

# Entry requirements, skills and interests (medical engineering)

There are three entry points into a career in medical engineering.

## Entry requirements

There are three entry points into this area of work:

- [With A-levels or level-3 equivalent qualifications](#)
- [With a relevant degree](#)
- [With experience as a clinical scientist](#)

### **With A-levels or level-3 equivalent qualifications**

With two or three A-levels including science subjects, and a good spread of GCSEs at A-C grade, you can enter the [NHS Practitioner Training Programme \(PTP\)](#) <sup>[1]</sup> by taking an accredited BSc degree in healthcare science (medical engineering). Alternative or equivalent qualifications may be accepted by some universities, but you are advised to check with each university (or visit their website) before making an application. Use our [course finder](#) <sup>[2]</sup> to search for accredited BSc (Hons) healthcare science degrees.

### **With a relevant degree**

You can apply for a place on the graduate-entry [NHS Scientist Training Programme \(STP\)](#) <sup>[3]</sup> for which you must have a 1st or 2.1 either in an undergraduate honours degree or an integrated master's degree in a pure or applied science subject relevant to the specialism for which you are applying.

If you have a 2.2 honours degree or better in any subject, you will also be considered if you have a higher degree\* that is relevant to the specialism for which you are applying.

(\*Higher degree as defined on [page 17 of The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies](#) <sup>[4]</sup> Please note this does not include postgraduate diplomas or postgraduate certificates.)

Because of the extensive variation in degrees available it isn't possible to provide a definitive list of relevant degrees for entry to the STP [5]. For STP [5] positions in the physical sciences and biomedical engineering (which include medical engineering), the most commonly accepted degrees will be in pure or applied physics, engineering or applied mathematics.

For all candidates, evidence of research experience (e.g. in the form of a higher degree or equivalent evidence of scientific and academic capability) is considered desirable.

You need to be sure that you've reviewed the job description and person specification for the training (on the [National School of Healthcare Science's website](#) [6]), and the information on this page. You then need to be sure to match the skills and knowledge required to the content of your degree and the specialism you wish to apply for.

For full details of entry requirements for the STP [5], including qualifications, scientific skills, transferable skills and physical requirements, please see the person specification on the [National School of Healthcare Science's website](#) [7].

### **With experience as a clinical scientist**

With experience as a registered clinical scientist, you can apply for [Higher Specialist Scientist Training \(HSST\)](#) [8].

[Find out more about the training you'll receive and registration for a career in medical engineering](#) [9].

## • **Skills, qualities and interests needed**

To work in medical engineering you'll need:

- an interest in science and technology, a good academic background and an ability to update and test your knowledge against experience
- good communication skills as you may have direct contact with patients who may, for example, be uncomfortable near complex equipment, so you'll therefore need the ability to advise and reassure patients
- to be comfortable using modern technology and complex equipment
- meticulous attention to detail to produce highly accurate work even when under pressure
- good interpersonal skills as you may have direct contact with patients and you must respect their privacy, be sympathetic and have a friendly and professional attitude towards them
- to be able to work as part of a team.

If you work in a role with responsibility for resources (such as staff, budgets or equipment) you'll need excellent leadership skills and be able to use your initiative within the remit of your job role.

If you're applying for a healthcare science role or training position either directly in the NHS or in an organisation that provides NHS services you'll be asked to show how you think the NHS values apply in your everyday work. The same will be true if you're applying for a university course funded by the NHS.

The NHS values form a key part of the [NHS Constitution](#) [10].

[Find out more about the NHS Constitution](#) [11].

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**Source URL:**<https://www.healthcareers.nhs.uk/explore-roles/healthcare-science/roles-healthcare-science/physical-sciences-and-biomedical-engineering/medical-engineering/entry-requirements-skills>

### Links

[1] <https://www.healthcareers.nhs.uk/i-am/considering-or-university/studying-healthcare-science> [2]  
<https://www.healthcareers.nhs.uk/i-am/looking-course> [3] <https://www.healthcareers.nhs.uk/career-planning/study-and-training/graduate-training-opportunities/nhs-scientist-training-programme> [4]  
<http://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf> [5]  
<https://www.healthcareers.nhs.uk/glossary#STP> [6] <http://www.nshcs.hee.nhs.uk/> [7]  
<http://www.nshcs.hee.nhs.uk/join-programme/nhs-scientist-training-programme/important-documents> [8]  
<https://www.healthcareers.nhs.uk/i-am/working-health/nhs-higher-specialist-scientific-training> [9]  
<https://www.healthcareers.nhs.uk/explore-roles/physical-sciences-and-biomechanical-engineering/medical-engineering/training> [10]  
[https://www.healthcareers.nhs.uk/glossary#NHS\\_Constitution](https://www.healthcareers.nhs.uk/glossary#NHS_Constitution) [11]  
<https://www.healthcareers.nhs.uk/about/working-health/nhs-constitution>