NHS England South West

Biomedical Scientist

AN INTERACTIVE CAREERS PATHWAY GUIDE

FOR STUDENTS, TEACHERS, LECTURERS, PARENTS, BIOMEDICAL SCIENTISTS AND MANAGERS

NHSE South West Diagnostics Team

(Version 2 valid from Sept 2023 – Aug 2024)

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Welcome to the Biomedical Scientist Interactive Careers Pathway Guide. This is an interactive careers and information package created by the **South West Regional NHS Diagnostics Team**, to explain what a **Biomedical Scientist (BMS)** does, why you might want to be one and how to become a Biomedical Scientist.

The guide highlights the wide variety of disciplines in this field and the array of different opportunities available to you, by choosing an exciting career in Biomedical Science.

And if you already are a Biomedical Scientist, then this pack will give you insight into all the potential options available to you for career progression and how to take the next steps in your BMS journey.

It is designed to promote the role of a Biomedical Scientist and advise schools, students, graduates, managers and employed staff about the various career options available, what to study, training opportunities, recruitment, retention and progression in Biomedical Science careers and how to access them.

This information pack is also useful for staff returning to practice, ex-forces, parents of potential students and any other persons interested in a fulfilling career in **Biomedical Science (BMS)**.

Information for **schools, colleges and students** on what Biomedical Science is, what exams and qualifications are required, where to study plus career opportunities

Information for **post graduate students** on career pathways and progression routes in the NHS

Information for **existing staff** on other options in leadership, clinical and management roles in the NHS

Information for **managers** on use of apprenticeship Levy and benefits to service, staff retention initiatives and return to practice advice

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You can work your way through this guide from start to finish, as you would any other document. It is designed to be read chronologically. Alternatively, you can navigate though the pack using the links to each section, either at the top of each page, or the identified links and/or buttons on a page

1) To navigate this document, you can click on the headings at the top of every page to jump to a new section.

2) Within each section are subsections you can also click on to navigate through. These can only be accessed within the relevant main section.

3) In the top left corner of every page, the button allows you to always navigate directly **back to the contents page**, just by clicking on it.

4) In the bottom right of most pages you will find an indication of what section/page is coming next (you can click here or scroll through as usual).

5) On some pages you will find buttons or links that will take you to relevant and useful external sources – websites, videos, etc. If you do visit an external site, don't forget to return here to continue with your journey into and through a **Biomedical Scientist** career.

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CONTENTS

WHAT IS A BMS

What is a Biomedical Scientist (BMS)?

So, the first question you are probably asking yourself is – "*what is a Biomedical Scientist?*" Well, In this section you will find out.

You will find some links to the **Step Into The NHS** website, that has many useful resources to help you discover what a **Biomedical Scientist** is and what working as a Biomedical Scientist in a hospital is like.

You will get to experience 'a day in the life' of a Biomedical Scientist and you can watch some videos from YouTube about a career in pathology or the journey a blood sample takes, for example… as this is all part of working as a Biomedical Scientist.

After reading the following pages, if you think a career as a BMS sounds interesting, then do continue reading on, to find out how you could become one. Throughout the guide we will use the term BMS and the full role title Biomedical Scientist interchangeably. But they are the same thing.

(don't forget to click on the apprenticeship arcade though. It's lots of fun!)

What is a Biomedical Scientist (BMS)?

Click here to visit **stepintothenhs.nhs.uk** and find out about more than 350 careers in the NHS

STEP INTO THE NHS

Schools

There you'll find **resources** for students and teachers to discover more about NHS careers, as well as an **exciting competition**

Take the test

And if when you **take the test** it suggests being a Biomedical Scientist, then read on more information:

Biomedical Scientist

Don't forget to enjoy the **Activities for Children**, or to dive into the **Apprenticeship Arcade** too

Activities for Children

Apprenticeship Arcade

A Day in the Life of a Biomedical Scientist

You work in the laboratory at your local NHS hospital. Today you are on the Thursday day shift and it is 8am.
Once you have 'gowned-up' in a lab coat and gloves, you are ready to start the day. A quick check of the communication diary and off you go.

The analyser is beeping and needs attention. As a Biomedical Scientist, you problem solve the issue and perform some maintenance before collecting the quality control solutions from the fridge. An urgent sample from a critically ill patient arrives, so you label it and spin it in the centrifuge, whilst a colleague enters the details on the computer system. Time to put it on the analyser and await the result. Meanwhile you continue to set up the first analyser. Confirm the quality control has passed and get the other patient blood samples on to the analyser.

Your urgent result is available and must be authorised and rung through to the doctor who can now act on this result to care for their patient. Suddenly the phone rings and a nurse informs you there has been a road traffic accident and that they will be sending more urgent samples. The rest of the day is going to be busy!

70% of medical decisions require results from the pathology laboratory. **Biomedical Scientists are life savers.**

Does this sound like you?

You're responsible, mature and are an effective communicator of complex information. You enjoy science, working in laboratories, teamwork and are able to concentrate on the detailed tasks involved in testing patient samples.

Biomedical scientists can specialise in blood sciences, cell sciences, infection sciences or genomics.

Become a Biomedical Scientist…

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LIFE AS A HEALTHCARE SCIENTIST

PATHOLOGY CAREERS

THE BLOOD SAMPLE JOURNEY

A DAY IN THE LIFE

These four videos offer an interesting insight into life as a Healthcare Scientist and Biomedical Scientist. The job is incredibly varied, and these videos can't capture it all, but give a sneak peek into some of what you could expect with this valuable and intriguing career. Click on each of the links to open up the resources and see some of the exciting things you could expect to do.

What Are the Pathways to Study Biomedical Science?

To become a Biomedical Scientist there are **two main pathways**:- either by following an **academic route** through a university offering a relevant course*; or by completing an **apprenticeship**, which is more 'hands-on' (*both discussed later*).

Neither route is better than the other, so choose the path that is best for you, based on what you enjoy most and how best you learn. Once you start your career as a Biomedical Scientist, the opportunities ahead of you will all be the same, regardless of whether you completed a degree or took an apprenticeship. To help you decide, page 10 looks at the pros and cons of academia versus apprenticeships, followed by some examples of what to expect as an apprentice or at university.

Although these are the two main routes, there are a variety of paths along these routes you can take. See the **ROUTE TO BECOMING A BMS** section for further information about the different levels of apprenticeships available or the university routes you can take.

In the **MORE INFO** section, you will find details of where you can actually study; and who to contact to find out more about university courses or apprenticeships.

All routes to becoming a Biomedical Scientist start with completing your GCSEs…

*The course must be IBMS Accredited

WHAT ARE THE PATHWAYS TO STUDY

What Are the Pathways to Study Biomedical Science?

For most IBMS **accredited degree biomedical science** programmes in the UK, applicants will need grade 4 or above in GCSE English, maths, and double-award science. Most IBMS accredited biomedical science degree courses do not ask for triple award GCSE science.

For A levels, the **minimum requirements** are likely to be grade B in biology and at least C in chemistry plus another subject. It is important that applicants check the admissions criteria for their chosen IBMS accredited biomedical science course, as some require A level chemistry, and some do not and the UCAS points required may differ.

For **Scottish Highers** the **standard entry requirement** is BBBB in two science subjects (such as biology/human biology, chemistry, health and food technology, physics, maths, psychology) and one essay-based subject such as English, history or modern studies plus National 5 biology or human biology, maths, English and chemistry at B

Some IBMS accredited biomedical science courses also accept **BTEC qualifications** for admission. The level 3 BTEC Extended Diploma in Applied Science is the only programme which really encompasses the required depth and breadth in the relevant subject areas within one award title. In addition to the mandatory units, we suggest that any three units from option block A are appropriate, especially unit: 20 – biomedical science. From option block B, units 14 (applications of organic chemistry) and 19 (practical chemical analysis); finally, unit 13 (applications of inorganic chemistry) from option block C.

BTEC health and social care qualifications focus more on community social care, and do not contain sufficient theoretical biology and/or chemistry to provide sufficient underpinning knowledge for biomedical science degree study.

Students offering a mixture of A levels and BTEC qualifications often fail to meet the breadth of biology and chemistry required to ensure full engagement with subjects included in a biomedical science programme.

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What Are the Differences Between Each Route to Becoming a BMS?

ACADEMIC ROUTE

Pros and Cons…

- Obtain industry recognised qualifications
- Lasts 3-4 years
- Academic study
- Limited opportunities to develop practical skills – industry placements for HCPC registration difficult to obtain
- Tuitions fees cost up to £9,250* per year unless follow Practitioner Training Programme degree
- Entitled to student loans
- Experience university life and holidays
- High earning potential

Vs

APPRENTICESHIP ROUTE

Pros and Cons…

- Obtain industry recognised qualifications
- Lasts 1-5 years
- On the job training and complete HCPC registration
- Opportunity to develop practical skills and experience
- Work directly with employers
- Paid salary with employee benefits
- No tuition fees – you finish your course without debt
- Limited number of apprenticeship places in pathology laboratories
- Won't experience University life
- Shorter holidays
- High earning potential

*Figures correct as at September 2023

FURTHER APPRENTICESHIP INFORMATION

Apprenticeship Programmes

With an apprenticeship programme you can work your way towards a degree all paid for by the Government Levy in a step-by-step process. You will need at least GSCE English and maths to be eligible for an Apprenticeship Level 3 or 4 if you do not have A Levels. Once you complete your level 3 or 4 apprenticeship, you can progress onto a Level 6 degree apprenticeship.

Apprenticeships appeal to those looking for alternatives to university as they take a more practical approach to learning. You'll focus on training for a specific career and learn your trade by actually doing the job. You'll gain hands-on experience and have the opportunity to apply your skills immediately. On completion, you may hold an NVQ, HNC or HND, while higher apprenticeships can lead to a foundation degree and degree apprenticeships can result in a full honours degree.

More information on apprenticeships can be found on the following links below:

Gov.uk
Become an Apprentice

How to become a **Healthcare Science Apprentice**

Institute for Apprenticeships

Levels of Apprenticeship

Apprenticeships have equivalent educational levels:

	Level	Equivalent Education Level
Intermediate	2	GCSE
Advanced	3	A Level
Higher	4, 5, 6 and 7	Foundation degree and above
Degree	6 and 7	Bachelor's or Master's degree

Some apprenticeships may also give you an additional qualification, such as a diploma.

Who can start an apprenticeship?

To start an apprenticeship, you'll need to be:

- 16 or over
- living in England
- not in full-time education

HEAR FROM AN APPRENTICE

Hear From an Apprentice

For more inspiration, the following are what recent apprentices have to say about their time completing an apprenticeship. And click on the buttons to the right to watch videos about apprenticeships.

'When I was 18, I chose not to go to university because I didn't know what I wanted to do, and I didn't want to leave Cornwall. After floating around for a few years with no real plan, I applied for a Medical Laboratory Support Worker job in Histopathology. At my interview, I asked about progression and was told there would be no progression in this role. I decided to take the job and threw myself into it. I really enjoyed working in the laboratory and could see myself progressing in this field.

2 years in, I was made aware of an Apprenticeship scheme that was being set up. This involved going to college one day a week, studying for a HND in Applied Biology, and completing a portfolio of work-based competence. The HND would allow access onto a part-time university course studying for a BSc in Biomedical Science. For me, it was a way to get a qualification in a topic I was passionate about, whilst working full-time, and staying in Cornwall. The apprenticeship gave me the study skills I needed to study at university level, as well as experience completing a portfolio.

I have finished my degree completed the IBMS registration portfolio to become a HCPC registered Biomedical Scientist. I am now employed as a Biomedical Scientist, something I never would've been able to do if I hadn't done the apprenticeship. The apprenticeship has given me a career path and the skills and knowledge I need to succeed'

Hear what inspired Leah, Harry, Lee and Hannah to become an Apprentice

Watch more about the role of a Biomedical Scientist on Apprenticeship

'Just to let you know I got my results this week and I got a first-class honours!! I can't even begin to describe how elated I am.....I'm on cloud nine!!! Thank you so much for giving me the opportunity to do the Apprenticeship - without your support, encouragement, and efforts in getting the Apprenticeship up and running none of this would have been possible. Hopefully, we have done you proud ☺

My registration portfolio completed and signed off, and now a Band 5 Biomedical Scientist'

'The apprenticeship has opened many doors for my intended career in biomedical science. I intend to work as a band 5 biomedical scientist and the apprenticeship combined with follow up biomedical science degree will allow me to achieve this once a post is open. The apprenticeship gave me the practical experience and anatomical knowledge that are vital for a career in the field.

The apprenticeship is specifically tailored to encompass learning whilst also working within the NHS, this has helped to allow the potential progression through any pathology discipline without worrying about full time learning'

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Degree Pathway

A degree is an academic qualification which students usually complete at university. A degree is classified as higher education and is generally completed after A-Levels (or equivalent). University degrees range from level 6 qualifications, such as a bachelor's degree, to a level 8 qualification such as a doctorate degree. Degrees can be taken in a range of different subjects. Universities will require you to have a pass in GCSE Maths and English as a minimum. Additionally, A-Level qualifications may be required, particularly for students beginning their first university degree.

Foundation

A foundation degree is a standalone vocational qualification. It takes 2 years full time, or 4 years part time to study. It is equivalent to two-thirds of a Batchelors degree, Higher National Diploma and Diploma of Higher Education.

5

Bachelors

Completed at university following A-Level study or a foundation degree. It is the most recognised and popular degree for students going to university after A-Levels.

A bachelor's degree can lead to three key routes: to a degree, to a certificate/diploma, or combining a work placement with academic study.

A Bachelor's degree studied full time usually takes 3 years, whilst part time takes 6 years of study. Some universities give students the option to study abroad for their second year, or to complete some work experience in their chosen work field.

6

Masters

It is often regarded to as postgraduate study, meaning students who have already completed a degree at university (often a bachelor's degree) and are now progressing towards a second university degree.
A master's degree typically takes 1-2 years with full time study or 2-4 years part time. Students encounter more intense and independent study which involves completing modules and writing a dissertation.

7

PhD / Doctorate

The length of a PhD is 3-4 years with full time study, or 6-7 years part time. The degree usually involves researching a specific topic area of interest and writing a dissertation.

8

How Much Does it Cost to Become a Biomedical Scientist?

Whether studying for a degree at university or performing an apprenticeship you will incur some costs. This will vary depending on where in the country you live / study, what route you choose to take and how long it will take you to qualify as a Biomedical Scientist. But as a rough guide, the following are what you can expect:

Degree/Trainee BMS

Studying for a degree will cost you £9,250* per year in tuition fees, plus additional living expenses. You'll undoubtedly leave university with student debt - however, you won't start repayments until you earn a minimum of £25,000* a year. (Starting salary for newly qualified BMS (Band 5) £28,407*)

Practitioner Training Programme Degree

The Practitioner Training Programme (PTP) is a dedicated three-year BSc Honours undergraduate training scheme that includes work-based and academic learning and all tuition fees are paid for those successfully gaining a place on these NHS funded courses. There are limited places for this degree.

Apprenticeships

If you're under 25 the government and your employer will fund your training, so you don't have to pay a penny **and** you earn a salary at least the same as minimum wage but often more.

*Figures correct as at September 2023

MORE INFORMATION

More Information on Becoming a Biomedical Scientist

In this section you will have learnt all about the exciting career of a Biomedical Scientist and read about the opportunities available to you to on your journey to becoming a BMS.

This guide is designed to give you a brief overview of how to become a BMS. Although it is packed full of useful information, you must also do your own research as there will always be new opportunities and options for you.

So, do click on these links to read more or watch the videos, before jumping to the next section where you can dive into the details of the requirements at each stage of the apprenticeship or academic process.

In the next section you can click on each stage of the journey to read more about the requirements, whether you're interested in T-Levels and Apprenticeships or A-Levels and a BSc degree.

- Understanding the routes to a career in Biomedical Science
- Should I go to University or do an Apprenticeship?
- Career Planning
- National School of Healthcare Science
- Pathology Career
- Apprenticeship resources for schools, teachers and parents

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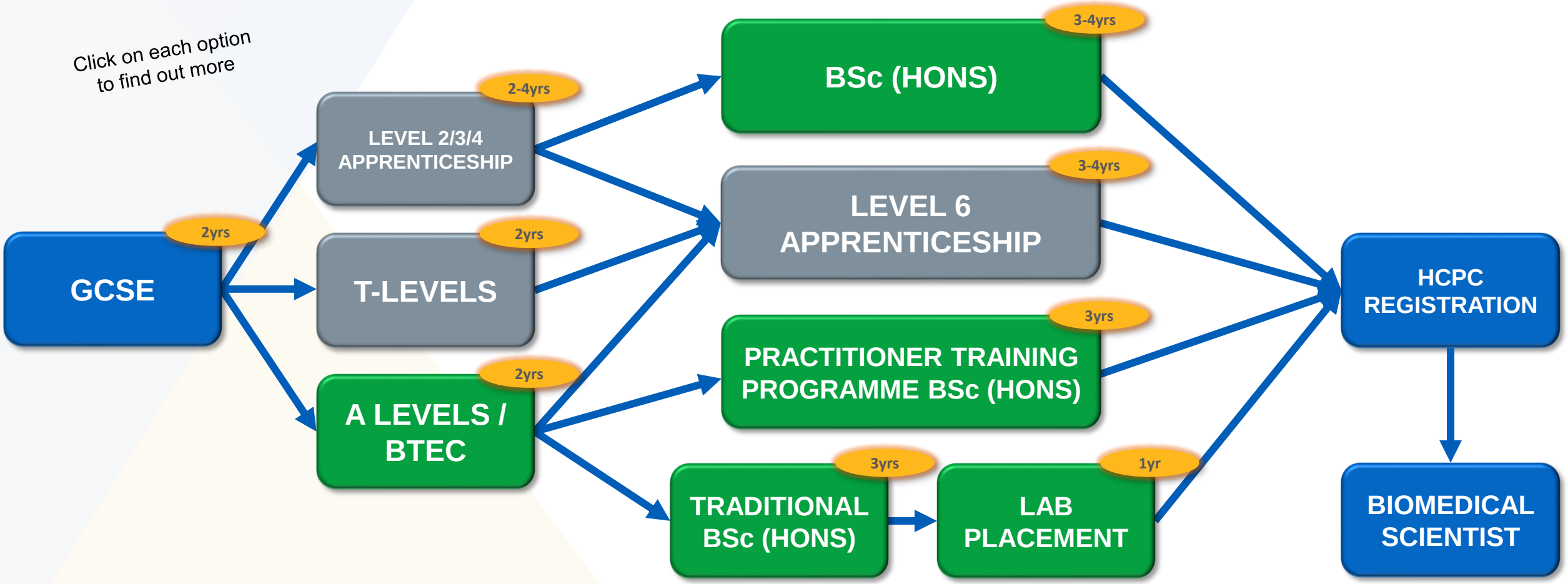
The Main Apprenticeship and Academic Routes to Becoming a Registered BMS

Click on each option to find out more



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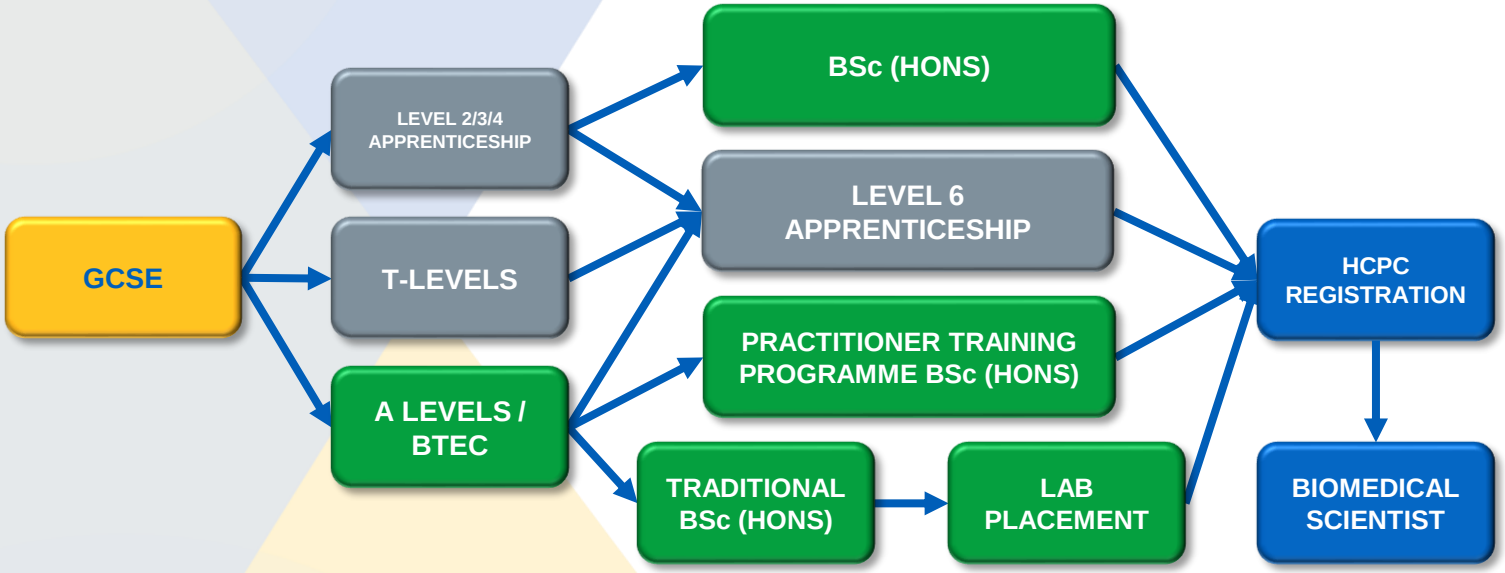
GCSE Requirements

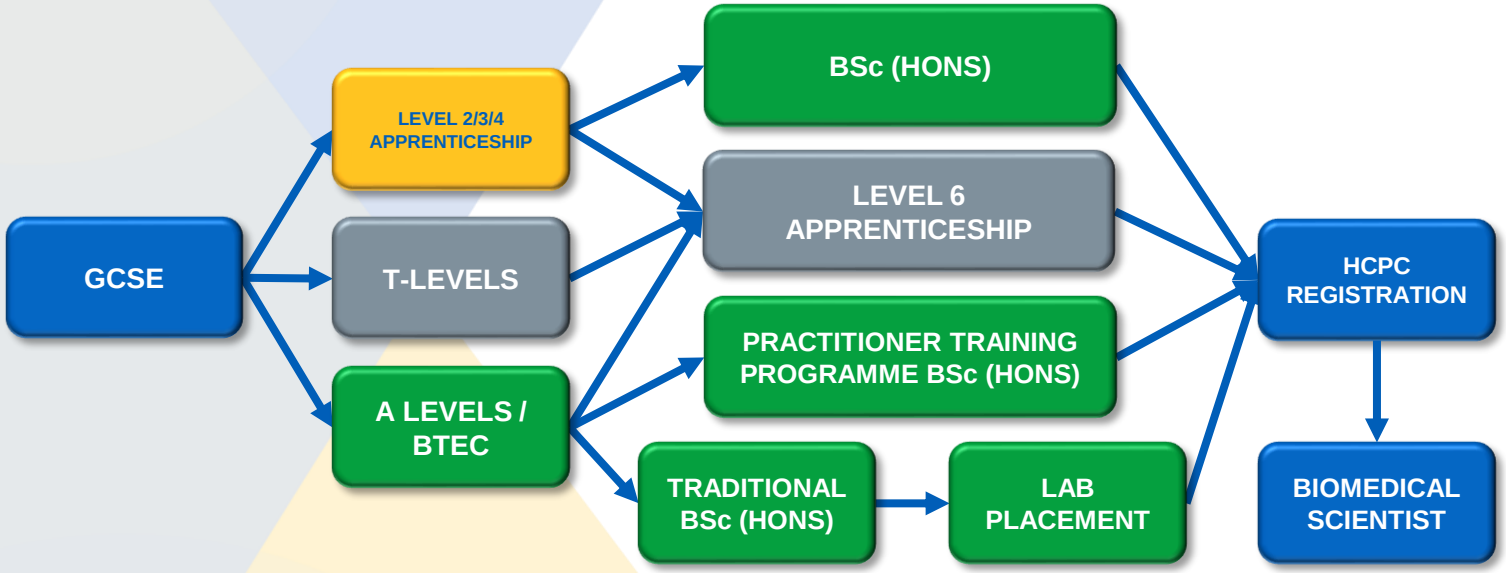


For most IBMS accredited biomedical science programmes in the UK, applicants will need **grade 4 or above in GCSE English, maths, and double award science**.

Most IBMS accredited biomedical science degree courses do not ask for triple award GCSE science.

Accredited courses - Undergraduate UK courses - Institute of Biomedical Science Careers (ibms.org)

Level 2, 3 or 4 Apprenticeships



After GCSEs you can choose to do a Level 2 or Level 3 apprenticeship. Both these courses last for one year and you will achieve a Diploma in Healthcare Science. There is an expectation you would have **grade 4 or above in GCSE English and maths,** however, it is possible to study English and maths functional skills alongside the apprenticeship if you do not have them.

You will be employed at Band 2 level, earning a salary while studying part-time.

***Click here to see a list of accredited Undergraduate courses*

It may be possible to go straight into a Level 4 apprenticeship, but most candidates complete a Level 2 Apprenticeship first, before starting a Level 4 apprenticeship. For the duration of their programme, you will be employed at Band 3/4 level, earning a salary and will carry out routine technical and scientific procedures while simultaneously studying. Level 4 apprenticeships take 2 years and upon completion you will achieve a Level 4 Diploma in Healthcare Science and will be eligible to join the Academy for Healthcare Sciences (AHCS).

Upon completion of a Level 3 or 4 Apprenticeship you can choose whether to continue with the apprenticeship route and undertake a Level 6 Apprenticeship or to go to university and study one of the accredited courses enroute to becoming HCPC Registered. Please see the **MORE INFO** section and the link to the Institute of Biomedical Science Careers for a complete list of accredited courses available at universities around the UK

(*the **MORE INFO** section only offers information about those course in or close to the South West region*).

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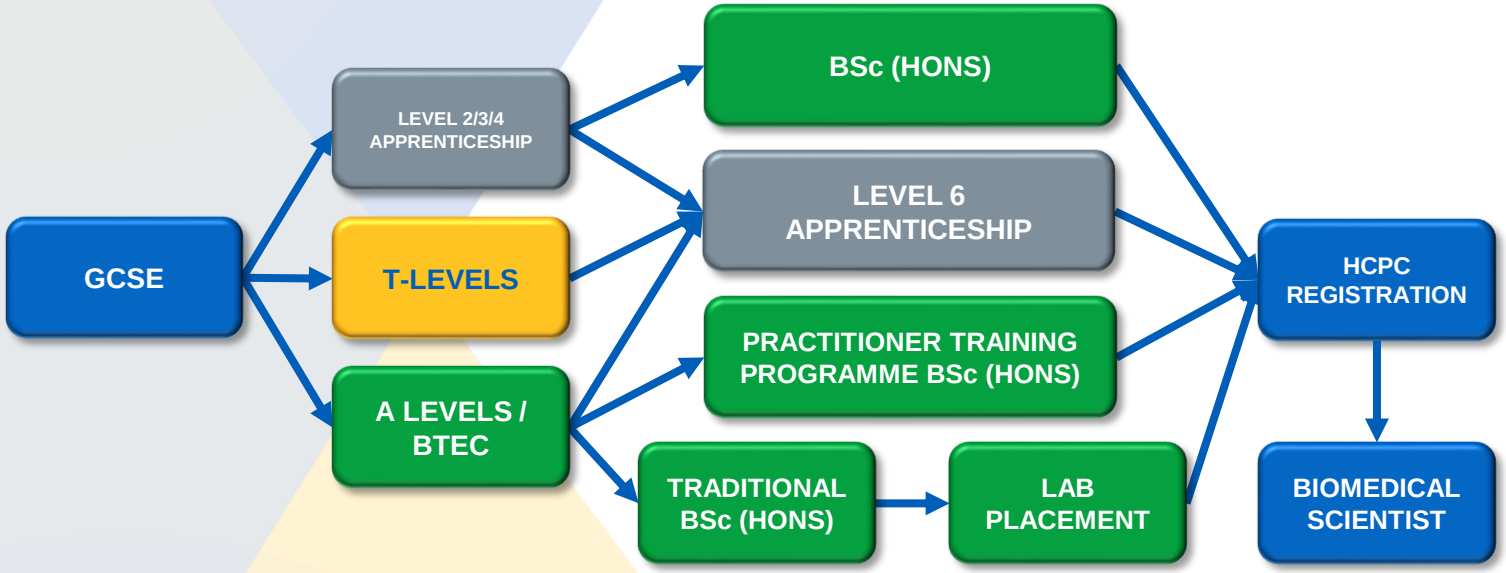
T Levels



T Level subjects are available in science, applied science and biomedical science which will allow progress onto further and higher biomedical science courses.

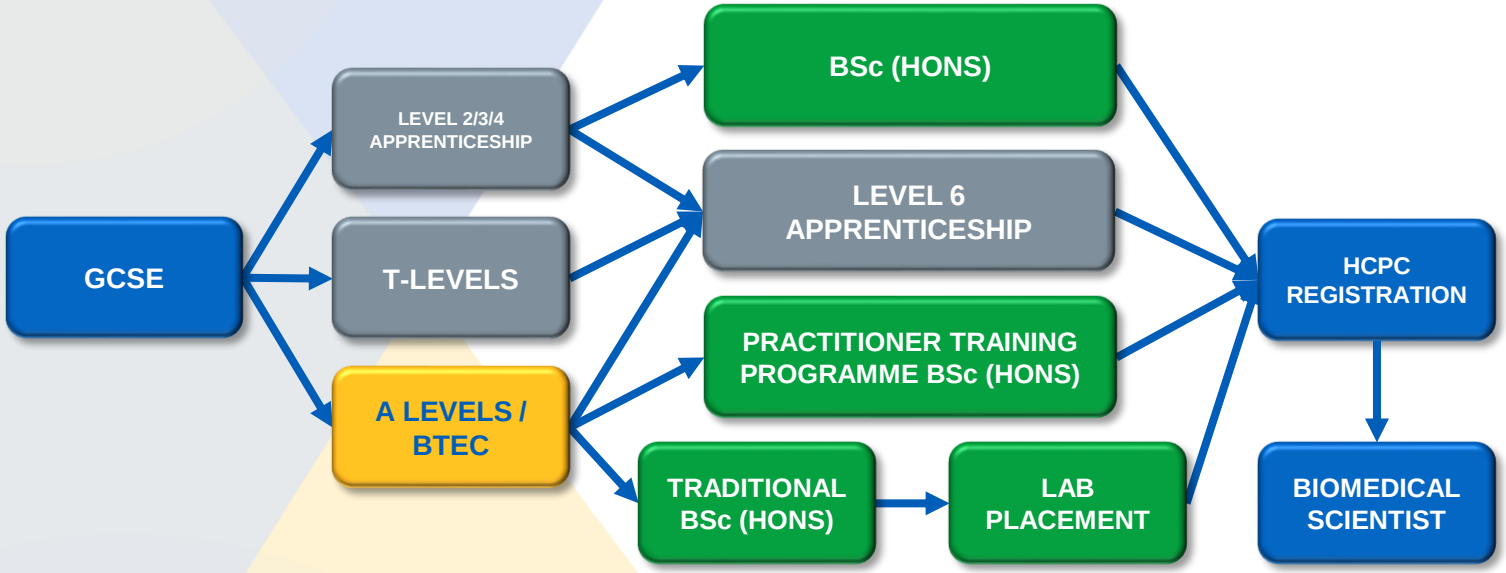
T Levels are new 2-year courses which are taken after GCSEs and are broadly equivalent in size to 3 A Levels. These courses have been developed in collaboration with employers and education providers so that the content meets the needs of industry and prepares students for entry into skilled employment, an apprenticeship or related technical study through further or higher education.

T Levels offer students practical and knowledge-based learning at a school or college and on-the-job experience through an industry placement of at least 315 hours – approximately 45 days.

The courses are available at selected colleges, schools and other providers across England.

Upon completion of your T-Levels, you can join the apprenticeship programme at Level 6.

A Levels / BTEC



For most IBMS accredited biomedical science programmes in the UK, applicants will need **A Levels in Biology or Chemistry.** (The required grades for entry to complete and apprenticeship or degree course will vary by establishment.)

Some courses recommend at least two sciences, where a second science could be Physics, Mathematics or other Scientific course.

Each IBMS accredited biomedical science degree course entry requirements vary, so it is sensible to think about whether you want to pursue an apprenticeship or a BSc degree after A-Levels to ensure you take the right A-levels for the route you wish to follow.

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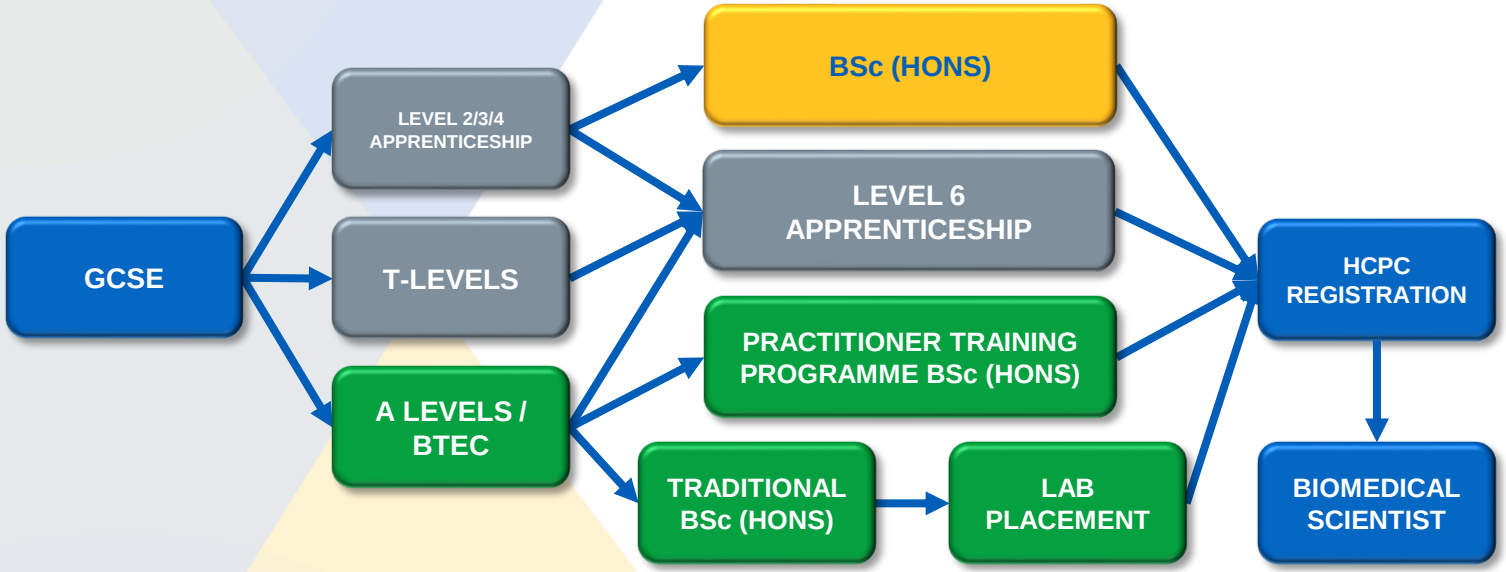
BSc (Hons)



Upon completion of a Level 3 or 4 Apprenticeship you can choose whether to continue with the apprenticeship route and undertake a Level 6 Apprenticeship or to go to university and study for a degree.

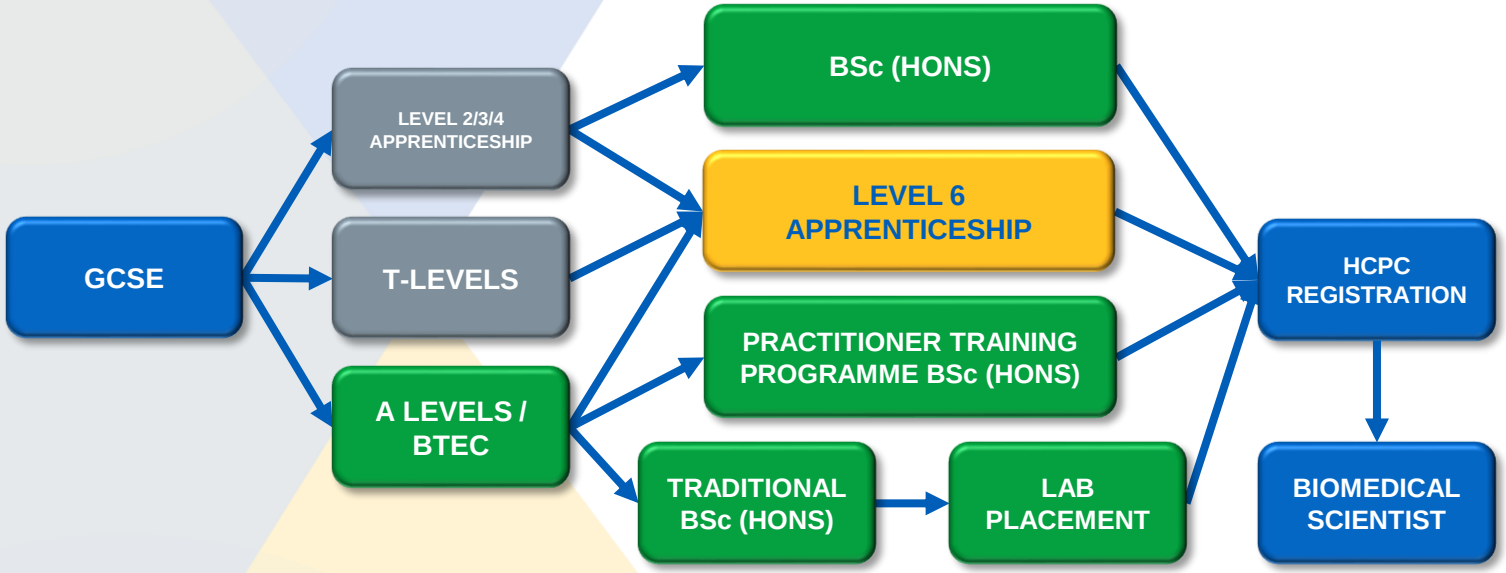
Traditional university degrees are 3-4 years depending on whether you choose to complete a clinical placement. After the degree you can State Register with the Health and Care Professions Council (HCPC) if you have completed an IBMS portfolio.

Typical Entry Requirements: BTEC Extended Diploma: DMM - DDM including Maths and Biology or Chemistry units; BTEC Diploma: D*D*

NB You need to follow an **IBMS accredited degree to become a Biomedical Scientist within pathology.

***Click here to see a list of accredited Undergraduate courses*

Level 6 Apprenticeship

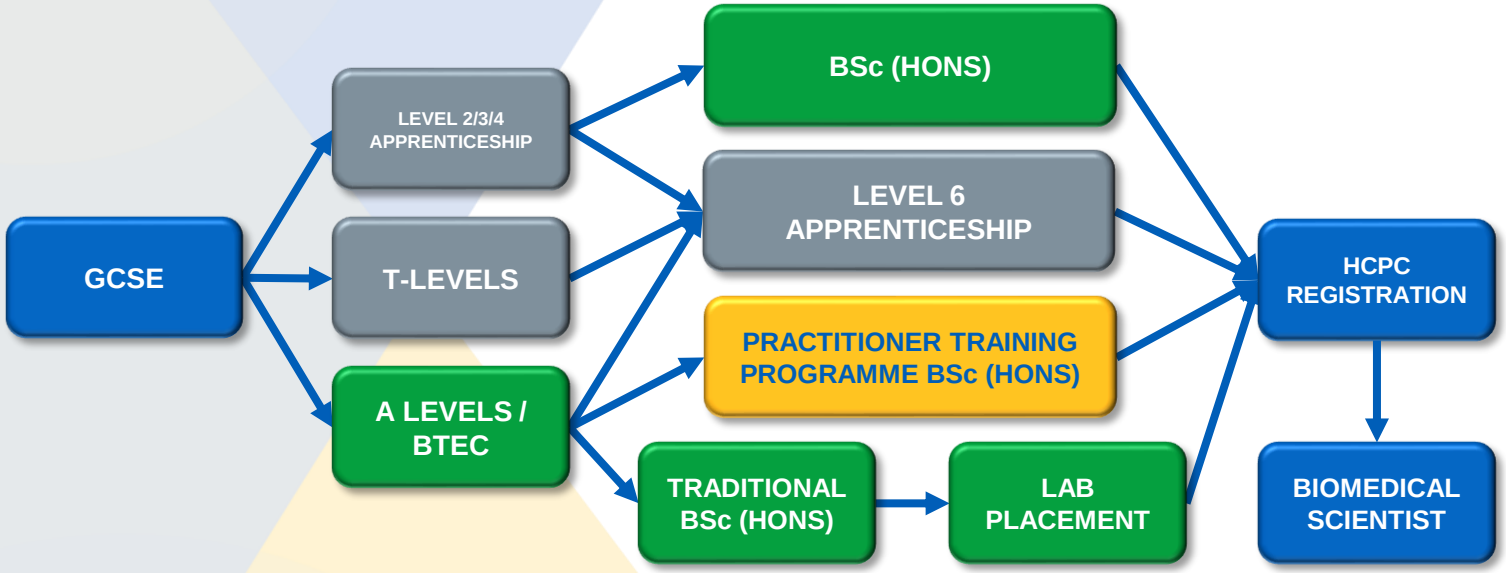


Upon completion of a Level 3 or 4 Apprenticeship, relevant T-Levels or A-Levels, you can choose whether to continue via the apprenticeship route and undertake a **Level 6 Apprenticeship**.

A level 6 apprenticeship is a 3-year apprenticeship programme offering you salaried employment for the duration, at Band 4/5 level. You will provide HCS scientific and technical services within HCS Divisions in Life Science with the specific focus of work determined by the area/department within which you will be working. You will also have time set aside for studying.

Upon completion you will achieve an accredited / approved BSc (Honours) degree in healthcare science and will be eligible to apply for statutory regulation with HCPC.

Practitioner Training Programme BSc (Hons)



These four universities currently offer the PTP degrees for pathology related subjects (blood sciences; cellular sciences and infection sciences).
Click on them to read about the courses:

University of Sunderland | UNIVERSITY of BRADFORD | Cardiff Metropolitan University / Prifysgol Metropolitan Caerdydd | University of Central Lancashire UCLan

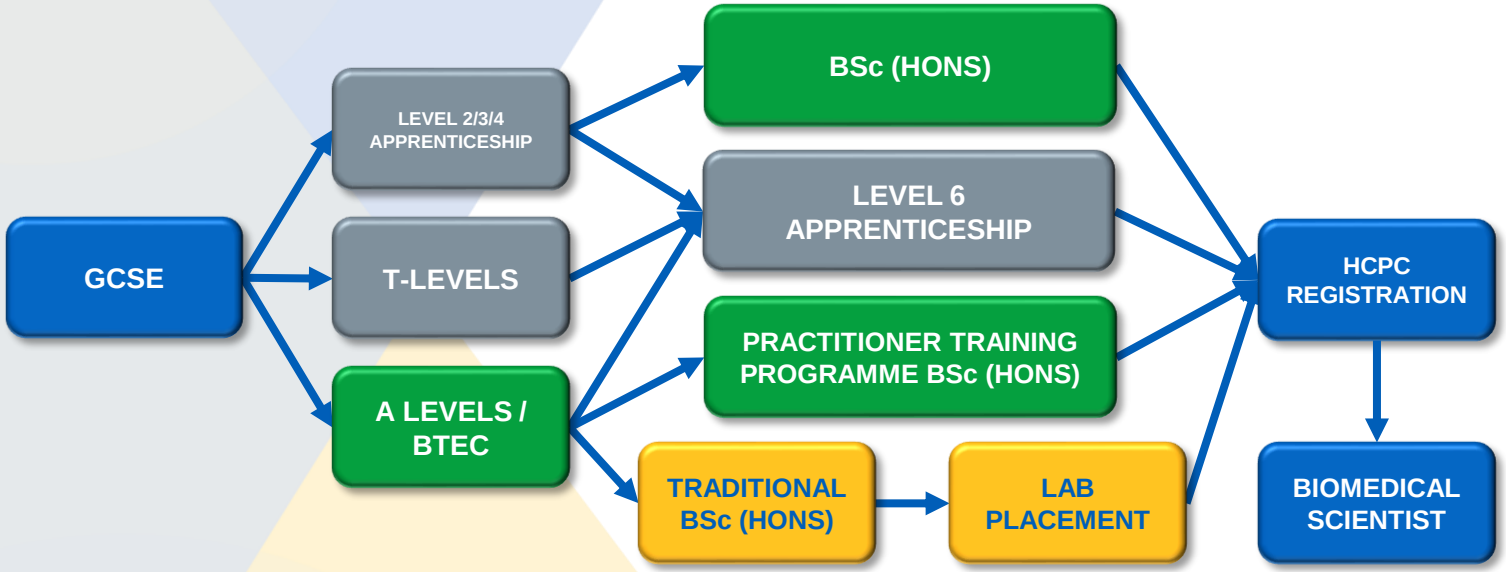
If you are keen to follow a traditional university funded degree route to become a HCPC registered Biomedical Scientist you can follow the **Practitioner Training Programme** (PTP)

The PTP is a dedicated three-year BSc Honours undergraduate training scheme that includes work-based and academic learning, and all tuition fees are paid for those successfully gaining a place on these NHS funded courses. These courses enable you to become an HCPC state registered biomedical scientist.

*Typical entry requirements for a Practitioner Training Programme: UCAS 120 points including chemistry and biology (BBB); BTEC Extended Diploma: DDM including Maths and Biology or Chemistry units; BTEC Diploma: D*D**

***NB** There are limited spaces for these funded places*

Traditional BSc (Hons)



Three-year course. As you near the end of your degree you would need to find a role with a pathology laboratory that supported you to complete the IBMS portfolio for state registration with the HCPC

OR

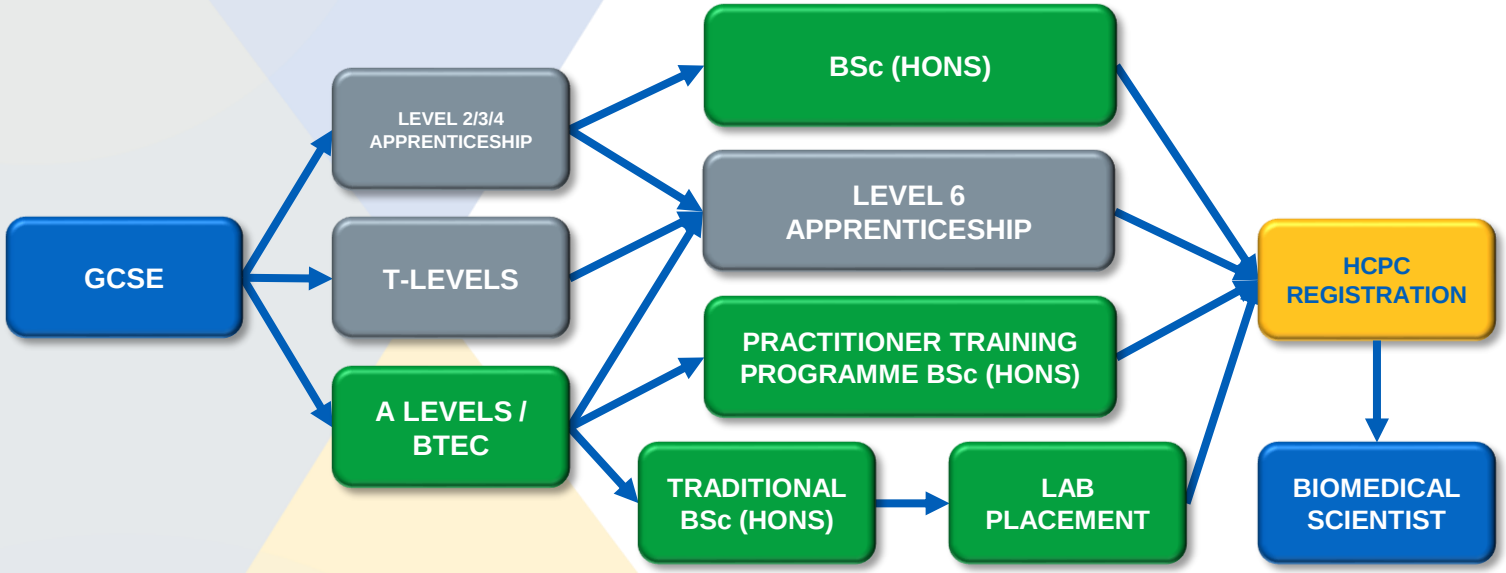
Four-year course which includes a pathology laboratory placement of 40 weeks in which you would complete the IBMS portfolio. Placements generally need to be found within year 2 during the spring term, although this may vary within universities.

*Typical Entry Requirements: UCAS 104-124 points including chemistry and biology (BCC); BTEC Extended Diploma: DMM - DDM including Maths and Biology or Chemistry units; BTEC Diploma: D*D**

***NB** You need to follow an **IBMS accredited degree to become a biomedical scientist within pathology.*

***Click here to see a list of accredited Undergraduate courses*

What is HCPC Registration?



To work as a Biomedical Scientist in the UK you must be registered with the **Health and Care Professions Council** (HCPC). The HCPC is a national body that sets standards for education, training and practice and regulates a number of health and care professions in the UK, including Clinical Scientists.

Biomedical Scientist is a protected title. It is a legal requirement for anyone using the title 'biomedical scientist' in the UK to be registered with the HCPC.

During your training you will need to have completed an **IBMS/HCPC ACCREDITED** degree and completed an **IBMS/HCPC Registration Portfolio** at an IBMS accredited training laboratory. If your degree is not accredited, you may be able to apply for top-up modules to meet the required standards.

More information can be found on these links below:

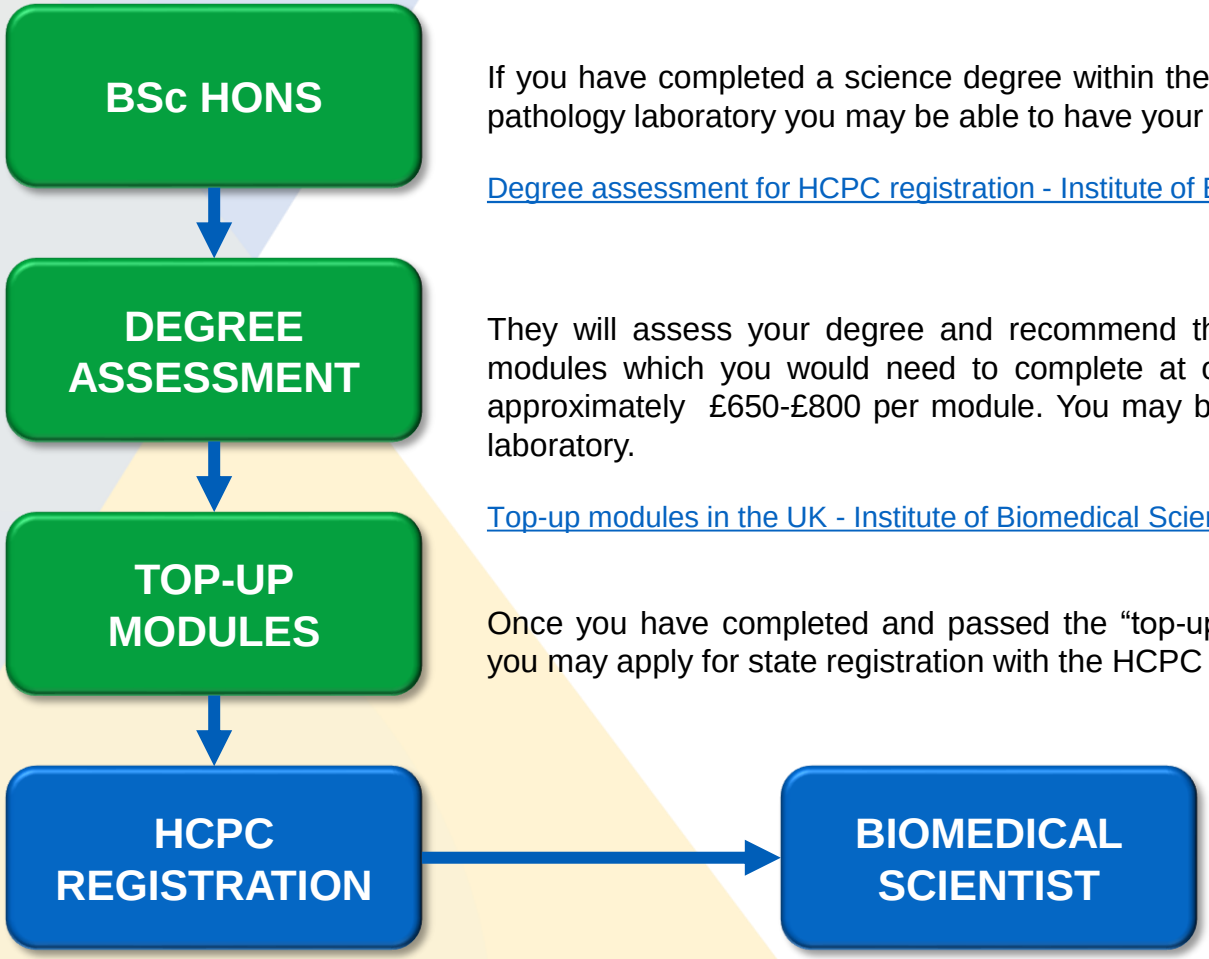
About the HCPC

Become a Biomedical Scientist

Get HCPC Registered

IF I DO NOT HAVE AN ACCREDITRED DEGREE

What if my Science Degree is not Accredited by the IBMS?



If you have completed a science degree within the last ten years and are working in a pathology laboratory you may be able to have your degree assessed by the IBMS.

Degree assessment for HCPC registration - Institute of Biomedical Science (ibms.org)

They will assess your degree and recommend the required undergraduate "top-up" modules which you would need to complete at one of the universities. These cost approximately £650-£800 per module. You may be able to receive funding from your laboratory.

Top-up modules in the UK - Institute of Biomedical Science Careers (ibms.org)

Once you have completed and passed the “top-up” modules AND the IBMS portfolio you may apply for state registration with the HCPC as a Biomedical Scientist.

Potential Career Opportunities

In the NHS, there is a standardised career structure, with different roles relating to different “Bands”. The NHS Terms & Conditions of Service (Agenda for Change) has a variety of resources explaining this Structure - NHS terms and conditions of service (Agenda for Change) | NHS Employers

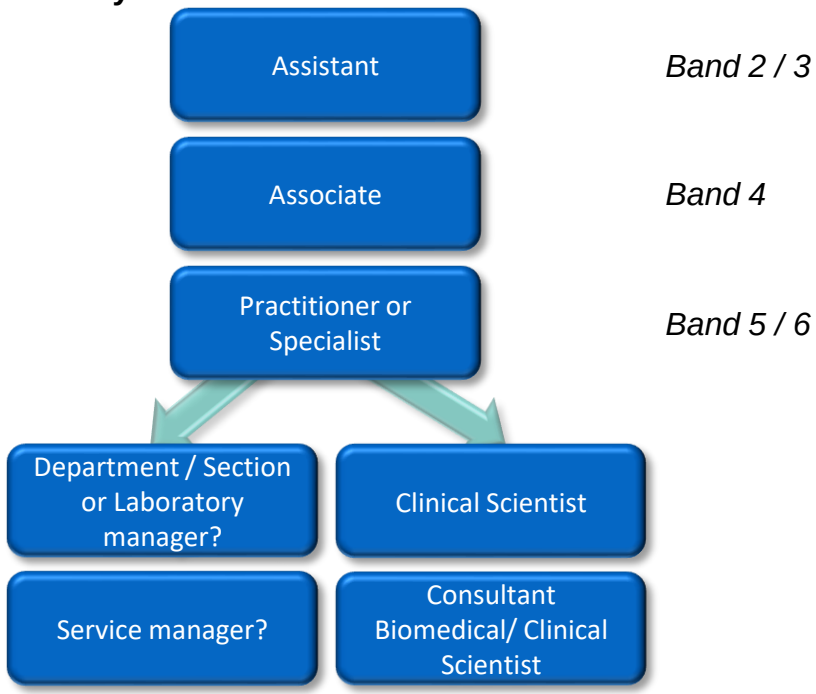
During completion of a Level 2 and/or a Level 4 Apprenticeship you will be performing some vital tasks within the workplace, receiving fundamental basic training, while building your skillset. You will learn the basics to potentially become a Biomedical Scientist, learning from your colleagues and putting your new skills into practice.

If you wish to progress up the career ladder, then it is recommended you continue with a Level 6 Apprenticeship, applying yourself to reporting, testing, investigations and interventions as a biomedical scientist. Alternatively, you may complete a traditional BSc (Hons) degree or Practitioner Training Programme. As a biomedical scientist you will learn and develop through further on-the-job practical training necessary for achieving Health and Care Professions Council (HCPC) registration, required for a career as a Biomedical Scientist.

The career pathway allows you to make options as part of your progression. You can choose to pursue a clinical role with direct interaction with patients and/or progress into a leadership and management role as a section, department, laboratory or service manager.

Whatever direction you want to take, there are plenty of opportunities for you. If you wish to climb the career ladder there are many options for leadership. If you wish to become an expert in a certain field, then this too is available to you. Life is never boring as a Biomedical Scientist, that is for sure.

Example Career Pathway:

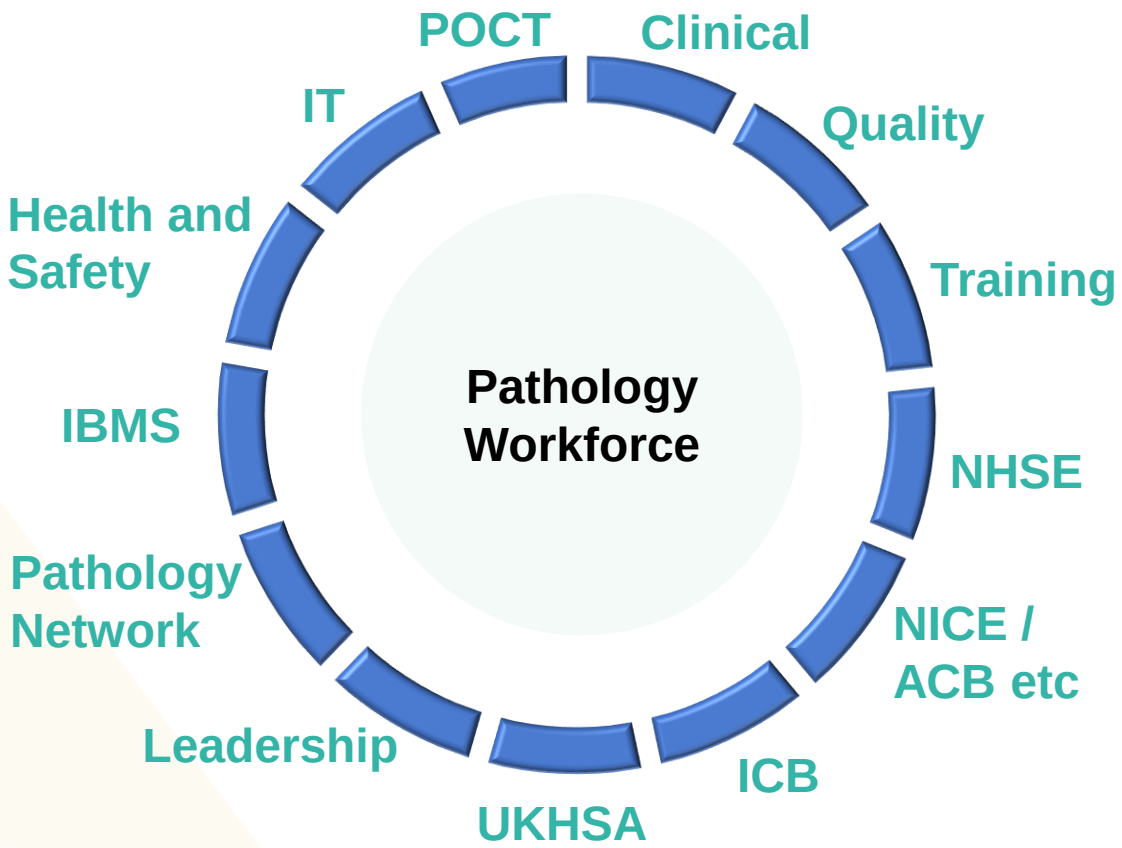


Potential Career Opportunities

Becoming an HCPC Registered Biomedical Scientist is only the start of an incredible career. A career that touches upon many other areas and offers a wide variety of opportunities.

As a Biomedical Scientist, you can take your career down all sorts of paths, including but not limited to **Leading your Pathology Team**, providing **Training for future Biomedical Scientists**. You may wish to **Specialise in a specific Clinical area** or leave the lab setting and become involved in **Point of Care Testing (POCT)**.

You may learn in one lab but you can always become involved in your local **Pathology Network**, or **Integrated Care Board** (ICB) or even work for **NHS England** (NHSE).



There are a variety of health care related bodies, such as **UK Health Security Agency** (UKHSA), the **National Institute for Health and Care Excellence** (NICE), the **Association for Clinical Biochemistry** (ACB) or the **Institute of Biomedical Science** (IBMS) you could eventually work for, providing your expertise to develop the future of Biomedical Science.

If you're technologically-minded, there is a lot of development in **IT and technology** in Biomedical Science. You could help implement new technology making your team's work more exciting or even develop the next piece of software to improve testing outcomes, for example.

As you can see, there are many different paths your career can take.

BMS Career Stages - Banding

In the NHS, there is a standardised career structure, with different roles relating to different “Bands”. The NHS Terms & Conditions of Service (Agenda for Change) has a variety of resources explaining this Structure - NHS terms and conditions of service (Agenda for Change) | NHS Employers.

The following section shows you some example roles at each Band in Biomedical Science, giving you an idea of what can be expected of you at each level of the career ladder, what responsibilities you may have and what training requirements there are to reach that level.

Once you reach a certain level, you can continue your career into senior management, or specialise in a certain area of interest.

NHS England South West

BAND 2/3

BAND 4

BAND 5

BAND 6

BAND 7

BAND 8+

Role: **Biomedical Assistant** and **Biomedical Assistant – Higher Level**

Salary starting at £22,383*

Job Description:
This role forms a vital function to the smooth running of a hospital laboratory and is important to ensure correct testing of samples. It is a great introduction to laboratory career pathways and gives a real insight into hospital life. You can work in a small or large team, be responsible for prioritising your workload and ensure workstreams are efficient and effective. You have the opportunity to deal with hospital staff at all levels from support services and clinical staff.

You will undertake clearly defined task and protocol based, high volume, low risk activities. Training through workplace based structured training and Apprenticeships

Qualifications / Training and Competency:

Band 2 - Basic numeracy and literacy qualifications (GCSE pass or equivalent)
Band 3 - GCSE pass or equivalent in Maths and English
Vocational Level 2 Qualification e.g. BTEC (or equivalent) in Pathology or an appropriate Scientific subject

Laboratory competency-based training records:

Internal core competencies (for example: Incident Reporting, Quality Management (UKAS ISO 15189), Health & Safety

Professional Registration: None

Further role development:

IBMS Certificate of Achievement
BTEC Level 2 Diploma in Healthcare Science
Level 2 Healthcare Science Assistant Apprenticeship
For Band 3's an opportunity for in-house Aspiring/Section Leadership training

*Salary examples are the entry level for 2023/24 NHS terms and conditions of service (Agenda for Change) | NHS Employers

BAND 4

NHS England South West

BAND 2/3

BAND 4

BAND 5

BAND 6

BAND 7

BAND 8+

Salary starting at £25,147*

Role: **Biomedical Associate Practitioner**

Job Description:
This important role is a great introduction to the more scientific aspect of biomedical science. You often work in close collaboration with band 2/3 grades but also Biomedical Scientists and have a greater input to the smooth operation of the laboratory. This can include operation of high throughput analysers, automated track systems, digital scanning equipment. It can be an initial step to onward progression to a biomedical science, IT, management or clinical career.

You will undertake more advanced and complex high volume low risk investigative tasks. Training through workplace training and Foundation degree

Qualifications / Training and Competency:

GCSE pass or equivalent in Maths and English Level 4 Diploma in Healthcare Science
OR
Certificate of Higher Education (CertHE), BSc or HNC in a relevant Science subject

Laboratory competency-based training records:

Internal core competencies (for example: Incident Reporting, Quality Management (UKAS ISO 15189), Health & Safety

Professional Registration: None

Further role development:

IBMS Accredited BSc Biomedical Science
Level 6 Healthcare Science Practitioner Apprenticeship OR Equivalent education top up Modules
Edward Jenner Leadership Programme
In-house Leadership training

*Salary examples are the entry level for 2023/24 NHS terms and conditions of service (Agenda for Change) | NHS Employers

BAND 5

NHS England South West

BAND 2/3

BAND 4

BAND 5

BAND 6

BAND 7

BAND 8+

Role: **Trainee Biomedical Scientist** & **Biomedical Scientist**

Salary starting at £28,407*

Job Description:
The main role of a Biomedical Scientist is the production and interpretation of results from a wide range of samples. Discussing results with technical and clinical staff and ensuring the best quality results for patient care.
You will apply technology, in the delivery & reporting of quality assured tests, investigations & interventions. Activities will be outlined in 'protocols'. You will be expected to use judgement and to deal with ambiguity.

Qualifications / Training and Competency:

IBMS Accredited Biomedical Science degree/or equivalent acceptable to the HCPC
Trainees working towards the IBMS Certificate of Competence (Registration Portfolio)
Biomedical Scientist - IBMS Certificate of Competence (Registration Portfolio)

Laboratory competency-based training records:

Internal core competencies (for example: Incident Reporting, Quality Management (UKAS ISO 15189), Health & Safety

Professional Registration:

Trainees – None
Registered Biomedical Scientists – Health and Care Professions Council (HCPC)

Further role development:

IBMS Specialist Diploma
In-house Aspiring/Section/Team Leadership training

*Salary examples are the entry level for 2023/24 NHS terms and conditions of service (Agenda for Change) | NHS Employers

BAND 6

NHS England South West

BAND 2/3

BAND 4

BAND 5

BAND 6

BAND 7

BAND 8+

Salary starting at £35,392*

Role: **Specialist Biomedical Scientist** & **Trainee Pathology Section Manager**

Job Description:
Specialist Biomedical Scientists can be involved in science at many levels from R&D, assisting in science papers, and give specialist advice to clinicians. They are often involved in implementing and verifying new scientific methods, equipment and processes. This role can be the cross-roads for following a clinical pathway or management role.

Qualifications / Training and Competency:

- IBMS Accredited Biomedical Science degree/or equivalent acceptable to the HCPC
- IBMS Certificate of Competence (Registration Portfolio)
- IBMS Specialist Diploma/CPSM Log Book (or equivalent qualification)
- Working towards FIBMS via the IBMS Higher Specialist Diploma

Laboratory competency-based training records:

- Internal core competencies (for example: Incident Reporting, Quality Management (UKAS ISO 15189), Health & Safety

In-house Management Training Programme:

- Recruitment & Selection, Managing Attendance, Managing Change: Team structures & Re-organisations, Effective Appraisal Workshop, Investigation Training and Managing Individual Performance.

Professional Registration:

- Health and Care Professions Council (HCPC)

Further role development:

- IBMS Higher Specialist Diploma
- In-house Aspiring/Section/Team Leadership training
- Trainee STP to move into a clinical role

*Salary examples are the entry level for 2023/24 NHS terms and conditions of service (Agenda for Change) | NHS Employers

BAND 7

NHS England South West

Salary starting at £43,742*

BAND 2/3

BAND 4

BAND 5

BAND 6

BAND 7

BAND 8+

Role: **Pathology Section Manager**

Job Description:
As a band 7 Biomedical Scientist you often run a specialist section within a department and be in charge of a small team of different staff grades. Many become widely renowned in pathology and progress onto speaking at conferences and events in their specialist subject area. Write scientific papers, lead R&D, guest lecturing, tutoring, examiners, training, webinars.
and progress into managerial or clinical roles. Many section leads progress onto a management role and run a whole department.

Qualifications / Training and Competency:

IBMS Accredited Biomedical Science degree/or equivalent acceptable to the HCPC
MSc, FIBMS or IBMS Special Examination

Laboratory competency-based training records:

Internal core competencies (for example: Incident Reporting, Quality Management (UKAS ISO 15189), Health & Safety

In-house Management Training Programme:

Recruitment & Selection, Managing Attendance, Managing Change: Team structures & Re-organisations, Effective Appraisal Workshop, Investigation Training and Managing Individual Performance.

Professional Registration:

Health and Care Professions Council (HCPC)

Further role development:

IBMS Higher Specialist Diploma
In-house Section/Team Leadership training:

- Leadership & Management Qualification
- Role specific qualifications - Quality, IT, Performance, Project Management, Health & Safety

*Salary examples are the entry level for 2023/24 NHS terms and conditions of service (Agenda for Change) | NHS Employers

BAND 8+

NHS England South West

BAND 2/3

BAND 4

BAND 5

BAND 6

BAND 7

BAND 8+

Salary starting at £50,952 to over £114,000*

Role: **Pathology Department Manager**

Job Description:
This role is responsible for running a department and requires collaboration across different laboratories, networks and organisations. It's an exciting position that requires development of a department, staff and services and can be highly rewarding.

Complex scientific and clinical roles. High risk, low volume activities which require highly skilled staff able to exercise clinical judgement about complex facts and clinical situations. Training through Scientist Training Programme (STP). In-depth, highly complex role. Similar to medical consultant role as requires clinical judgement, scientific expertise, leadership and dealing with uncertainty in direct patient care. Training through Higher Specialist Training (HSST) programme.

Qualifications / Training and Competency:

IBMS Accredited Biomedical Science degree/or equivalent acceptable to the HCPC
MSc, FIBMS or IBMS Special Examination
Recognised Management qualification or working towards

Laboratory competency-based training records:

Internal core competencies (for example: Incident Reporting, Quality Management (UKAS ISO 15189), Health & Safety

In-house Management Training Programme:

Finance, Recruitment & Selection, Managing Attendance, Managing Change: Team structures & Re-organisations, Effective Appraisal Workshop, Investigation Training and Managing Individual Performance.

Professional Registration:

Health and Care Professions Council (HCPC)

*Salary examples are the entry level for 2023/24 NHS terms and conditions of service (Agenda for Change) | NHS Employers

STP AND HSST TRAINING OPPORTUNITIES

NHS England South West

BAND 2/3

BAND 4

BAND 5

BAND 6

BAND 7

BAND 8+

Salary starting at £50,952 to over £114,000*

Role: **Pathology Department Manager**

Further Role Development:

IBMS Higher Specialist Diploma

In-house **Section/Team Leadership** training:

- Leadership & Management Qualification
- Role specific qualifications - Quality, IT, Performance, Project Management, Health & Safety, Finance

In addition to the standard further career development above, at Pathology Department Manager level and above, there is an opportunity to pursue the following training programmes:

STP

Commissioners of the Scientist Training Programme (STP) will allocate £2,000, per trainee, each academic year, for educational training support and supply to the individual employers. STPs are postgraduate degree (Masters-level) with clinical placement. These roles are fully funded at Band 6 salary.

HSST

The HSST is a partly funded training programme, at doctorate level, with the academic components fully funded. The HSST does not include salary support, which needs to be provided by a host organisation/network.

Trainees also benefit from a £13,260 training support allowance per year, which can be used to support training, development, examination, research, travel, and accommodation costs.

*Salary examples are the entry level for 2023/24 NHS terms and conditions of service (Agenda for Change) | NHS Employers

SENIOR MANAGEMENT

Senior Management Route

Are you interested in Leadership and leading teams of scientific staff as your next career step? You could become a Service Lead or a Laboratory Manager.

These links will help you with some courses that are available at the moment.

- NHS Graduate Management Training Scheme
- Better Leaders, Better Care, Brighter Future
- South West Leadership Academy
- Apprenticeships – Leadership Academy
- Return to Practice (HEE)
- Leadership and Management

Clinical Opportunities for a Registered BMS

The Scientist Training Programme (STP)

The Scientist Training Programme (STP) is a three-year programme of work-based learning, supported by a University accredited master's degree. Many will work directly with patients and all will have an impact on patient care and outcomes. They will be involved, often in lead roles, in innovation and improvement, research and development and/or education and training. https://nshcs.hee.nhs.uk/programmes/stp/

Clinical Scientist Apprenticeship (Level 7)

The Clinical Scientist Apprenticeship is a 3- year apprenticeship programme. Apprentices are employed for the duration of their programme and work across the whole patient pathway and breadth of healthcare environments in a range of scientific area including Bioinformatics, Life Sciences, Physical Sciences and engineering and Physiological Sciences.

Clinical Scientists are registered with the Health and Care Professions Council (HCPC) and have a specific scientific knowledge in a healthcare environment. This apprenticeship standard is available to individuals in professions which would be eligible for HCPC registration as a Clinical Scientist, which is a protected title

Higher Specialist Scientist Training Programme (HSST)

The Higher Specialist Scientist Training Programme (HSST) is a five-year blended academic and workplace training programme, developed by the National School of Healthcare Science (NSHCS), which is part of Health Education England (HEE), and the healthcare science community. The HSST programme provides opportunities for healthcare scientists to train to become eligible for available consultant healthcare scientist posts and is a great way to grow and develop your current consultant workforce. NSHCS develop, commission, support, and assess trainees on the programme. Trainees can either be recruited as new employees (direct entry) or from the existing workforce (in-service entry). https://nshcs.hee.nhs.uk/programmes/hsst/

Click here to watch a video about being a **Clinical Scientist**

Physician Associate (PA)

Physician associates support doctors in the diagnosis and management of patients. It is now also available as an Apprenticeship.

As a physician associate, you might work in a GP surgery or be based in a hospital, but wherever you work, you'll have direct contact with patients.

You'll be a **graduate** who has undertaken postgraduate training, and you'll work under the supervision of a doctor. You'll be trained to perform a number of day-to-day tasks including:

- taking medical histories from patients
- performing physical examinations
- diagnosing illnesses
- seeing patients with long-term chronic conditions
- performing diagnostic and therapeutic procedures
- analysing test results
- developing management plans
- provide health promotion and disease prevention advice for patients.

Click to watch a video about a **Career as a Physician Associate**

Read about a **Physician Associate Apprenticeship**

What are the Different Specialisms in Biomedical Science?

Biomedical Science covers many specialisms under the banner of pathology. How many of them have you heard of before? Do you know what they all are?

Explore the areas and career profiles from the **Institute of Biomedical Science** by clicking on the buttons below. You can read about the different specialisms and watch some videos there too.

Click to discover **Biomedical Science**

Become a **Biomedical Scientist**…

Pathology Specialist Areas

histopathology
clinical biochemistry
molecular pathology
transfusion medicine
forensic pathology
immunology
reproductive science
cytopathology
microbiology
haematology
There are 17 different specialities under the umbrella of Pathology
toxicology
genetics
histocompatibility and immunogenetics
neuropathology
virology
paediatric and perinatal pathology
veterinary pathology

Pathology for the Future

Digital pathology/haematology - the process involves converting glass slides containing tissue or blood samples into digital pathology images using digital pathology scanning solutions. The digital slide image allows high resolution viewing, interpretation and analysis on or off site with multiple consultants for diagnosis. All images can be stored with the patient's electronic records.

Artificial Intelligence (AI) - Clinical Decision Software - allows automatic diagnosis and allocation of follow up tests, clinical appointments and procedures on blood and tissue samples.

Point of Care (POCT) instrumentation is increasingly allowing simple tests to be performed outside the hospital laboratory. They can be performed in theatres, ambulances, GP surgeries or out in the community. POCT is also a major feature in the new Clinical Diagnostic Centres (CDC).

Laboratory automation – is increasingly integrating services into a single centre for pathology and increases the optimisation of AI input and outcomes.

THE FUTURE OF PATHOLOGY IS DIGITAL
(click to find out more)

Other Training and Career Support Options

As well as career routes directly linked to Biomedical Science there are numerous options in support roles or career knowledge expansion options such as those listed below that supplement the pathology service:

- **MSc/MBA**
- **PhD/professional Doctorate**
- **Research**
- **IT and Digital technology / pathology**
- **Quality and Governance**
- **Training and education**
- **Business administration and finance**
- **Customer Service**
- **Mentoring/coaching**
- **Point of Care Testing (POCT)**

Find a course on the **National Careers Service**

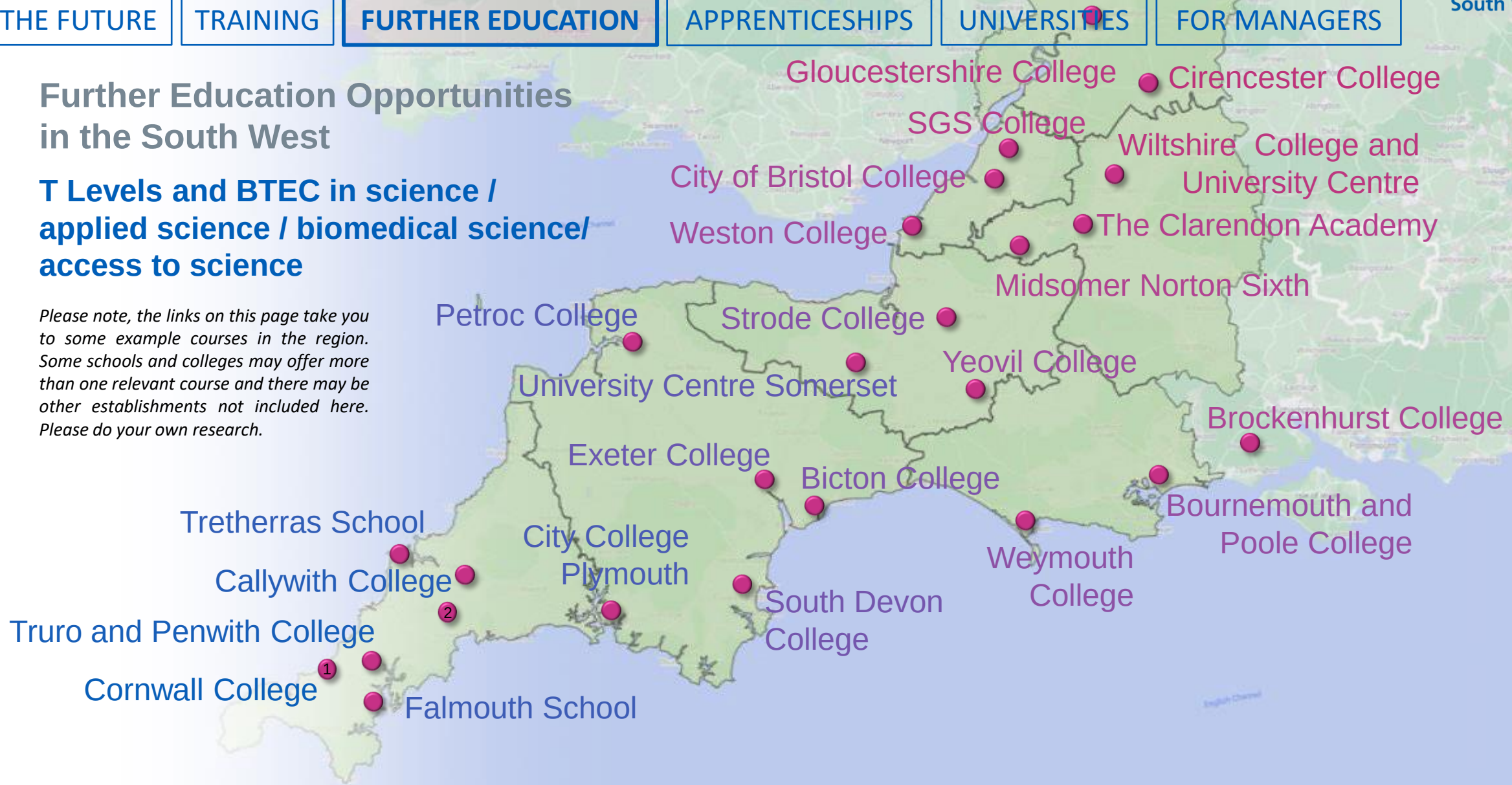
Read about **Research Scientist Apprenticeship** at Keele University

NHS England South West

Further Education Opportunities in the South West

T Levels and BTEC in science / applied science / biomedical science/ access to science

Please note, the links on this page take you to some example courses in the region. Some schools and colleges may offer more than one relevant course and there may be other establishments not included here. Please do your own research.



NHS England South West

Apprenticeship Opportunities Nationwide

Level	Apprenticeship Standard	Provider	Delivery Area	Name	Email
2 and 3	Customer Service	LMP	National	Jamie McVey	jamie@lmpeducation.org
2	Business Administration	Qube Learning	National		01235 833838
2	Healthcare Science Assistant	CSR Scientific	National	Elisa Moores	elisamoores@csr-group.co.uk
2	Healthcare Science Assistant	Dynamic Training UK	National	Anne Mcloughlin	anne.mcloughlin@dynamictraining.org.uk
2	Healthcare Science Assistant	Queen Alexandra Hospital	South East	Lisa-Marie Way	lisa-marie.way@porthosp.nhs.uk
3	Business Administration	DBC	National	Cath Albans	cath.albans@dbc-training.co.uk
3	Business Administration	SR Apprenticeships	National	Paula Prescott	paula.prescott@sr-apprenticeships.co.uk
3	Laboratory Technician	CSR Scientific	National	Elisa Moores	elisamoores@csr-group.co.uk
3	Laboratory Technician	Tiro Training Ltd	National	Benn Chackfield	benn.chacksfield@tiro.co.uk
3	Learning Mentor	LMP	National	Jamie McVey	jamie@lmpeducation.org
3	Learning Mentor	SR Apprenticeships	National	Paula Prescott	paula.prescott@sr-apprenticeships.co.uk
3	Quality Practitioner	CSR Scientific	National	Elisa Moores	elisamoores@csr-group.co.uk
3	Team Leader	Activate Apprenticeships	National	Mike Craig	mike.craig@activateapprenticeships.co.uk
3	Team Leader	DBC	National	Cath Albans	cath.albans@dbc-training.co.uk
3	Team Leader	Dynamic Training UK	National	Anne Mcloughlin	anne.mcloughlin@dynamictraining.org.uk
3	Team Leader	Impact Futures	National	Guy Helman	guy.helman@impactfutures.co.uk
3	Team Leader	SR Apprenticeships	National	Paula Prescott	paula.prescott@sr-apprenticeships.co.uk

Healthcare Apprenticeship Standards Online

NHS England South West

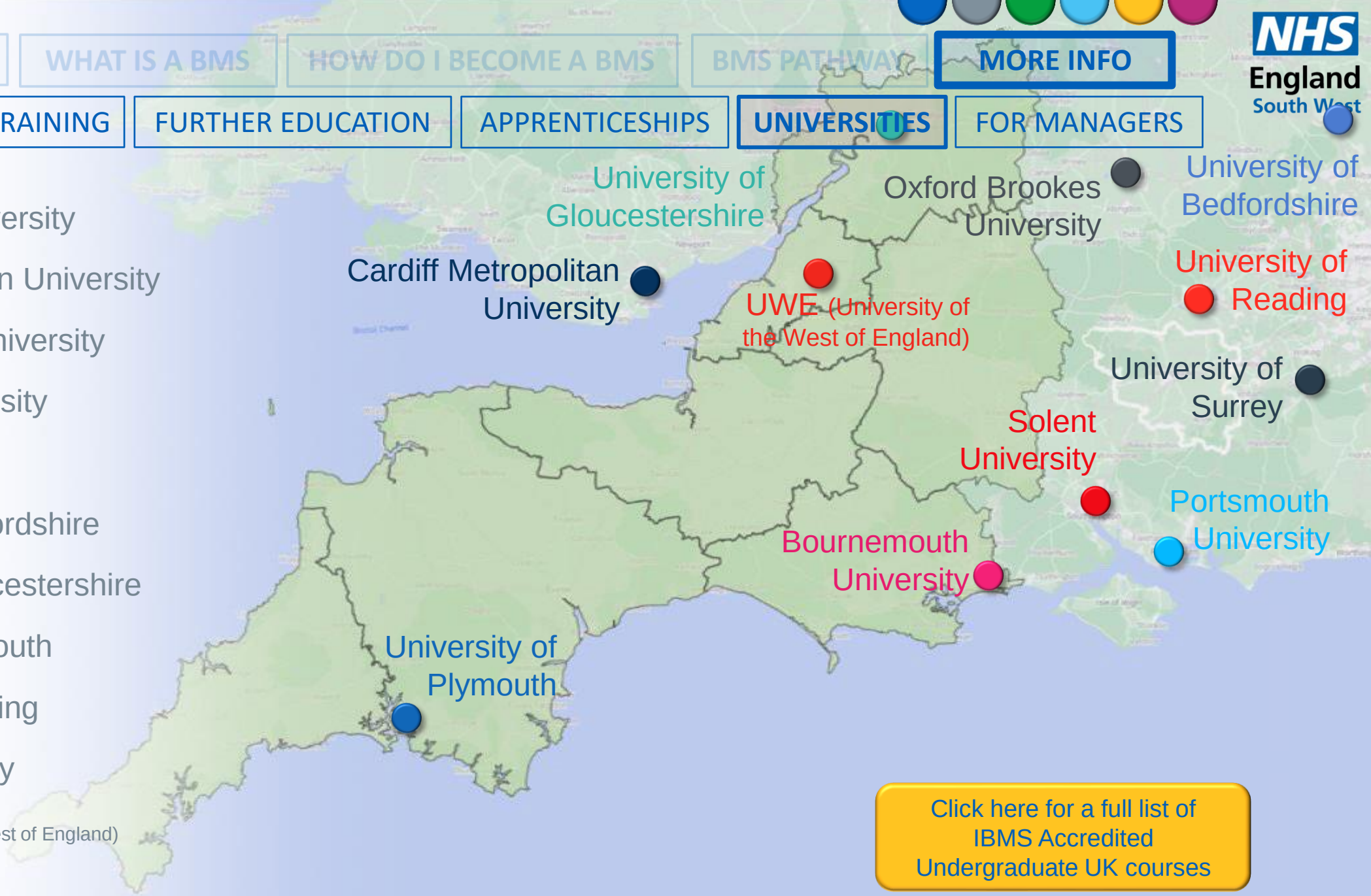
Apprenticeship Opportunities Nationwide

Level	Apprenticeship Standard	Provider	Delivery Area	Name	Email
4	Healthcare Science Associate	CSR Scientific	National	Elisa Moores	elisamoores@csr-group.co.uk
4	Healthcare Science Associate	Dynamic Training UK	National	Anne Mcloughlin	anne.mcloughlin@dynamictraining.org.uk
4	Healthcare Science Associate	London South Bank University	London and SE	Mohammed Mansour	mohammed.mansour@lsbu.ac.uk
5	Education and Skill Teacher	LMP	National	Jamie McVey	jamie@lmpeducation.org
5	Operations Manager	Activate Apprenticeships	National	Mike Craig	mike.craig@activateapprenticeships.co.uk
5	Operations Manager	DBC	National	Cath Albans	cath.albans@dbc-training.co.uk
5	Operations Manager	Encompass Training	National		enquiries@encompass.training
5	Operations Manager	Impact Futures	National	Guy Helman	guy.helman@impactfutures.co.uk
5	Operations Manager	SR Apprenticeships	National	Paula Prescott	paula.prescott@sr-apprenticeships.co.uk
6	Healthcare Science Practitioner	London South Bank University	London and SE	Mohammed Mansour	mohammed.mansour@lsbu.ac.uk
6	Healthcare Science Practitioner	Nottingham Trent University	National	Sheri Scott	sheri.scott@ntu.ac.uk
6	Healthcare Science Practitioner	Solent University	South East	Vadim Taraban	vadim.taraban@solent.ac.uk
6	Healthcare Science Practitioner	Staffordshire University	National	Maria Feenan	m.feenan@staffs.ac.uk
6	Healthcare Science Practitioner	Ulster University	National	Victor Gault	va.gault@ulster.ac.uk
6	Healthcare Science Practitioner	University of Brighton	South East	Daren Briscoe	d.briscoe@brighton.ac.uk
6	Healthcare Science Practitioner	University of Hertfordshire	National	Robert Dawson	r.d.dawson@herts.ac.uk
6	Healthcare Science Practitioner	University of Portsmouth	South East	Gavin Knight	gavin.knight@port.ac.uk
6	Healthcare Science Practitioner	University of Sunderland	North East	Rachel Turnbull	rachel.turnbull@sunderland.ac.uk
6	Healthcare Science Practitioner	University of Westminster	London	Crystalla Ferrier	c.ferrier@westminster.ac.uk
7	Senior Leadership	Staffordshire University	National	Maria Feenan	m.feenan@staffs.ac.uk
7	Senior Leadership	University of Hertfordshire	National	Robert Dawson	r.d.dawson@herts.ac.uk
7	Senior Leadership	University of West of England	South West	Simon Flenley-Pond	simon2.flenley@uwe.ac.uk

UNIVERSITY COURSES

NHS England South West

- Bournemouth University
- Cardiff Metropolitan University
- Oxford Brookes University
- Portsmouth University
- Solent University
- University of Bedfordshire
- University of Gloucestershire
- University of Plymouth
- University of Reading
- University of Surrey
- UWE (University of the West of England)



Click here for a full list of IBMS Accredited Undergraduate UK courses

NHS England South West

- **Bournemouth University**
- Cardiff Metropolitan University
- Oxford Brookes University
- Portsmouth University
- Solent University
- University of Bedfordshire
- University of Gloucestershire
- University of Plymouth
- University of Reading
- University of Surrey
- UWE (University of the West of England)

Bournemouth University

Liaison Officer: Dr Anna Mantzouratou

Awards:

BSc (Hons) Biomedical Science

Biomedical science is a rapidly growing area of study and graduates are highly sought after by a diverse range of organisations, not only medical, but those involved in other scientific and related technical research and development.

We expect most of our graduates will want to progress their particular area of interest, either by making an original contribution to knowledge in their field by further postgraduate study, or by working in a diagnostic, pharmaceutical or research organisation.

On this course you will be taught by a range of staff with relevant expertise and knowledge appropriate to the content of the unit. This will include senior academic staff, qualified professional practitioners, demonstrators, technicians and research students. You will also benefit from regular guest lectures from industry.

NHS England South West

- Bournemouth University
- **Cardiff Metropolitan University**
- Oxford Brookes University
- Portsmouth University
- Solent University
- University of Bedfordshire
- University of Gloucestershire
- University of Plymouth
- University of Reading
- University of Surrey
- UWE (University of the West of England)

Cardiff Metropolitan University

Cardiff Metropolitan University

Liaison Officer: Dr Victoria Bradley

Awards:

BSc (Hons) Biomedical Science
BSc (Hons) Healthcare Science
Also courses available including Blood Sciences, Infection Sciences, Cellular Sciences or Genetic Sciences

The BSc (Hons) Biomedical Science degree at Cardiff Met is professionally accredited by the Institute of Biomedical Science and the Royal Society of Biology and is designed to enable students to develop, integrate and apply scientific knowledge, understanding and skills to the multi-disciplinary investigation of human disease and disorders, such as diabetes, cancer and cardiovascular disease.

The professionally accredited BSc (Hons) Healthcare Science degree at Cardiff Met is specifically designed to enable students to develop, integrate and apply scientific knowledge and skills to the multi-disciplinary investigation of human health and disease. With elements of work-based training incorporated into every year of the programme, it is carefully tailored to prepare graduates for a career in the NHS.

- Bournemouth University
- Cardiff Metropolitan University
- **Oxford Brookes University**
- Portsmouth University
- Solent University
- University of Bedfordshire
- University of Gloucestershire
- University of Plymouth
- University of Reading
- University of Surrey
- UWE (University of the West of England)

Oxford Brookes University

Liaison Officer: Dr David Meredith

Awards:

BSc (Hons) Biomedical Science
BSc (Hons) Applied Biomedical Science

The BSc (Honours) degree in Biomedical Science is accredited by the Institute of Biomedical Science. The degree studies how the human body works and you'll discover how our growing knowledge is helping scientists and clinicians to understand, detect, manage, and treat diseases.

The knowledge you'll acquire during the degree will prepare you for a broad range of scientific careers. The degree is well suited to supporting career progression within the NHS, such as a Biomedical Scientist. The course also is a strong starting point for careers in clinical, research or medical areas, and for entering scientific roles in various industries. The academics are expert researchers in varying subjects linked to bio-medicine, like molecular drug delivery systems.

Our strong links with employers such as the Oxford hospitals and bioscience companies enhances your learning and prepares you for employment after graduation. If you choose to study with a sandwich year, you will be supported seeking a placement in a bioscience company, research laboratory or in an IBMS-accredited hospital training lab.

NHS England South West

- Bournemouth University
- Cardiff Metropolitan University
- Oxford Brookes University
- **Portsmouth University**
- Solent University
- University of Bedfordshire
- University of Gloucestershire
- University of Plymouth
- University of Reading
- University of Surrey
- UWE (University of the West of England)

Portsmouth University

Liaison Officer: Mr Gavin Knight

Awards:

BSc (Hons) Biomedical Science
BSc (Hons) Applied Biomedical Science Apprenticeship Pt*

Biomedical scientists help identify rare diseases, diagnose disease, research disease processes and monitor patients' treatment. On this accredited BSc (Hons) Biomedical Science degree, you'll develop the expertise you need to start making your own contribution to the medical advances of the future.
This course is accredited by the Institute of Biomedical Science (IBMS) – a mandatory requirement if you want to work in the NHS after graduation. It's also accredited by the Royal Society of Biology.

This programme has been accredited by the Institute of Biomedical Science (IBMS) and the Royal Society of Biology, following an independent and rigorous assessment. Accredited degree programmes contain a solid academic foundation in biological knowledge and key skills, and prepare graduates to address the needs of employers. The accreditation criteria require evidence that graduates from accredited programmes meet defined sets of learning outcomes, including subject knowledge, technical ability and transferable skills.

** Course has an accredited biomedical science apprenticeship route.*

- Bournemouth University
- Cardiff Metropolitan University
- Oxford Brookes University
- Portsmouth University
- **Solent University**
- University of Bedfordshire
- University of Gloucestershire
- University of Plymouth
- University of Reading
- University of Surrey
- UWE (University of the West of England)

Solent University

Liaison Officer: Dr Amr Abdelgany

Awards:

BSc (Hons) Biomedical Science

Biomedical scientists are at the forefront of diagnosing and treating diseases. Our IBMS-accredited degree will give you the lab and research skills to help drive modern medicine.

Our expert teaching teams will help you to develop the skills required to succeed in biomedical science. You will be supported to develop practical and analytical skills, exploring the latest technologies and experimental treatments. You'll learn to undertake biomedical science research that can lead to the development of new diagnostic procedures or therapeutic intervention strategies. You'll also look at the way that advances in technology can support the self-management of health.

Throughout this Institute of Biomedical Science (IBMS)-accredited course you will have the opportunity to study in our bespoke laboratory facilities. These have been created specifically to support small groups of students as they build their portfolio of lab experience. Your competency will be developed through practical classes and reinforced by our virtual learning environment. Professional development and reflective practice assignments ensure that you are able to apply what you have learnt.

- Bournemouth University
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- Solent University
- **University of Bedfordshire**
- University of Gloucestershire
- University of Plymouth
- University of Reading
- University of Surrey
- UWE (University of the West of England)

University of Bedfordshire

Liaison Officer: Dr Anna Furmanski

Awards:

BSc (Hons) Biomedical Science

Our Biomedical Science BSc (Hons) provides a solid grounding in the laboratory sciences used to research, diagnose and treat disease. You gain an in-depth understanding of how the human body works, studying the molecular, cellular and organ-level processes that take place in the human body and the pathological changes that occur in disease. You also explore advances in areas such as biotechnology and medicine, and the impact they have on treatment and scientific research.

The course is accredited by the Institute of Biomedical Sciences (IBMS), ensuring it delivers the scientific education, skills and training needed to follow a career as a professional biomedical scientist.

- Bournemouth University
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- Solent University
- University of Bedfordshire
- **University of Gloucestershire**
- University of Plymouth
- University of Reading
- University of Surrey
- UWE (University of the West of England)

University of Gloucestershire

UNIVERSITY OF GLOUCESTERSHIRE

Liaison Officer: Dr Lynsay Cooper

Awards:

BSc (Hons) Biomedical Science

Biomedical Science is at the forefront of pioneering advances in medicine. In our leading-edge laboratory facilities set in the heart of our historic campus, you'll explore this vibrant field, joining our Biosciences group – ranked 1st nationally for student experience by the Guardian and The Times University League Tables 2022.

Designed in collaboration with NHS clinical laboratories and accredited by the Institute of Biomedical Science (IBMS), the course will take you through a series of health laboratory challenges led by both academic and NHS staff, training you in the diagnosis, monitoring, treatment and prevention of disease. With a focus on practical exploration and assessment, these exercises will build your capability and confidence to undertake your own laboratory research.

You'll also have the opportunity to develop your skills and employability through work-based modules, ranging from short internships to year-long placements. For students wishing to become Registered Biomedical Scientists, a placement year in UKAS accredited NHS hospital laboratories will enable you to complete your IBMS Registration Training Portfolio.

- Bournemouth University
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- Portsmouth University
- Solent University
- University of Bedfordshire
- University of Gloucestershire
- **University of Plymouth**
- University of Reading
- University of Surrey
- UWE (University of the West of England)

University of Plymouth

Liaison Officer: Dr Tracey Madgett and Dr Lynn McCallum and Dr Paul Laurance-Young

Awards:

BSc (Hons) Biomedical Science
BSc (Hons) Biomedical Science with Integrated Foundation Year

Experience research-informed education by exploring the scientific basis of human health, disease and therapeutics. You'll benefit from a rich and varied learning environment that highlights recent developments and examines how these inform clinical and diagnostic practice. Receive the input of internationally-recognised researchers and NHS staff and open up a range of employment opportunities in both industrial and public research laboratories.

You will stand out with a degree accredited by the Institute for Biomedical Science (IBMS) and benefit from an option to transfer to BSc (Hons) Applied Biomedical Science at the end of your second year, complete a yearlong NHS placement and work as a professional NHS Biomedical Scientist. You will enjoy our unique open access laboratory and resource centre designed for students studying science and engineering courses and have the opportunity to experience more with an optional placement year.

NHS England South West

- Bournemouth University
- Cardiff Metropolitan University
- Oxford Brookes University
- Portsmouth University
- Solent University
- University of Bedfordshire
- University of Gloucestershire
- University of Plymouth
- **University of Reading**
- University of Surrey
- UWE (University of the West of England)

University of Reading

Liaison Officer: Dr Mike Fry

Awards:

BSc (Hons) Biomedical Sciences
BSc (Hons) Biomedical Sciences with Professional Experience

Our BSc Biomedical Sciences course was developed in partnership with practising NHS laboratory scientists. All of our lecturers are involved in research and you will be taught by experts in their fields. 90% of our students are satisfied with teaching in BSc Biomedical Sciences (National Student Survey, 2020).

You will learn about the systems that underpin all living organisms from a cellular, tissue, organ and whole body perspective. From this basis, you will study the diseases that affect each area and the mechanisms that the body uses to combat them. The flexible nature of the course will then allow you to pick specialist modules that match your interests. You will also have the chance to carry out a year-long industrial placement or a paid vacation studentship in order to gain valuable work and research experience.

NHS England South West

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- University of Gloucestershire
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- **University of Surrey**
- UWE (University of the West of England)

University of Surrey

Liaison Officer: Dr Alison Cottell

Awards:

BSc (Hons) Biomedical Science

In your first year, you'll study topics that are fundamental to biomedical science, including bacteriology, biochemistry, cell biology, genetics, human physiology, microbiology and physiology, ensuring you have a solid foundation upon which to build the rest of your degree.

During your second year, you'll explore analytical biochemistry, pathology and virology. You'll also have the option to study pharmacology, to gain an understanding of the effect drugs have on the various systems in our bodies, or microbial communities, learning about antimicrobial resistance and biofilms.

In your third year, you'll select two modules, exploring topics such as advanced pharmacology, circadian rhythms, immunology, microbial sciences and toxicology. You'll study these alongside compulsory modules investigating cancer pathogenesis and treatment, the epidemiology of infectious diseases, our immune system and immunohaematological diseases, and pathogen interactions. You'll also get the opportunity to work alongside a supervisor to conduct your own scientific research project, performing experiments, and critically evaluating data and literature.

NHS England South West

Bournemouth University

Cardiff Metropolitan University

Oxford Brookes University

Portsmouth University

Solent University

University of Bedfordshire

University of Gloucestershire

University of Plymouth

University of Reading

University of Surrey

UWE (University of the West of England)

UWE University of the West of England

UWE Bristol University of the West of England

Liaison Officer: Dr Lynne Lawrance and Dr Chris Moore

Awards:

BSc (Hons) Biomedical Science
BSc (Hons) Biomedical Science with Foundation Year

To diagnose and treat diseases effectively, we need to understand the biology of disease and the science underpinning it, as well as the latest advances in medical science.

The strong analytical, problem-solving and communication skills this discipline requires makes biomedical scientists highly sought after in fields such as medical research, consultancy, education and management.

Benefits of a New Apprentice in your Laboratory

Explore the Benefits of Apprenticeship

Apprenticeships can help to create a sustainable career

Build your Business Case

Apprenticeship levy will pay for the tuition costs of the apprenticeship, but you will need to consider how to fund their salary. Plans can include recruit to a vacancy, pay the apprentice annex 21 and utilise the remaining salary costs for backfill or develop a business case for a rolling programme of training posts

Select an Education Provider

The SW use a range of providers that are listed on: https://www.gov.uk/employers-find-apprenticeship-training

Entry Criteria

Potential apprentices must have Maths and English at grade C/4 or above or functional skills Level 2. Ensure you are aware of any other specific entry requirements required by the provider

Advertise Your Apprenticeship

Recruit internally, externally and direct from local schools and colleges

Apprentice Selection

Employers interview potential apprentices and need to ensure they meet employer and course entry requirements. The apprenticeship provider can jointly interview with the employer.

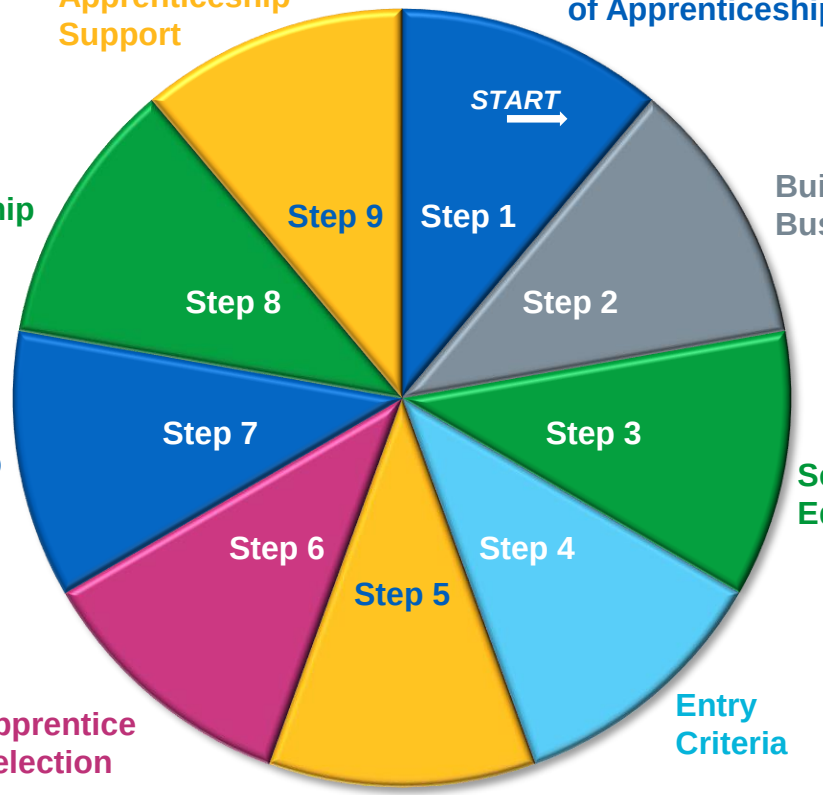
Access Apprenticeship Levy

Contact your Trust apprenticeship lead who will advise you on the levy. **Click here** for more details on the apprenticeship levy

Start the Apprenticeship Programme

Apprenticeship Support

Support the apprentice with an induction and mentor programme. Regular progress and planning meetings and set training goals. Provide regular feedback and assessment.



*Please note this is for guidance only and the process may vary depending on your Trust and apprenticeship provider

BENEFITS OF A NEW APPRENTICE

Benefits of a New Apprentice in your Laboratory

76% of employers say apprentices **boost productivity**

Apprentices often provide **better value** than graduates with **increased loyalty, enthusiasm and motivation**

Apprentices are a really **cost-effective** way to hire and train staff and can **aide staff morale**

They can be **trained in basic lab functions** rapidly and become an extra pair of hands to release other staff

Apprenticeships are paid experiences that often **lead to full-time employment**

Apprenticeships tap into the local population which often means they are more likely to **stay in the area once qualified** - they will have a qualification that is **tremendously valuable**, to them individually and to you as an employer

HM Government Apprenticeships

Gov.uk Apprentice **Pay and Conditions**

Find Apprenticeship Training For Employers

The 4 different levels of apprenticeship:

Trusts have an **Apprenticeship Lead** to advise on **Levy** use for course fees.

The department will need to pay a salary if the apprentice is new to your Trust - details in the link to the left.

Many Trusts now offer an **enhanced rate** to attract the best candidates – discuss this with your Director of Finance.

Apprenticeship	Level
Degree	6 or 7
Higher/foundation	4 or 5
Advanced	3
Intermediate	2

The employer interviews apprenticeship candidates alongside the provider and has direct input into choosing suitable candidates.

Further questions contact:

Louise Jefferies, Regional Pathology Workforce Lead
NHS England South West
england.swdiagnostics@nhs.net

Information for Managers – T Levels

Offering a T Level placement gives you early access to the brightest young people entering the market and the opportunity to develop your workforce of the future.

Click here to read about

T Levels: Industry Placements
on the HM Government Website

This **Biomedical Scientist Careers Pathway** booklet was created by:

Martyn Hicks MSc Csci FIBMS
Regional Pathology Apprenticeship and Educational Lead | NHSE SW *(no longer in post)*

and

Louise Jefferies MSc FIBMS
Regional Pathology Workforce Education Lead | NHSE SW
l.jefferies1@nhs.net

with

Brian Orman MSc
Senior Project Manager | SCWCSU

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