

## Studying healthcare science

This page provides an overview of what to consider if you are thinking about a career in healthcare science, what you can expect during training and your next steps, once qualified.

Healthcare science staff help prevent, diagnose and treat a wide range of medical conditions. They may work directly with patients or in a supporting role. Healthcare science covers a range of jobs in four broad areas:

- physiological sciences [1]
- life sciences [2]
- physical science and biomedical engineering [3]
- clinical bioinformatics [4]

## Applying to train in healthcare science

There are a number of routes into a career in healthcare science. These include:

- apprenticeships at levels 2 and 4 for healthcare science assistants and associates [5] respectively
- the undergraduate NHS Practitioner Training Programme (PTP [6]) - available as a full-time degree (see below) and increasingly, as an apprenticeship at level 6
- the graduate-entry NHS Scientist Training Programme [7] (STP [8]) is for graduates with a relevant degree in science or engineering
- Higher Specialist Scientist Training [9] for registered and experienced clinical scientists

Take a look at our diagram [10] which sets out the different healthcare science career and training pathways.

Find out exactly what is required for your chosen courses and get organised as soon as possible.

Find out more about healthcare science apprenticeships on the National School of Healthcare Science website [11]

## NHS Practitioner Training Programme

?The PTP [6] leads to an approved and accredited degree in in one of five themes of healthcare science:

- cardiovascular [12], respiratory [13] and sleep sciences (cardiac physiology [14], respiratory and sleep sciences [15])
- neurosensory sciences (audiology [16], neurophysiology [17], ophthalmic and vision science [18])

- pathology sciences (blood sciences [19], infection sciences [20], cellular sciences [21], genetics science [22])
- medical physics (radiotherapy physics [23], radiation physics [24], nuclear medicine [25])
- clinical engineering (medical engineering [3], radiation engineering, renal technology [26], rehabilitation engineering [27])

Use our course finder to search for approved healthcare science degree courses [28].

Applications for first degrees are made through UCAS [29].

Search for degree apprenticeship vacancies in healthcare science on the NHS Jobs website [30] and the Government's Find an apprenticeship website [31]

Find out more about the PTP on the National School for Healthcare Science website [32].

## Entry requirements

Entry requirements for healthcare science degree courses vary because each university sets its own entry criteria. You are likely to need two or three A-levels (or equivalent level three qualifications) including one or two science subjects or maths, plus supporting GCSEs. Contact universities directly to find out whether qualifications equivalent to A-levels and GCSEs are acceptable. Our course finder [28] lists accredited degrees in healthcare science.

- Your application

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Some universities will expect you to attend an interview. When applying, you will need to demonstrate that you have found out what healthcare science staff do and understand what the work involves. This is possible through relevant experience. Experience in any healthcare or laboratory setting (if the area of science you are considering is laboratory based) would be useful, but if you can gain it in the area of healthcare science that interests you, so much the better. Work experience placements can be difficult to find, so alternatives would be to shadow a healthcare scientist or talk to a healthcare scientist about their role.

The UCAS website [33] allows you to search for courses and view entry requirements. More detailed information about specific courses can be found in university prospectuses and on their websites.

Degree apprenticeships at level 6 in healthcare science are available in an increasing number of healthcare science disciplines. Visit the National School of Healthcare Science website [11] for more information. Search for apprenticeships on the NHS Jobs website [30] and the Gov.uk website [31]

There are other routes into careers in healthcare science, including the Scientist Training Programme [7] (STP [8]) for graduates of relevant subjects.

- Recruiting for values

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If you're applying for a university programme leading to a role providing NHS healthcare, you'll be asked to show how you think the NHS values would apply in your everyday work.

Find out more about NHS values. [34]

- Your training in healthcare science

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The PTP [6] taken as a full-time course takes three years. It integrates academic learning with 50 weeks of workplace-based training. In the first year, training is broad, and in the second and third years you specialise in the areas of interest to you.

Approved courses must meet certain standards but programmes vary in their content, the way they are structured, and how they are taught and assessed. The facilities available and amount of support and supervision may also differ from course to course.

Find out more by looking at university websites and prospectuses, attending university open days and contacting admissions staff.

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### **Support at university**

See our information about the support available [35] while on your course.

- What happens after training?

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After passing the PTP [6], you can apply for work as a healthcare science practitioner or, if you have a 2:1 degree or higher, apply for the STP [8] (see above).

Job vacancies for healthcare scientists are advertised on the NHS Jobs website [36]. If you become a member of a professional body such as the Institute of Biomedical Science, you may also find jobs advertised in their journals or on their websites.

Working in healthcare science provides opportunities to work in a range of settings in addition to hospitals, such as in industry, research institutes or community healthcare. You can progress from one grade or band to another.

Healthcare science staff working as biomedical scientists and clinical scientists must register with the Health & Care Professions Council [37]. Other healthcare science staff may be able to join a voluntary register. Healthcare science practitioners completing a PTP [6] programme can join the voluntary register maintained by the Academy for Healthcare Science [38].

To remain registered with the HCPC [39] or another body, you have to maintain the standards set for your profession. This includes taking part in continuing professional development (CPD).

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**Source URL:** <https://www.healthcareers.nhs.uk/explore-roles/healthcare-science/studying-healthcare-science>

### Links

- [1] <https://www.healthcareers.nhs.uk/explore-roles/physiological-sciences>
- [2] <https://www.healthcareers.nhs.uk/explore-roles/life-sciences>
- [3] <https://www.healthcareers.nhs.uk/explore-roles/physical-sciences-and-biomedical-engineering>
- [4] <https://www.healthcareers.nhs.uk/explore-roles/clinical-bioinformatics>
- [5] <https://www.healthcareers.nhs.uk/explore-roles/clinical-support-staff/healthcare-science-assistant-and-associate>
- [6] <https://www.healthcareers.nhs.uk/glossary#PTP>
- [7] <https://www.healthcareers.nhs.uk/i-am/considering-or-university/not-studying-health-related-degree/nhs-scientist-training-programme>
- [8] <https://www.healthcareers.nhs.uk/glossary#STP>
- [9] <https://www.healthcareers.nhs.uk/i-am/working-health/nhs-higher-specialist-scientific-training>
- [10] <https://www.healthcareers.nhs.uk/about/resources/healthcare-science-career-and-training-pathways>
- [11] <https://nshcs.hee.nhs.uk/>
- [12] <https://www.healthcareers.nhs.uk/glossary#Cardiovascular>
- [13] <https://www.healthcareers.nhs.uk/glossary#Respiratory>
- [14] <https://www.healthcareers.nhs.uk/explore-roles/physiological-sciences/cardiac-sciences>
- [15] <https://www.healthcareers.nhs.uk/explore-roles/physiological-sciences/respiratory-physiology-and-sleep-sciences>
- [16] <https://www.healthcareers.nhs.uk/explore-roles/physiological-sciences/audiology>
- [17] <https://www.healthcareers.nhs.uk/explore-roles/physiological-sciences/neurophysiology>
- [18] <https://www.healthcareers.nhs.uk/explore-roles/physiological-sciences/ophthalmic-and-vision-science>
- [19] <https://www.healthcareers.nhs.uk/explore-roles/life-sciences/blood-sciences>
- [20] <https://www.healthcareers.nhs.uk/explore-roles/life-sciences/infection-sciences>
- [21] <https://www.healthcareers.nhs.uk/explore-roles/life-sciences/cellular-sciences>
- [22] <https://www.healthcareers.nhs.uk/explore-roles/life-sciences/genetics>
- [23] <https://www.healthcareers.nhs.uk/explore-roles/physical-sciences-and-biomechanical-engineering/radiotherapy-physics>
- [24] <https://www.healthcareers.nhs.uk/explore-roles/physical-sciences-and-biomechanical-engineering/radiation-physics>
- [25] <https://www.healthcareers.nhs.uk/explore-roles/physical-sciences-and-biomechanical-engineering/nuclear-medicine>
- [26] <https://www.healthcareers.nhs.uk/explore-roles/physical-sciences-and-biomechanical-engineering/renal-technology>
- [27] <https://www.healthcareers.nhs.uk/explore-roles/physical-sciences-and-biomechanical-engineering/renal-technology>

engineering/rehabilitation-engineering

[28] <https://www.healthcareers.nhs.uk/i-am/looking-course>

[29] <https://www.healthcareers.nhs.uk/i-am/considering-or-university/applying-university-through-ucas>

[30] <http://www.jobs.nhs.uk>

[31] <https://www.findapprenticeship.service.gov.uk/apprenticeshipsearch>

[32] <http://www.nshcs.hee.nhs.uk/ptp-join/nhs-practitioner-training-programme>

[33] <http://www.ucas.com/>

[34] <https://www.healthcareers.nhs.uk/about/working-health/nhs-constitution>

[35] <https://www.healthcareers.nhs.uk/i-am/considering-or-university/support-university>

[36] <http://www.jobs.nhs.uk/>

[37] <http://www.hcpc-uk.org/apply/uk/>

[38] <http://www.ahcs.ac.uk/the-register/join-the-register/>

[39] <https://www.healthcareers.nhs.uk/glossary#HCPC>