

## Frequently Asked Questions - SMPCETS Open Day

Question	Answer
Can we apply in our third year of Uni?	You can apply at the end of your third year, with a view to starting a few months after you have graduated. Posts cannot be held open for a full year though. The MSc begins in September on a yearly basis. The current applications are for the 2023 trainee cohort, which will start the MSc in Sept 2023.
Do international applicants need to update their visa status before the interview or after?	It is our understanding that NHS Scotland can help with visa sponsorship (skilled worked visa) in anybody who is shortlisted and is offered a place after interview, but it is likely to be easier if you have a valid visa to commence with. Please discuss this with NHS Grampian HR, and also ensure that qualifications listed in your application are ENIC approved (i.e. recognised by the UK).
How many training places are available?	There are six training places in Medical Physics available, and one training place in Clinical Engineering available. Medical Physics places are likely to be 1xHighland, 1xGrampian, 1xTayside, 1xLothian, 2xGGC. The Clinical Engineering place will be at Edinburgh SMART (Rehab Engineering).
Are you based in the same location for the whole of the training programme, or are you expected to 'move around' a lot?	For the MSc, trainees are based either in Glasgow (MP), Aberdeen (MP), or Strathclyde (CE), and then for the foundation year and specialism training the base will be the host hospital – which will be agreed during the recruitment process. The foundation and specialism training will largely occur at the same place, with very occasional minor placements elsewhere. In practice, it means that you could rent or buy a property close to your host hospital and be based there for almost all of your hospital-based training.
I am currently studying an MSc biomedical eng at Strathclyde, however I'm really interested in the CE programme. Would I have to do a different masters or jump the first year?	If you hold an IPEM accredited MSc or MEng then you would be eligible to enter directly into the Foundation Year – i.e. no need to repeat the MSc.
The declaration at the end of the application form suggests that applicants requiring a work visa sponsorship will only be considered if no suitable UK or EEA nationals are identified. Given the competition for these posts, has such an application been successful in recent	Overseas applicants have not been appointed recently - for the reasons you state. However, NHS Grampian has confirmed that visas with NHS sponsorship would be possible.

years?	
When will we know the final number for MP & CE positions? And will we know which centres/specialties they will be for before applying?	There may possibly be one extra post available (in addition to the 7 already mentioned) but we won't know about that until much closer to the interview dates. All of those who make it to interview will be given a choice of where they would like to be based, although those who are quite restrictive with this are likely to face greater competition. The final specialisms are not defined from the onset of the training – you will usually pick your final specialism at the end of the Foundation Year.
When does it open to apply?	The application process is open now – closes on 16 <sup>th</sup> Feb 2024.
If you do not make it onto the programme but decide to do a Medical Physics MSc outside of the programme, would you be able to go into a job after doing this separate MSc?	The MSc alone may help, although many of the jobs prefer somebody with HCPC registration. There are posts available where 'in service' training can be done. The MSc would also strengthen your case for a future year applying to the scheme, and if you hold the MSc then you can move directly into the Foundation year if successful at interview. The MSc alone will not guarantee you a training place in future years, but it may help your application as it will give you wider experience in MP.
Does NHS Scotland have summer internships this year? I would like to get experience after my third year.	<p>Internships are rarely offered nowadays since those that can financially afford to give up their time to do them get an advantage. They are not commonly offered any longer, and if they are then they are rarely longer than 2 weeks in duration. In normal circumstances, short visits are accommodated but these have been difficult to provide in the past 2 years. Departmental visits are typically facilitated on an ad hoc basis.</p> <p>Keep an eye on the SMPCETS website though, as opportunities are posted. There is currently a job vacancy being advertised for a short-term MRI data analysis job at University of Dundee which would provide employment and also deliver further experience for the postholder.</p>
Could you please add the link of registration?	Link at <a href="https://www.smpcets.scot.nhs.uk/?page_id=704">https://www.smpcets.scot.nhs.uk/?page_id=704</a>
Is there an opportunity to pursue a PhD after completing the medical physics course. Still being a medical physicist?	Yes – PhD's can be done in-post (after completion of training), subject to funding being available.
What are my options in the event that I am unsuccessful with my application?	<p>The situation is difficult with current lack of training places, and it is understood that you cannot just 'put your career on hold'. A few suggestions would be to look for NHS employment as a MP or CE technician, or even in a different area such as a department assistant in Clinical Radiology. You may find that getting 'into the NHS' can provide you with a useful stepping stone to a career as a clinical scientist in future years.</p> <p>You could also do an MSc or a PhD if funding can be identified, as these post-graduate qualifications would probably provide you with useful</p>

	<p>career development in themselves.</p> <p>You could keep a look out for 'direct entry' posts into MP or CE, as sometimes these are advertised. In this situation, you would probably be expected to train 'in-service' and work towards STP equivalence as part of your job.</p> <p>It is hoped that in future years it will be possible to advertise for more training posts than is currently the case.</p>
Is there any scope to do research projects as well as your day to day work?	Yes – plenty of scope to do clinical development, innovation, R&D, but patient services are prioritised.
I'm a January start in my MSc which means I'll be finished in January, can I still apply for this? Or because the scheme starts in September I am not eligible as I would still be a student?	If you are due to finish in Jan 2024, then you could apply for the 2024 intake.
What job positions are offered to someone with only an MSc in Medical Physics? Also could you explain the HCPC registration process after the 3 year program? Is it an exam?	If you have the MSc only (and are not successful with the SMPCETS application) then you may wish to look for a direct entry post. If you are successful in applying for the scheme then you would be able to go into the FY directly. At the end of the 3.5 years you are asked to attend a viva exam with AHCS, and also submit a portfolio of evidence that maps to AHCS Good Scientific Practice. This process is referred to as 'STP equivalence'.
What are the recommendations for an unsuccessful applicant? I assume applying every year, but is there anything specific that should be sought out to improve chances between applications?	The best advice I can say is do continue to develop your career as far as you can and explain how you feel that you have improved. If you have received any feedback or professional advice over the last few years then it may be worthwhile explaining how you have sought to act upon it.
How would you go about getting HCPC registered if you did not get it via the SMPCETS?	You can apply for a direct-entry post into Medical Physics, and then apply to the AHCS after you have built up enough work experience. This is known as 'in-service' training, and essentially gets you to the same place as trainees who are on the scheme. It requires a bit more thought from supervisors and employers though – to give you time in your job to build up training experience. It can be done though (we have an employee in CE going through this at the moment).
Is there nuclear medicine therapy in Aberdeen? And do trainees have the opportunity to be involved?	Yes, radioiodine and MIBG therapies are currently done in Aberdeen, and there is a plan to introduce Lu-177 therapies with PSMA and Dotatate. Trainees are expected to be involved in all aspects of the therapies including the radiation protection aspects, the imaging and dosimetry and involvement in the administration.

Is there a software skill in particular that you would advise us to develop to stand out a bit more in the application process?	Not particularly. You will gain experience from certain IT skills via your BSc or BEng. In general and increasingly, software skills are important for a career in STEM, i.e., it is a really important skill-set beyond just Medical Physics and Clinical Engineering. Once you have learned one language then it is much easier to pick up another as and when you need it.
Are there third parties involved in the Design and Development side of the CE? Or just the NHS engineers?	Yes, it is common to collaborate with third parties. 'Bread and butter' work includes projects with clinical and non-clinical colleagues in the NHS (doctors, nurses, AHPs, eHealth), but also work with academic and industrial partners as and when needed.  It varies a lot depending on the size and type of the project. For example, one recent MDU project was to add a filter to a chest drain to minimise the risk of spreading aerosol (and Covid) when used. That project was developed entirely by NHS engineers and scientists working with clinical colleagues.  At the opposite end of the scale, a new type of functional imaging of the eye is being developed. This is a much bigger project involving NHS engineers and scientists, doctors, academic and industrial partners. There is more information on the MDU website. Each project usually has a pragmatic balance over where the design work is done.
How involved is a radiotherapy medical physicist in identifying tumour sites in scans? I know there's been a big shift towards machine learning/AI in microscope image analysis – I wondered if this is something you're interested in in radiotherapy treatment planning or if this is something that's already underway?	Within RT, the patients come for their planning CT scan. The clinicians will outline the tumour volumes on these which are discussed at MDT/peer-review meetings before being approved for planning. Medical Physicists then grow the planning volumes from those outlined by the medic. These volumes will have specific growth margins for each treatment site. There is a small research team interested in analysing images automatically etc. It is inevitable that parts of the RT physics work will move more into the AI world.
Does the majority of the clinical scientist work in this area stay with the planning of the treatment and QA work, or does the workload extend to patient facing scenarios/delivery of the treatments?	Workload doesn't generally extend to patient facing scenarios/delivery of treatment. That is more the radiographer's role. Medical Physicists do interact with the radiographers on a daily basis.
With the new MRI machine being commissioned, are there	The plan is to use the MRI images in conjunction with CT images. The patients will be scanned in the same position for both scans, the images will be fused together to allow for better delineation of the

plans for moving from CT scans to MRI scans for treatment planning at the Beatson?	tumour and critical nearby organs at risk.  This is an interesting example, as you can see where Radiotherapy, MRI and Diagnostic Radiology expertise is all important – working together.
Are you going to share all presentations at a later stage?	All the presentations are going to be posted at <a href="https://www.smpcets.scot.nhs.uk/">https://www.smpcets.scot.nhs.uk/</a>
There is a provision that this programme will give the opportunity to study Masters at any university. If in case an international student gets an offer, would this training programme cover the tuition fees at international rate for the master programme?	No, we only cover the MSc fees for the 3 degrees - Medical Physics – Aberdeen and Glasgow, Clinical Engineering – Strathclyde.
Do you use OpenSim for analysing a patient's gait? If not, could I ask what biomechanical modelling software you use?	WestMARC (Glasgow Rehabilitation Centre) use Vicon Nexus  OpenSim is not used in clinical practice. The Plug in gait model is currently used, and would probably need to shift to a model that could apply inverse kinematics to before any OpenSim models could be run. This is something may be explored for research purposes. Vicon's Nexus software is used for all modelling and processing.
Would MSc fees be paid at the international rate?	Yes, international applicants would need their MSc fees to be paid at the international rate.
Does the foundation year start in September? If yes since the MSc programme ends in January what will we be doing between the start of the foundation year? Are there any fees for that?	The MSc teaching goes on until April, and then there is a hospital project from May through to August. The FY then starts in September.  All FY starts in September, so if you are doing an appropriate accredited MSc now that started in January 2024 and ends in January 2025, you would apply next January for the September 2025 start.  It is paid for by NES for UK based trainees. If you are an international trainee then we will need to check the exact details, but this will not affect the short-listing process for interview (this is done in fully blinded fashion).
Is there any statistic on what percentage of people get accepted to the interview stage in medical physics?	Last year 91 applications for 1 place. Typically around 20 people are interviewed for MP and 10 for CE, but this will vary on a yearly basis.
I am currently studying the MSc Biomed Eng in Strathclyde. Is there any preference in what	The short answer is “no”. The longer answer is look for a project that you personally find interesting, or one that might expand your skill-set. People who have a genuine interest and curiosity about their work are the most content – so working on a project that you are personally

project I undertake for the CE trainee positions?	interested in is recommended. Think about expanding your skill-set, i.e. if you are quite strong in mechanical and electronic engineering disciplines then you could look for a project that would require you to develop some software skills or vice versa.
In which of your placements did you find you had the most patient interaction? And how much flexibility do you have in choosing an acquaintanceship?	Nuclear medicine placements tend to involve the most patient interaction since the clinical scientist attends appointments to administer iodine therapy which can involve in depth discussions about radiation protection issues. Arrangements might be a little different in the other centres but you could likely discuss things with your training coordinator if you have a particular interest.
For an international student, do we need to add any specific details in our application? Also how would a certificate of sponsorship work?	It is recommended that you apply in the same way as everybody, and make sure that your qualifications are recognised. If you are shortlisted then we would take this up with NHS Grampian. We do not have specific details of how the sponsorship works, but colleagues in recruitment at Grampian have confirmed that this should be possible. Otherwise, your application should just make it clear that you know and understand what you are applying for and explain why you are the correct person for one of the posts.
How much programming is involved during the training?	The MSc at Glasgow University teaches "Programming for the Clinical Scientist" which gives foundations on to use Python. It depends on what projects happen to come up during your training. Programming skills during the foundation year and specialism training can be useful.
Do research outcomes/experiences derived from the Innovation Project (or other research stages of the training) lead to scientific articles or other publications?	Yes it can do. The results of the innovation projects are expected to be presented at a national meeting in Glasgow at the end of the specialism year, and if it is publishable work then this would be encouraged. The innovation projects are really interesting every year.
Is it only NHS Grampian that takes recruits in? Or would I have other NHS boards as an option too?	The application is done centrally through NHS Grampian, but the same application covers all of the health boards part of the training scheme across Scotland.
Did you go into the training scheme thinking you'd want to specialise in a particular area or did that change after the FY placements?	Trainees are usually encouraged to keep an open mind about what they wish to specialise in during the early phase of training (at least until towards the end of the FY). Your choice of specialism will result from a discussion with your training coordinator or head of department, and this will be a fair process. Nobody is forced into doing a specialism that they don't wish to tackle.
From what scheme does radiographer specialism come from?	That is a different profession. To become a radiographer it is best to do a degree in radiography and then that will give you a chance to do hospital based training.  If you are interested in a career in radiography best to look at this type of degree

	<a href="https://www.gcu.ac.uk/study/courses/details/index.php/P01640/Diagnostic_Imaging">https://www.gcu.ac.uk/study/courses/details/index.php/P01640/Diagnostic_Imaging</a>
What is the difference between the role of the CE in DRM&G and a clinical technologist working in medical device management?	Clinical Technologists in the workshops tend to have the day to day demands of maintaining and repairing medical devices and supporting clinical teams in that way. Clinical Engineer trainees tend to spend a bit more time with the Workshop managers tackling the bigger replacement projects, and slightly more quality-improvement projects across various clinical teams, rather than day to day repair and maintenance.
How common is it to receive experienced industry non-healthcare professionals as applicants that are transferring from other Engineering Fields (Energy –Nuclear/Oil&Gas) as clinical engineering trainees?	Applications from industry non-healthcare professionals are received annually, although they are not 'common'. With these applications it would be important to identify transferrable skill-sets, and also to show that you have developed some experience/knowledge of MP and CE to support your technical background.
Is it certain that you get your choice of specialism?	<p>Trainees are encouraged to use the FY to find out which you enjoy the most. The choice of specialism varies from centre to centre, but choices are almost always accommodated. RT tends to be easier to agree, due to the number of jobs, and MRI jobs are relatively scarcer.</p> <p>A post at the end of the training period is not guaranteed and the means by which a specialism is chosen varies slightly depending on which centre is your main department (e.g. Lothian, Glasgow, Aberdeen etc).</p> <p>A few other things need to be including: e.g. departmental capacity to support training in your specialism area, and longer-term departmental employment needs (if lots of vacancies are projected to occur in nuclear medicine, then training in that area would be prioritised).</p>
Can we do more than one specialism?	Recently we have started to introduce certain blended specialisms, in cases where the local workforce need arises. Examples of this have been RT with a component of DR/RP, RT with a component of MRI etc. Note that these are NOT 'dual specialisms' since the trainee still qualifies as a specialist in a single area. The training programme just provides a little wider experience to cover some training in an alternative area when required by the local clinical service. The 'blended' part of the specialism can often be contained within the innovation project – for example we have had one trainee recently who did a Nuclear Medicine specialism, but undertook an MRI innovation project as part of this training. Discussion about choice of specialism will usually happen towards the end of the Foundation Year.

