). The company has a set of defined standards of practice, which is confirmed by peer reviews. The company provides a team of assessors to travel to clinical laboratories and externally audit the laboratories to assess whether they provide the high standards of practices which is defined by CPA. If a laboratory does not then they receive recommendations on how to improve. If a laboratory succeeds then it gains accreditation to show that it meets these high standards, and can provide a high level of service to its customers.

What is the purpose of laboratory accreditation?

Laboratory accreditation shows the consumer that the laboratory is reliable as it has been scrutinised under the strictest standards, and then when successful been given the accreditation.

Accreditation provided confidence in the quality of goods provided as it means that the laboratory can show to its customer that it has been successful at meeting the requirements of international accreditation standards.

It means that selection of a laboratory to test something of yours is no longer a gamble but an informed choice as you know that they have been through the strictest standards. This reduces the risk of selecting a dud evaluator and paying for a test that may be useless or could lead to a fault in the future, thus to save the hassle go to a lab that has been accredited!

Explain what is meant by ‘ equal opportunities’.

Equal opportunities refer to the concept that an individual should not be discriminated against on the grounds of their race, colour, ethnicity, age, religious beliefs or sexual orientation. At times this concept extends to include an individual's disability/medical history and criminal history.

To be certain of the provision of equal opportunities such discrimination should not occur in professional and academic environments.

Equal opportunity in the work environment is extremely encouraging, especially in the eyes of the law. It is a criminal act to hire, promote, pay or dismiss anyone on the grounds of the above.

As a result equality of opportunity is closely aligned with the concept of equality in law. However certain occupations are able to “ discriminate” against some individuals due to their criminal history (for example the

teaching profession) or medical disabilities (for example certain sporting professions).

Although usually referred to in the work place, equal opportunities also apply in the education system, judicial systems and charitable activities.

Overall, in the work place the concept of equal opportunities means that every individual with a certain level of skill should have a same opportunity to work and pay as presented to another individual with the same level of skill, regardless of their personal attributes listed above. However this is a limited definition. Beyond the work place into education, the welfare system and the judicial system equal opportunity means the right by law of every individual to the same opportunities as those that would be presented to others in their place regardless of the aspects listed above.

Describe the extent to which the Data Protection Act (1998), and other legislation and professional guidance, covers patients' and laboratory records.

The main point in which the Data Protection Act (1988) and other legislation and professional guidance protect patients' and laboratory record is with a strict code of confidentiality. All personnel in the health service are bound by this confidentiality rule. This emphasises that no personal data from a patient should be recognisable. It even applies to simple examples such as if you are on a bus with a colleague you still should not discuss any patients in case anybody overhears.

In the code of conduct it states: Treat with discretion all confidential and other information requiring protection and avoid disclosing to any

unauthorized person the result of any investigation or other information of a personal or confidential nature gained.

This clearly states that no unauthorized person, so even if it a partner of the patient and the patient does not authorize it, then we are bound by the code. Another example is if a patient's friend comes to collect lab results you are unable to give it to them again due to confidentiality.

There are many protocols in place to keep sensitive information only available to the staff that require it. This is done by the IT system which is password regulated as well as identification cards, with inbuilt microchips to allow access.

There is a whole disciplinary procedure in place and there are severe consequences if this rule is broken, and can lead to severe punishment and ultimately dismissal.

Describe the purpose of a professional code of conduct.

A code of professional conduct is a document that outlines ethical standards that govern the profession.

The code of conduct for the biomedical science profession is governed by the Institute of Biomedical Science and the Health Professional Council. Failure to apply the code can lead to dis-accreditation, fines and in severe cases, imprisonment.

The code does not provide a set of strict rules but provides guidance that allows individual biomedical scientist to practice a degree of flexibility and

apply the code to every unique situations and make an informed decision. Therefore the code of conduct promotes self regulation.

The main purpose of the code of conduct is to ensure compliance with legal requirements. This includes safe and legal practice, data protection and professional due care.

As biomedical scientists provide services to patients, their work is in the public interest. A code of conduct increases the credibility of the profession in the public's eyes. This is due to the fact that the code provides regulation of the profession. As a result the work completed by an accredited biomedical scientist (who is bound by the code) is viewed as more accurate and reliable.

The code of conduct also promotes integrity in the profession which increases patient confidence.

Since the code of conduct is a form of regulation (which if breached results in penalties), the code reduces the chance of malpractice and further increases the credibility of the biomedical profession.

What is the purpose of the European Working Time Directive?

The purpose of the European Working Time Directive is to lay down law regarding the minimum health and safety requirements of working time for an employee, to protect the wellbeing of the employee. The Working Time Directive sets a limit to the number of hours worked each week by an

employee to 48 hours, and entitles workers to a minimum 20 minute rest break if worked more than 6 hours during the working day.

The Working Time Directive stipulates daily and weekly rest periods thus workers are entitles to a daily consecutive rest period of 11 hours, and a minimum rest period of 24 hours in a 7 day week (or 48 hours in 14 days)

The Working Time Directive also covers aspects of night work and shift work. It stipulates that a night worker can work a maximum of 8 hours in any 24 hour period in a stressful job.

Finally the Working Time Directive also states that each employee is entitled to a 4 week paid annual leave.

The Working Time Directive overall makes sure that employees are rested enough for them to efficiently carry out their duties without risking their health and safety. In the long run this therefore leads to better care for the customer/patient.

Portfolio Reflective Log.

Describe how the portfolio that you have completed has contributed to your knowledge and understanding of a career in biomedical science.

I feel that this log has contributed to my knowledge and understanding of a career in biomedical science. It has taught me the strict importance of confidentiality and the severe consequences if this is disobeyed as well as made me understand the need for a code of conduct, furthermore I found the accreditation system very interesting as i had never heard of this before.

This law has also enlightened me on the basic right of a biomedical scientist in the sense of the European working time directive, and I'm sure this will be very useful in the future.

I guess the main way in which this portfolio has contributed to my knowledge and understanding of a career in biomedical science is by making me understand the role of the governing bodies, HPC and IBMS and the way in which registration is necessary to use the title ' Biomedical Scientist'.

Finally this portfolio as a whole has taught me that being a biomedical scientist has great responsibilities and a great trust from the general public, and that I am responsible to everyone, the public, other staff as well as to myself.