Entry requirements, skills and interests (radiotherapy physics)

You can enter radiotherapy [1] physics with A-levels or equivalent qualifications, after a relevant honours degree or with experience as a registered clinical scientist.

MRI control room

Entry requirements

There are three entry points into radiotherapy [1] physics:

- with A-levels or equivalent qualification
- after a degree
- as an experienced clinical scientist

With A-levels or equivalent qualification

With two or three A-levels (including science subjects) and a good spread of GCSEs at A-C grade, you can enter as a healthcare science practitioner, through the NHS Practitioner Training Programme (PTP) [2]. You can do this by taking an accredited BSc degree in healthcare science (radiotherapy [1] physics). Alternative or equivalent level-3 qualifications may be accepted by some universities, but you are advised to check with each university (or visit their website) before making an application. If you have a first degree in physics, you can also enter the PTP [2] through the graduate diploma in healthcare science on a part-time basis.

After a degree

You can apply for a place on the graduate-entry NHS Scientist Training Programme (STP) [3] 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 [4] 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 radiotherapy [1] physics), 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]). 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].

As an experienced clinical scientist

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

It can be advantageous to have gained some experience of working in a relevant environment before applying for a place on a course or job vacancy. You should always check with the course provider or employer to see what sort of experience is preferred or required.

Find out more about the training you'll receive and registration for a career in radiotherapy physics [9].

- ## Skills, qualities and interests needed

  To work in radiotherapy [1] physics you'll need:

  - effective communication skills
  - an interest in science and technology, a good academic background and an ability to update and test your knowledge against experience
  - good communication skills to be able to liaise with the healthcare team and also 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
  - 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].

Links
[1] https://www.healthcareers.nhs.uk/glossary#Radiotherapy [2] https://www.healthcareers.nhs.uk/i-am/considering-or-university/studying-healthcare-science [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/radiotherapy-physics/training [10] https://www.healthcareers.nhs.uk/glossary#NHS_Constitution [11] https://www.healthcareers.nhs.uk/about/working-health/nhs-constitution