

MODERN APPRENTICESHIP

Mechanical Engineering

Assistant Practitioner Clinical Technologist - Clinical Physics and Bioengineering

Post Reference: 0000045724A

Closing date: 3 pm 31ST January 2017





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THE MODERN APPRENTICESHIP PROGRAMME

The current vacancies for the Assistant Practitioners - Clinical Technologists (Medical Devices Unit) apprenticeships are only open to those applicants aged 16-24 years in line with NHS Greater Glasgow and Clyde's Youth Employment Plan and workforce projections.

In order to apply you must already have a minimum of

• Five National 5's at Grade A to C, three of which must be Maths, English and a Science or Technical Subject

Or

an NC in an appropriate technical discipline at SCQF level 6 (or equivalent)

In year 1 of your apprenticeship you will attend College on a full time basis to undertake a NC in Mechanical Engineering

In years 2 and 3 you will attend college on a day release basis to undertake a HNC in Mechanical Engineering and an SVQ level 3 in Mechanical Manufacturing Engineering (Fitting and Assembly)

If you already hold these qualifications please apply for other NHS GGC Health Science Services Vacancies – <u>click here</u>

- Applications are considered on a competitive basis which means not all candidates
 who submit an application will be guaranteed an interview. Shortlisting will include
 meeting the minimum educational qualifications for application along with
 evaluation of the Supporting Statement within your application form.
- Please ensure that you read the guidance carefully on completing the application form and your supporting statement BEFORE you submit your application. See Page 24
- You should complete and submit your application via the NHS Scotland Jobs Website www.jobs.scot.nhs.uk. In the event you are unable to complete an electronic application then please refer to Page 11 of this Information Pack for guidance

THE MODERN APPRENTICESHIP PROGRAMME

What is a Modern Apprenticeship?

Modern Apprenticeships offer the opportunity of gaining skills and qualifications that will help to start your career. A modern apprentice has the chance to be in paid employment and work towards a recognised vocational qualification at the same time¹.

How long will it last?

This is Fixed Term four year contract and on successful completion of all elements of the NHS Greater Glasgow and Clyde Modern Apprenticeship Programme you will move into permanent employment. During your apprenticeship you are expected to attend regular reviews to discuss your progress and development needs, and are expected to stick to the agreed training plan. This includes attending internal and external training and taking responsibility, with support, to collect the evidence required that proves competence in the job role

Will I be working to a Job Description?

Yes. You will work to the standard **Assistant Practitioner – Clinical Technologist** Job Description with the expectation that you will be supported and trained to carry out all the duties and responsibilities outlined. You would not be expected to perform at Assistant Practitioner level on appointment.

What will I be doing?

The MDU is a multi-disciplinary unit composed of scientists; software, electronic and mechanical engineers; bioengineers and technical staff. MDU staff support innovation projects from inception to completion, including project planning, design, verification, validation and adoption of new medical devices and test equipment to improve patient treatment and care. MDU staff also provide equipment repair, maintenance and calibration services.

The department is one of the largest of its kind in Europe. Its influence covers a large area of the west of Scotland. DCPB is organised around the five services of radiotherapy, imaging, clinical engineering, medical equipment management and core services.

A full outline of the duties is provided in the full job description (attached). The duties will change regularly depending on what work and projects are required within the service.

¹ http://www.skillsdevelopmentscotland.co.uk/our-services/services-for-individuals.aspx

However, in general these tasks will be;

Main duties include:

- Work with other health professionals (surgeons, doctors, nurses, physios, etc) to develop mechanical engineering concepts/ideas that will improve patient treatment and care. Sometimes you will be working on ideas that have never been tried before.
- Design and manufacture mechanical components for bespoke medical devices/equipment. You will use industry standard computer aided design tools and a mix of conventional and digital manufacturing methods including machining, laser cutting, welding and 3D printing.
- Repair/modify and adapt existing mechanical equipment.
- Carry out mechanical checks and maintenance on medical equipment, e.g. Physio equipment, dental drills, radiotherapy equipment.
- Check the accuracy of mechanical hospital equipment.

Where will I be working?

You will be working for the Mechanical Engineering Section within the Medical Devices Unit (MDU). The main base is at the West Glasgow Ambulatory Care Hospital, Yorkhill (WGACH).

Click link to view a location map

Car parking is limited but the WGACH is a short walk from Kelvinhall Underground station with good rail and bus links to Partick Train Station.

There may also be a requirement to spend time in our satellite workshops. Our Radiotherapy support workshop is in the Beatson West of Scotland Cancer Centre, Gartnavel and our dental hand-piece repair laboratory within the Glasgow Dental Hospital and School. In addition the apprentice will visit acute and community health sites within Greater Glasgow and Clyde.

To view travel and other useful information or visit www.nhsggc.org.uk and click on the link for Hospitals & Visiting Times

Who else works in the team?

There are a total of 10 staff in the Mechanical Engineering team, comprising mechanical engineering technologists, designers and workshop managers. You will also work very closely with software and electronic engineers in the MDU.

What type of person are you hoping to recruit?

This role is suitable for someone who has an interest in design or technology, an enquiring mind with an aptitude for problem solving and an interest in understanding how mechanical components work.

You should have good manual dexterity and hand-eye co-ordination with excellent attention to detail, good communication and a strong team work ethic.

A modern apprenticeship isn't just about working; you need to be committed to learning too. During this period you would be expected to work as a member of our staff but also work towards SVQ qualifications and an HNC in Mechanical Engineering. As well as working you will be required to agree to a training / development plan and attend meetings with trainers, assessors and verifiers as required.

In addition whilst undertaking year one of the programme you will be required to attend Glasgow Clyde College on a full time basis and on a day release basis in years two and three years. Engagement with the workplace SVQ process, college attendance and satisfactory course progression is mandatory

You will be an employee of NHS Greater Glasgow and Clyde and therefore also expected to observe the same Terms and Conditions of employment that all our staff do and be subject to the same policies and procedures.

Does working in the Medical Devices Unit mean I will be dealing with patients?

Although much of the work takes place in the Medical Device Unit and associated workshops/labs you may also be working in patient areas. Users of the service send or arrange for equipment to be taken to the workshops but a proportion of the work takes place within clinical areas. This is mainly because these can be bulky items or equipment fixed in their location.

Will I be paid?

Yes. NHS Greater Glasgow and Clyde is a Living Wage Employer. This Modern Apprenticeship will pay you a minimum £16,086 per annum (£8.25 per hour).

THE MODERN APPRENTICESHIP PROGRAMME

What is a Modern Apprenticeship Framework and where does an SVQ fit in?

A Modern Apprenticeship Framework is a document that describes the minimum standard of competence defined by employers for a given role. Frameworks identify relevant SVQ (or alternative competency based qualifications), core skills e.g. communication, numeracy and any industry specific training that might be required.

More than 70 different Modern Apprenticeship Frameworks have been developed in Scotland².

A Scottish Vocational Qualification (SVQ) is a qualification that shows that you are able to perform a job to nationally recognised standards. SVQs are made up of Units, each one of which describes an aspect of the job. You are expected to work your way through all of the Units attached to your job role. There are no exams involved in an SVQ, staff are assessed at their workplace using observation, professional discussion and work related evidence. You will be assessed on the skills you use every day in your job.

What qualifications will I hold when I complete the Modern Apprenticeship?

This post reflects the following Modern Apprenticeship Framework:

Level 3 MA in Engineering

Successful completion of the program results in an HNC in Mechanical Engineering and an SVQ level 3 in Mechanical Manufacturing Engineering (Fitting and Assembly)

What happens at the end of the Modern Apprenticeship?

On successful completion of all elements of the NHS Greater Glasgow and Clyde Modern Apprenticeship (and SVQ qualification) we will support your transition into permanent employment within the organisation.

² http://www.skillsdevelopmentscotland.co.uk/our-services/modern-apprenticeships/ma-frameworks.aspx

Selection Timetable

<u>Please note this time table is indicative and may change.</u> Any variation in dates will be notified to candidates.

Recruitment Stage	Date
Information Session –your opportunity to find out more	Evening of 23rd January
about Medical Equipment Management and the MA	West Glasgow Ambulatory
Program, meet the teams and to tour one of our	Care Hospital (Yorkhill)
departments.	Click link to view a location
Places are limited – please email	<u>map</u>
modern.apprentice@ggc.scot.nhs.uk no later than Noon	
on 18th January including details of your qualifications	
to reserve your slot	
Closing date for application submission	3 pm Tuesday 31 st January 2017
Applications Assessed and candidates selected for Interview	Process completed by 10 th February 2017
Interviews	Interviews will be scheduled to take place during week commencing 27 th February 2017
Anticipated start date for Successful candidates to commence employment	Early May 2017

THE MODERN APPRENTICESHIP SELECTION PROCESS

I've never worked in this area before so how do you know I have the skills you are looking for?

As well as the educational qualifications, skills, knowledge/experience you must have to be able to do the job we will also ask you to provide supporting information in your application form that will help us assess your suitability.

The Supporting Statement of the application form plays a significant part in our decision to select your application for shortlisting. **Please ensure you read the guidance on completing the Supporting Statement carefully** and ensure you address all the questions ask of you. *See Page*

You should also consider booking a space at our information event which will provide the opportunity to learn more about the role and speak with departmental staff.

How do you decide who to interview?

We base our decision on who to interview by assessing the information you have provided and your responses to the questions you have been asked to address in your supporting statement.

How should I complete my application form?

To give you the best possible chance of selection please ensure please ensure you read and follow the detailed guidance on page 24 and that before submitting ensure you have provided responses to the questions you have been asked to address in your supporting statement. See page 11.

Draft your supporting statement before you type it into the text box in the application form and check your spelling and grammar. And keep a copy of this draft as if you are selected for interview you may wish to refer back to your submission.

Make sure your supporting statement does not exceed 50 lines of text including paragraph breaks.

THE MODERN APPRENTICESHIP SELECTION PROCESS

Please do not send any other inclusions e.g. copies of qualification certificates, other award letters or CVs etc. If you are selected for interview we will let you know what evidence we need you to provide regarding your educational qualifications.

Can I get help to complete the application form?

If you feel that you need some help to decide what would be useful to include in your application you should make contact with your local Skills Development Scotland office. One of the advisers there will be able to support you through the application process. You can find out more at https://www.skillsdevelopmentscotland.co.uk/

You can also find information on the My World of Work website https://www.myworldofwork.co.uk/getting-job/application-forms

Who should I ask to be a referee?

We know it might be hard for applicants to provide us with two referees if they have not worked before so that is why we will accept educational references from teachers at your school/college. However, if you do have a current part-time job or have volunteered or worked before please also give us details of someone who can provide a reference for this.

It is important that you give us full contact details including an email address for this person AND that you ask the person for permission to use them as a referee before you submit the application form.

We will only contact your referees if we decide to make a conditional offer of employement. All our offers of employment are conditional and subject to you satisfactory completing pre employment checks which incude reference and an occupational health assessment.

When is the closing date for applications?

Your application must be submitted before **3 pm Tuesday 31**st January **2017** at the latest.

We will **NOT** accept late applications.

THE MODERN APPRENTICESHIP SELECTION PROCESS

Who will assess my application?

Your application will firstly be assessed by recruitment professionals who will ensure that you meet the minimum selection criteria (a minimum of five National 5 qualifications at Grade A to C, three of which must be in English, Maths and a Science or Technical Subject OR an NC in appropriate technical discipline at SCQF level 6, or equivalent). Applications that meet the minimum criteria are then passed to a shortlisting panel.

This panel will include at least two managers from the department hiring staff. They will be judging how well your application matches the selection criteria for the post. They will review the information you provide in relation to the educational qualifications, knowledge, skills and experience required for the post. The shortlisting panel will be looking for well presented, clear, concise information and any additional information that is interesting and highlights any additional skills and qualities you have over and above your educational qualifications.

When will interviews be held?

We anticipate that the interview and selection process will be completed by 10th February 2017. If you have been selected for interview you will be notified by letter, email or text of the date, time and venue for interviews.

Disability

The Equality Act defines Disability as follows "any physical or mental impairment which has a substantial adverse effect on a person's ability to carry out normal day to day activities". NHS Scotland is "Positive about Disabled People" as part of our continued commitment to extend job opportunities for people who are disabled. All candidates who indicate they have a disability **and meet the minimum criteria for selection** will be guaranteed an interview.

THE MODERN APPRENTICESHIP APPLICATION FORM

What should I put in my application?

You should take time reading the guidance on completing the application form and ensure you do not leave it to the last minute. One standard application form means that everyone who applies is considered on the same basis.

It's a good idea to gather all the necessary information e.g. your educational qualifications before you start to complete the application form.

Plan what information to include in each section of the application form and take note of the space provided which will give you an indication of how much information is required.

Completing the Statement in Support of Application.

To stand the best chance of getting an interview you need to ensure that you carefully address each of the following areas in your complete your Statement in Support of Application.

- Why are you interested in an Apprenticeship with NHS Greater Glasgow and Clyde?
 Please describe briefly why you think you would be good applicant to the Medical
 Devices Unit. eg Tell us about your interest in science or engineering and why you think
 this is the career path for you.
- In the summary information we have told you what skills and personal qualities we are looking for. Tell us which of these skills you have and how you have developed them e.g. through work, volunteering, school/college practical subject based tasks (mechanical, technical or design based activities including graphic design), any pass times, hobbies or interests that require good hand eye co ordination or problem solving skills, any clubs or after school/college groups/other interests that demonstrate the skills and personal qualities we are seeking.
- Please tell us a bit more about you. How do your family, friends, teachers/employers describe you? Tell us about your achievements (e.g. Duke of Edinburgh or other awards, hobbies and interests), any talents or aspirations or anything else you think might be relevant to your application.

The Equal Opportunities Monitoring form is required for monitoring purposes only and will not be made available to the interview panel during any part of the recruitment process.

THE MODERN APPRENTICESHIP APPLICATION FORM

Final Check

- Make sure you have included details of all your qualifications (including dates awarded)
- Make sure you include contact details for your Educational Reference(s) and Work/Character Reference, including email address for them. Don't forget to ask their permission to use their details on your application form
- Make sure you check that your responses are checked for spelling and grammar and provide detail. It might be useful to get someone else to look over your application form for a second opinion in case you have made any mistakes.
- It is always useful to make a few drafts before you submit one you are happy with and keep a copy of your final draft. Remember if you are selected for interview it will be important to review the application you submitted as part of your interview preparation.
- And finally before you submit it check it one last time

How to submit your Application Form:

Applications should be completed electronically submitted via the NHS Scotland Jobs website. You will receive an automatic confirmation of submission from the NHS Scotland Website. When your application is forward to NHS Greater Glasgow and Clyde you will receive an email confirming receipt. If you have any problems submitting your application form please call NHS Greater Glasgow and Clyde Recruitment Service on 0845 3000 831

Applications should be returned by the closing date of 3 pm Tuesday 31st January 2017.

Late applications cannot be considered.

THE MODERN APPRENTICESHIP TERMS AND CONDITIONS

Starting Salary

£16,086 per annum.

Fixed Term Contract Duration

The duration of the post is fixed term for 4 years

Hours of Duty

37.50 Hours per week

Annual Leave

The annual leave entitlement in a full year commencing 1st April to 31st March is:

➤ 27 days (202.5 hours), rising to 29 days (217.5 hours) after 5 years' service and 33 (247.5 hours) days after 10 years' service. There are 8 (60 hours) Statutory and Public Holidays in each leave year (pro rata where applicable).

Superannuation Pension Scheme

If appointed you will be automatically enrolled in the NHS Superannuation Scheme however on appointment you can chose to opt out of the scheme. Employee's contributions to the NHS Scheme are tiered based on your earnings and the employer's contribution equates to 13.5 % of salary. Employees in the NHS Scheme are "Contracted-out" of the State Earnings Related Pension Scheme and pay a lower rate of National Insurance contributions. You can find out more at www.sppa.gov.uk

Right to Work in the UK

We are required to check the entitlement to work in the UK of all prospective employees, regardless of nationality or job category. Candidates appointed to a post will be required provide appropriate documentation verifying right to work in the UK prior to any commencing employment

Healthcare Support Workers

You will be expected to comply with the new NHS Scotland Mandatory Induction Standards and Code of Conduct for Healthcare Support Workers NHS Greater Glasgow and Clyde has in place an Induction Programme which new employees will be expected to complete in the first few months of starting the new post. As part of the Induction Process, you will be required to achieve Mandatory Induction Standards and Code of Conduct for Health Care Support Workers and these standards will be met through on the job induction programmes within NHS Greater Glasgow and Clyde that are core in supporting new staff.

THE MODERN APPRENTICESHIP TERMS AND CONDITIONS

Smoke Free Policy

NHS Greater Glasgow and Clyde operates a NO SMOKING Policy on all premises and grounds for staff and visitors.

Pre employment Checks

All offers of employment will be subject to the receipt of satisfactory References, Occupational Health Screening, Criminal Records Check (Disclosure Scotland) where applicable, Eligibility to Work in the United Kingdom and Verification of Qualifications.

Car parking and travel to NHSGGC Sites

Like other NHS Boards across the country, demand for car parking on our hospital sites far outweighs availability. As a result, access to on-site parking is extremely limited and you will therefore need to find alternative ways of travelling to work if you are selected for the post.

All staff are entitled to apply for the following benefits on appointment:

- Interest free loan to purchase Zonecard's a flexible season ticket for unlimited travel by rail, subway, most buses and even some ferries (details on public transport routes to NHS Greater Glasgow and Clyde's sites can be found by visiting www.nhsggc.org.uk and select Transport and Parking on the home page or visit www.spt.co.uk/travelinfo
- Cycle to Work Scheme, for staff to purchase a bicycle and any equipment needed and then repay those costs through their salary.

Learning and education

NHSGGC has an on-going commitment to learning and development through competency based training and individual personal development plans informed by the Knowledge and Skills Framework (summary guidance can be accessed via www.nhsggc.org.uk go to Career and Jobs, click Agenda for Change and select Knowledge and Skills Framework).

For more information about the benefits and discounts available to NHS Greater Glasgow and Clyde staff, visit www.nhsstaffbenefits.co.uk and www.nhsdiscounts.com

MODERN APPRENTICESHIP ASSISTANT PRACTITIONER CLINICAL TECHNOLOGIST – MEDICAL DEVICES UNIT

Summary Information

Full Job Description on Page 18

Where will the apprentice be working?

The apprentice will be working for the Mechanical Engineering Section within the Medical Devices Unit (MDU). The main base is at the West Glasgow Ambulatory Care Hospital, Yorkhill (WGACH). There may also be a requirement to spend time in our satellite workshops. Our Radiotherapy support workshop is in the Beatson West of Scotland Cancer Centre, Gartnavel and our dental hand-piece repair laboratory is in the Glasgow Dental Hospital and School. In addition the apprentice will visit acute and community health sites within Greater Glasgow and Clyde.

The MDU is part of The Department of Clinical Physics and Bioengineering (DCPB) and is based in Glasgow, Scotland, and serves the scientific and technical needs of NHS Greater Glasgow and Clyde. The department is one of the largest of its kind in Europe. Its influence covers a large area of the west of Scotland. DCPB is organised around the five services of radiotherapy, imaging, clinical engineering, medical equipment management and core services.

What are the working hours and shift pattern?

37.5 hours per week, Monday to Friday, typically from 8:45 to 5:15.

What does the MDU do within NHS GGC?

The Medical Devices Unit (MDU) is a multi-disciplinary unit composed of scientists; software, electronic and mechanical engineers; bioengineers and technical staff. MDU staff support innovation projects from inception to completion, including project planning, design, verification, validation and adoption of new medical devices and test equipment to improve patient treatment and care. MDU staff also provide equipment repair, maintenance and calibration services.

In the Medical Devices Unit (MDU) we get to see all the new and innovative equipment from the healthcare environment. We get to see how technology can be used to treat, diagnose and monitor patients. With such a varied work load you are always intellectually stimulated and the unpredictable nature of the work means your knowledge and experience constantly tested.

The MDU are working on several new and innovative technologies including:

- Wearable sensors to record vital signs and detect problems early. These sensors use similar technologies to consumer fitness trackers.
- Use of 3D printing technologies to improve healthcare. For example, we are currently using our 3D printer to explore the use of digital scanning and 3D printing technologies to create custom oxygen masks that are a much better fit.
- Use of head mounted display, digital projection and eye-tracking technology to create better ways of assessing visual defects.

What are the common duties of this role?

- Work with other health professionals (surgeons, doctors, nurses, physios, etc) to develop mechanical engineering concepts/ideas that will improve patient treatment and care. Sometimes we are working on ideas that have never been tried before.
- Design and manufacture mechanical components for bespoke medical devices/equipment. We use industry standard computer aided design tools and a mix of conventional and digital manufacturing methods including machining, laser cutting, welding and 3D printing.
- Repair/modify and adapt existing mechanical equipment.
- Carry out mechanical checks and maintenance on medical equipment, e.g. Physio equipment, dental drills, radiotherapy equipment.
- Check the accuracy of mechanical hospital equipment.

Who else works in the team?

There are a total of 10 staff in the Mechanical Engineering team, comprising mechanical engineering technologists, designers and workshop managers. We also work very closely with our software and electronic engineers in the MDU.

What are the most important skills required for this post?

- Good manual dexterity
- Hand-eye co-ordination
- Attention to detail
- Good problem solving skills
- Good IT skills
- An aptitude for understanding mechanical components and how they work

What are the most important personal qualities required for the role?

- Able to work as part of a team
- Good communication skills

- An inquisitive mind
- An interest in mechanical mechanisms and systems
- A willingness and confidence to put forward ideas/opinions

What is the most challenging part of this role?

Staff are given a varied workload so technologists need to be able to prioritise effectively. Technologists need to work effectively and efficiently under pressure, particularly when service demand is high.

This role can vary on a daily basis. At times you could be on your feet most of the day and other times you could be sitting doing PC based work. It also involves visiting departments at other hospital sites throughout Greater Glasgow & Clyde. It may involve working in areas with adult or child patients.

What is the most satisfying part of this job?

Technologists experience great job satisfaction in solving a problem and repairing equipment.

The role can be very satisfying, especially when you see a project through from beginning to end and help develop devices/equipment that directly benefits patients.

You can be involved in tasks of varying levels of technical complexity from replacing a screw to long term design and manufacture of electro-mechanical systems.

Longer term, how could this apprenticeship support career progress/ a career in the NHS?

The skills and qualifications earned can be used to develop a career in Clinical Engineering. Greater Glasgow and Clyde is one of the largest health boards in the UK and offers lots of opportunities for ambitious employees.

THE MODERN APPRENTICESHIP PROGRAMME

Job Description

You will work to the standard **Assistant Practitioner – Clinical Technologist** Job Description with the expectation that you will be supported and trained to carry out all the duties and responsibilities outlined. You would not be expected to perform at Assistant Practitioner level on appointment.

1. JOB IDENTIFICATION	
Job Title:	Assistant Practitioner Clinical Technologist
Department(s):	Clinical Physics and Bioengineering

2. JOB PURPOSE

The purpose of the post is to support the Mechanical Engineering Section objective to provide a full mechanical engineering service to medical, nursing and other hospital staff in NHS Greater Glasgow and Clyde health board. Services are also occasionally provided to other NHS bodies.

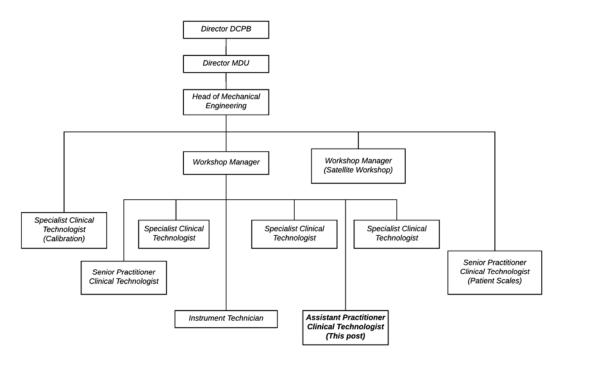
3. ROLE OF DEPARTMENT

The Department of Clinical Physics and Bioengineering (DCPB) is based in Glasgow, Scotland, and serves the scientific and technical needs of NHS Greater Glasgow and Clyde. The department is one of the largest of its kind in Europe. Its influence covers a large area of the west of Scotland. DCPB is organised around the five services of radiotherapy, imaging, clinical engineering, medical equipment management and core services.

This job is based in the Medical Devices Unit (MDU). The MDU sits within the DCPB clinical engineering service but also provides some core services. It is a multi-disciplinary unit composed of scientists; software, electronic and mechanical engineers; bioengineers and technical staff. MDU staff support innovation projects from inception to completion, including project planning, design, verification, validation and adoption of new medical devices and test

equipment to improve patient treatment and care. MDU staff also provide equipment repair, maintenance and calibration services.

4. ORGANISATIONAL POSITION



5. SCOPE AND RANGE

The remit of the Mechanical Engineering Section is to

- Support the medical device innovation objectives of the Medical Devices Unit (MDU) by providing a Mechanical design, development, manufacturing and test service.
- Provide repair, modification, maintenance, inspection and advice services for the safe and accurate mechanical function of existing in-service clinical equipment used for patient care, therapy, treatment and diagnostic testing. This includes support for two major oncology treatment centres based in the Glasgow area.
- Provide a mechanical calibration service for instruments which are used in hospitals for Quality Assurance procedures, certificated to the quality standard BS EN ISO 9001:2000, audited by the British Standards Institution.
- Implement, manage and provide technical support for the NHS GGC
 Patient Weighing Scale policy across primary and secondary care.
- Support the training objectives of DCPB for clinical, scientific and technical

staff

All work is done in accordance with relevant National and International Standards.

The role will be based in the Medical Devices Unit on the West Glasgow ACH site but in certain cases the actual work will be carried out in another hospital or on a community health site. In some cases work may be unsupervised.

6. MAIN DUTIES/RESPONSIBILITIES

Duties

- Undertake inspection, routine maintenance and repair of low risk medical equipment.
 - Assist in the development of repair and testing regimes from the guidance issued by the manufacturers, and regulatory and industry bodies.
 - Undertake safety and functional tests of low risk medical equipment.
 - Provide reports and maintain records of work completed, including use of equipment databases to record maintenance status and to identify trends in records.
- Produce mechanical components and assemblies using conventional and digital methods, including hand fitting, machining (manual and CNC), fabrication, forming, laser cutting, 3D printing; and assembly techniques such as fastening, bonding and welding.

Responsibilities

- Undertake tasks allocated by a manager or supervisor.
- Work safely with regard to H&S legislation, COSHH guidelines and local rules. In a significant number of situations this will require the choice and use of appropriate personal protective equipment.
- Work to international manufacturing quality standards.
- Work to acceptable time scales.
- Report material, tool or consumable shortages to the Workshop Manager.
- Ensure care of in-house equipment during use, report any equipment faults or limitations to the Section Manager. Apply good housekeeping skills in areas of work to ensure a clean and safe workplace.
- Work as part of a team, and represent the section in a positive and professional manner when working with, patients and other clinical,

- scientific, technical, and support staff.
- Maintain confidential information when working on research and test projects, and where aware of patient data.

7. SYSTEMS AND EQUIPMENT

- Tools and systems necessary for inspection, test, repair and calibration.
- Manual and Computer Numerical Control (CNC) machine tools.
- Hand tools.
- Fabrication, cutting and forming tools.
- Welding, brazing and lead casting facilities and associated extraction systems.
- A range of mechanical mechanisms and systems and including but not limited to pneumatic systems, hydraulic systems, seals, bearings, actuators and friction devices.
- Consumables such as adhesives, lubricants and solvents.
- Range of equipment with a mechanical function such as
 - Medical test equipment
 - Physiotherapy and rehabilitation equipment
 - o MRI compatible equipment
 - o Patient weighing scales
 - o Radiotherapy equipment
 - o Dental motors, handpieces and chairs
 - Cyclotron plant
 - Medical devices
- Computer applications: email, internet, Microsoft Office software, CAD, equipment databases, quality management software, incident reporting software, Health and Safety management systems (COSHH, risks assessments, SOPs, etc.).

8. DECISIONS AND JUDGEMENTS

- Work is assigned and reviewed by a section manager or supervisor.
- Routine decisions on equipment defined as being in the low risk range of medical equipment.
- Identify faults and repair strategies.
- Determine if work can be undertaken safely.
- Understand when it is appropriate to seek advice from a more senior member of staff before proceeding with a course of action.
- Identify and select appropriate materials, tools and consumable required for the work requested.

9. COMMUNICATIONS AND RELATIONSHIPS

The post holder will:

- Work closely with a Section Manager and senior technical staff.
- Ensure that work performed is documented according to section standard practice.
- Cooperate with and communicate basic technical information to a wide range of NHS colleagues including medical and nursing staff; and allied healthcare professionals.

10. PHYSICAL DEMANDS OF THE JOB

- Requirement to work with delicate instruments and mechanisms. This requires concentrated effort in a restricted position, visual acuity, handeye co-ordination and dexterity.
- Operation of manual and NC machine tools while standing for long periods, concentrating on maintaining accuracy and surface finish. Significant dexterity and hand to eye coordination is required.
- Significant exposure to fumes, lubricants, dust, noise, cuttings and swarf whilst operating high speed rotating machine tools and portable power tools.
- Moderate exposure to fumes from solvents, adhesives, coating procedures; and lead, elastomer, and epoxy casting processes.
- Periods of concentration are required during inspection and safety testing.
- Occasional lone working.
- Some equipment can be heavy or awkward to lift or move, frequently resulting in periods of moderate physical effort. Regular requirement to lift and move equipment to the limits of the H&SW guidance.
- Occasionally medical equipment must be worked on in cramped and awkward positions.
- Exposure to compressed gasses during calibration procedures, and compressed gasses and high temperatures from welding processes.
- When working in nuclear medicine, radiography, or radiotherapy areas, there is a possible risk of exposure to radiation and there may be a requirement to wear an exposure badge for monitoring.
- Extended periods using a desk top PC

11. MOST CHALLENGING/DIFFICULT PARTS OF THE JOB

- Sustaining concentration during repair or preventive maintenance procedures.
- Working to deadlines whilst maintaining high standards of work.
- There may very occasionally be some emotional distress when working on equipment for disabled or critical patients, especially children, where there is direct or indirect contact.

12. KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE JOB

Please note the criteria outlined in this section do not apply to applicants for the Modern Apprentice Programme. Modern Apprenticeship Applicants must possess at least Five National 5 qualifications at Grade A to C (or equivalent) three of which must be in Maths, English and a Science or Technical Subject.

	Essential	Desirable
Qualifications	A relevant science / technology-based Higher National Diploma, S(N)VQ level 4 or equivalent, e.g. a relevant HNC in an appropriate subject, may be acceptable provided there is an equivalent profile of knowledge, training and experience to HND / S(N)VQ level 4.	Membership of an appropriate professional body.
Knowledge and Training	The post holder must have the necessary skills attained through an apprenticeship or equivalent training in mechanical engineering, particularly in:- • Materials: Ability to identify and select materials.	 Knowledge of the design and operation of the various types medical equipment Working knowledge of relevant legislation, national standards, professional and other guidelines

- Engineering
 Documentation: Ability
 to interpret drawings
 and maintenance
 manuals; and produce
 engineering drawings
 which conform to ISO
 standards and
 conventions.
- Machining Processes: Safe, accurate and economical use of machine tools, lathes, milling machines, drilling machines, etc.
- Fabrication Techniques:

 Familiar with plastic and metal forming and bonding; and hot metal processes of soldering, brazing, welding and casting.
- Workshop Practice:

 Safe, accurate and economical use of hand tools, precision measuring instruments.
 Application of inspection procedures, mechanical fastening techniques. Relevant use of adhesives and lubricants.

	 Equipment Maintenance: Knowledge of mechanical mechanisms; design, construction and function of machines and machine elements, to include pneumatics, hydraulics, motors, bearings and gears. 	
Experience	Relevant practical experience in the following: • Design, development, manufacturing and test of mechanical equipment.	 Practical experience of medical devices and equipment. Quality Management Systems.
	 Repair, modification, maintenance and inspection of mechanical equipment. 	 Inventory and stock control systems. Computer Aided Design
	 Workplace practice and techniques including Health and Safety regulations. 	 Communication with other healthcare professionals.

Staff at this level will continue to develop and update their skills and knowledge.

The post holder is expected at all times to practice competencies that demonstrate insight, understanding and mutual respect of patients, their families, carers and work colleagues. Whether in a clinical or non clinical role the post holder is expected at all times to be an exemplar of person centred care, embracing their Code of Conduct to a high standard as part of an integrated health professional team.

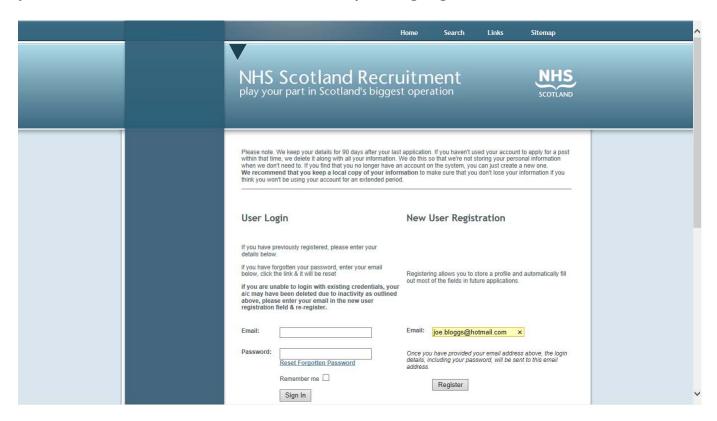
USING THE NHS ONLINE JOB APPLICATION SYSTEM - www.jobs.scot.nhs.uk

Once you have located the vacancy on the job site select the "How to apply: You can apply online, click here to start the process" option

Step 1 - Create your account

To create your user account type your email address into the email box under New User Registration. This will allow you to immediately proceed to completing an application form. You will also be issued a password by email which you can use when next accessing the system. Your user name will be your email address.

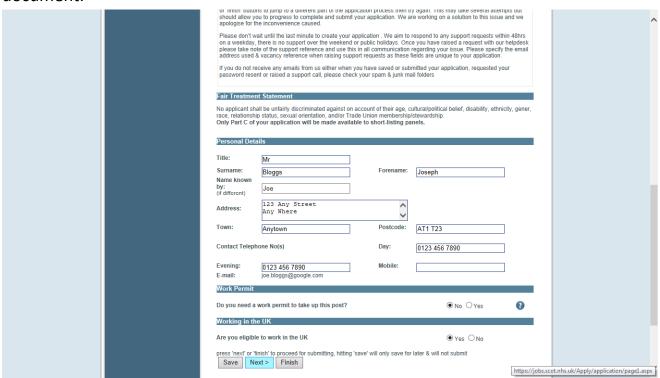
This email address will be your user name for future applications and the address that all emails from the NHS Scotland Webteam will be sent - including a notification of your password – so make sure its correct before pressing register.



Step 2 - Personal Details

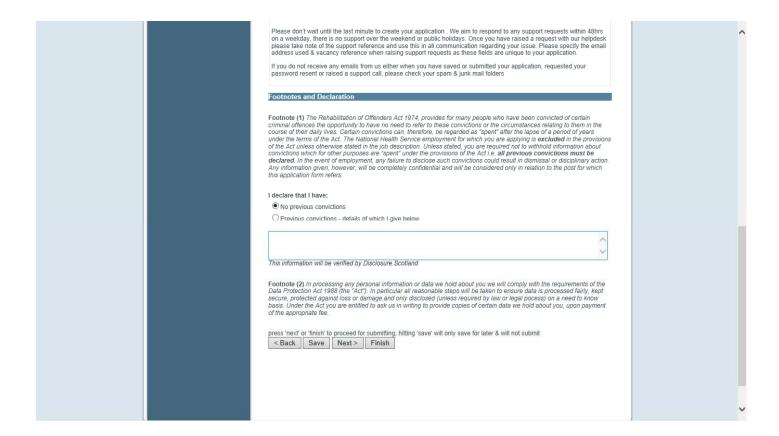
- Please read the instructions at the start of this section and complete as many sections as you can.
- Name known by if different is if you are called something other than your birth name eg Catherine known as Cathy or Joseph known as Joe.
- All applicant born in the UK or European Union are eligible to work in the UK and do not require a work permit – if this applies to you answer No for work permit and Yes for eligible to work in the UK. Non UK or EU nationals should view appendix 1 at the end of this

document.



Step 3 – Criminal Convictions Declaration

If the position you have applied for states that PVG Scheme Membership/Disclosure Scotland Clearance is required you must declare any unspent convictions and spent conviction that appears on either the "Offences that must always be Disclosed" or that appear on the "Offences to be disclosed subject to rules" lists. For futher information visit https://www.disclosurescotland.co.uk/news/UKSCFAQs.htm



Step 4 - Qualifications and Memberships (Part C) – School , College, University and other Education History.

- For each subject you list you must include the type of qualification, the grade achieved and must include a date. If you are unsure of the exact qualification date please estimate using the last day of the month your qualification was issued eg 31/08/2015.
- For qualifications you are currently studying and have not received a result estimate the result you expect to receive and the date you estimate the results will be issued.
- All dates should be entered in number format. On submission they will revert to text and number eg 31/08/2015 will become 31 Aug 2015. This is not an error.

	apologise for the inconvi	enience caused.			
	Please don't wait until th on a weekday, there is n please take note of the s address used & vacancy	e last minute to create your appl to support over the weekend or p support reference and use this in a reference when raising support	lication. We aim to respond to public holidays. Once you have all communication regarding y requests as these fields are u	any support requests within 48hrs raised a request with our helpdesk rour issue. Please specify the email nique to your application.	^
	If you do not receive any	y emails from us either when you ed a support call, please check y	have saved or submitted your		
		Qualifie	ations Achieved		
	Subject	Type of Qualification		Date Achieved (dd/mm/yyyy)	
	English	National 5	С	05/08/2015	
	Maths	National 5	С	05/08/2015	
	French	National 5	В	05/08/2015	
	Biology	National 5	В	05/08/2015	
	Chemistry	National 5	A	05/08/2015	
	English	National 4	pass	04/08/2014	
	Maths	National 4	pass	04/08/2014	
	Science	National 4	pass	04/08/2014	
	Art and Design	National 4	pass	04/08/2014	
	French	Natioal 4	pass	04/08/2014	
			s Currently Studying		
	Subject	Type of Qualification	Grade Anticipated	Date Anticipated (dd/mm/yyyy)	
		_		-	
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	Membership of Profe	ssional Regulatory Bodies			
	Examples: Nursing and N	Schulfons Council: The Chartered	Conjety of Dhyriotherney Men	alth Professions Council; General	
	Medical Council; British C Name of organis	Computer Society			
	Name of organis	ation(s) Regist	tration Number	Renewal Date (dd/mm/yyyy)	
		_			
		roceed for submitting, hitting 'sav Next > Finish	ve' will only save for later & will	not submit	
	Save				
/page3.aspx					~

Step 5 - Employment History (Part C)

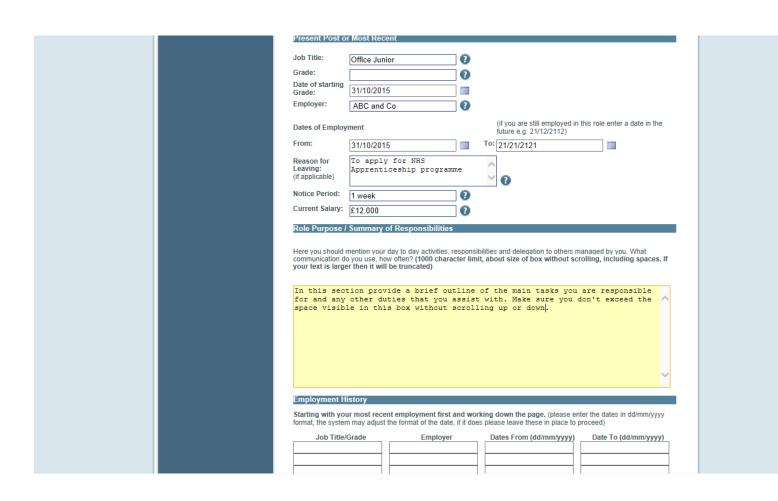
If you have recently left School or College and/or have <u>no</u> previous employment please list the details of your school/college – see example below - and ensure the detail you type in the Role Purpose/Summary of Responsibilities section fits inside the box **without** scrolling.

Job Title:	Full time Student	0		
Grade:		0		
Date of start Grade:	ing			
Employer:	Any Highschool, Anytown	0		
Dates of Em	ployment		(if you are still employe future e.g. 21/12/2112)	d in this role enter a date in the
From:	31/08/2010		To: 24/06/2015	
Reason for Leaving: (if applicable	Finished School		0	
Notice Perio	d:	0		
Current Sala	ry:	0		
Here you sho	se / Summary of Responsibiliti	es s, responsi		
Here you sho	uld mention your day to day activitie	es s, responsi		
Here you she communicati your text is In this experien particip	ould mention your day to day activitie	es s, responsi nracter lim a brief tivities	account of any proj s you undertook at s	ect work or work
Here you she communicati your text is In this experien particip your ans	uld mention your day to day activitie on do you use, how often? (1000 charger then it will be truncated) section you should give as placement or extra action in team sports, solver fits inside this box	es s, responsi nracter lim a brief tivities	account of any proj s you undertook at s	ect work or work
Here you she communicat your text is In this experien particip your ans	uld mention your day to day activitie on do you use, how often? (1000 charger then it will be truncated) section you should give as placement or extra action in team sports, solver fits inside this box	s, responsion a brief tivities nool pla	account of any projs you undertook at says, drama societies	ect work or work chool or any etc. Make sure
Here you sho communicati your text is In this experien particip your ans Employme Starting with format, the si	and mention your day to day activities on do you use, how often? (1000 charger then it will be truncated) section you should give a section you should give a section in team sports, so wer fits inside this box wer fits inside this box	s, responsion a brief tivities a brief t	account of any projs you undertook at says, drama societies	ect work or work chool or any etc. Make sure

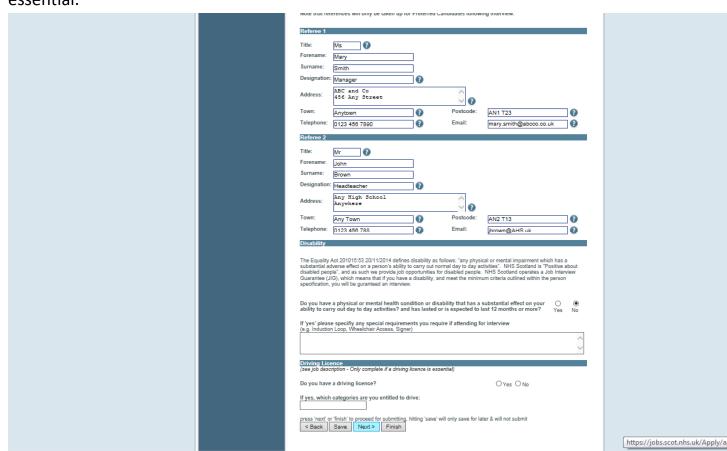
For those with a current or recent employment history – paid or voluntary - please see next section.

Step 5 - Employment History (Part C)

- If you are now employed or have recently been employed in either paid or voluntary
 employment provide those employment details here. If you are still working in the job
 the "to date" should be 21/21/2112. If this is a job you have now left and you are not
 currently employed on a paid or voluntary basis please ensure you include your last
 working day as day, month and year.
- Other jobs if any can be listed in the Previous Employment Section. If you can't be precise about dates please include an estimate date day, month and year.
- Make sure that you do not repeat the detail on the Present or Most Recent post in the employment history. If space allows you can also include any school or college work experience or work placements and any voluntary work.



- In this section please ensure that your application includes full referee details one of whom must be your current or most recent employer (paid or voluntary employment).
 If you have previous employment – paid or voluntary - you can provide a character references (not friends or family members) and a reference from your school and college.
- If you have a disability you are not required to disclose it however we do operate a guaranteed interview scheme for disabled applicants who meet the minimum selection criteria. If you have declared a disability and require special requirements for interview please let us know.
- Only include details if your driving licence if the post you are applying for has specified that a driving license is essential.



Step 7 – The Statement in Support of Application

Your supporting statement is your opportunity to tell us why, aside from meeting the minimum requirements for the Modern Apprenticeship Programme you want take part.

Make sure your statement isn't longer than 50 lines (aprox 1 A4 page including paragraph spaces) doesn't include any bullet points or symbols and includes all the detail requested in the information pack. You might find it helpful to draft your statement in MS Word or a similar programme to ensure that you have checked the length, spelling and grammar.

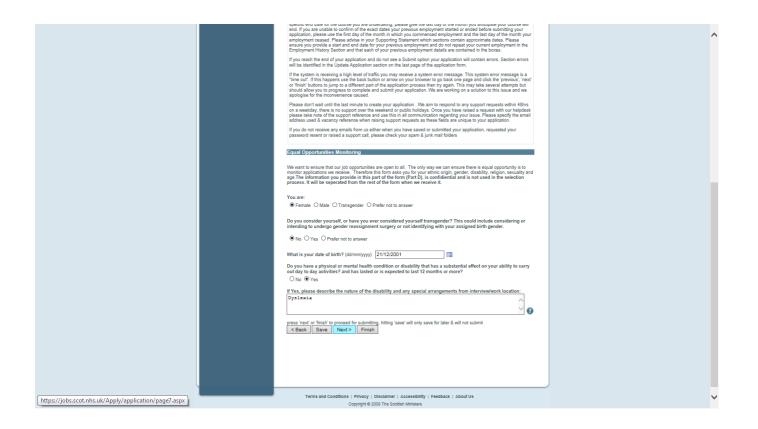
Once you have pasted it into the box if you are not certain of length check the number of lines including paragraph spaces before you submit.

Please do not exceed the 50 line limit as although you may be able to view on screen, your additional text may not be visible to the shortlising panel.

If you reach the end of your application and do not see a Submit option your application will contain errors. Section errors will be identified in the Update Application section on the last page of the application form.	
If the system is receiving a high level of traffic you may receive a system error message. This system error message is a "time out". If this happens use the back button or arrow on your browser to go back one page and click the 'previous', 'next' or 'finish' buttons to jump to a different part of the application process then try again. This may take several attempts but should allow you to progress to complete and submit your application. We are working on a solution to this issue and we applications for the inconvenience caused.	
Please don't wait until the last minute to create your application. We aim to respond to any support requests within 48hrs on a weekday, there is no support over the weekend or public holidays. Once you have raised a request with our helpdesk and the public holidays. Once you have raised a request with our helpdesk and several content of the public holidays. Once the public holidays of the public holidays of the public holidays. Once the public holidays of the public holidays of the public holidays. Once the public holidays of the public holidays of the public holidays. Once holidays of the public holidays of the public holidays of the public holidays. Once holidays of the public holidays of the public holidays. Once holidays of the public holidays of the public holidays. Once holidays of the public holidays of the public holidays. Once holidays of the public holidays of the public holidays. Once holidays of the public holidays of the public holidays. Once holidays of the public holidays of the public holidays. Once holidays of the public holidays of the public holidays. Once holidays of the public holidays of the public holidays. Once holidays of the public holidays of the public holidays of the public holidays. Once holidays of the public holidays of the public holidays of the public holidays. Once holidays of the public holidays. Once holidays of the public holidays of the pub	
If you do not receive any emails from us either when you have saved or submitted your application, requested your password resent or raised a support call, please check your spam & junk mail folders	
Statement in Support of Application	
Please provide other information that may be relevant to your application, for example, experience and major achievements to date, personal qualities, skills and attributes:	
Please note that this section has a size limit, text exceeding this limit may be truncated. Applicants should refer to the guidance on text limits contained in the application pack.	
Please ensure that this section does not exceed I A4 page of text, does not include any bullet points or symbols and includes the information on motivation, team work and personal qualities.	
~	
Advertisement	
Where did you see the advertisement for this post?	
O NotSpecified	
O Newspaper O Journal	
O Bulletin	
Website Other Details:	
○ JobCentre www.apprenticeships.scot ×	
press 'next' or Tinish' to proceed for submitting, hitting 'save' will only save for later & will not submit < Back Save Next > Finish	
Terms and Conditions Privacy Discisimer Accessibility Feedback About Us	

Step 8 – Equal Opportunities information

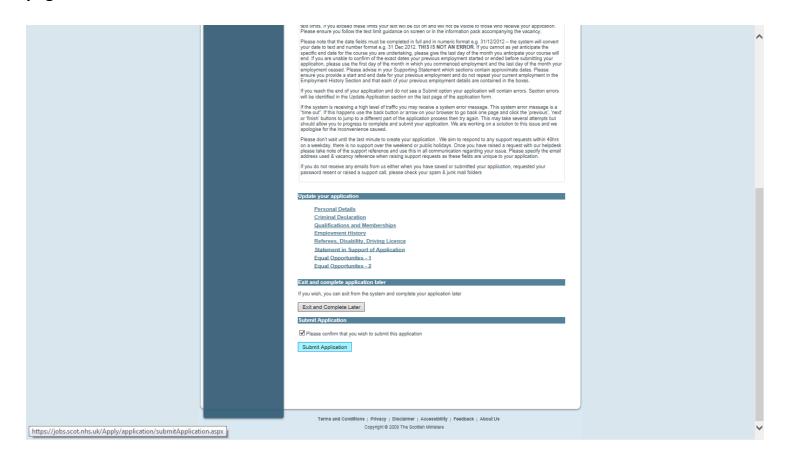
We are an equal opportunities employer but the only way we can ensure this is by recording certain information about the people who apply for or jobs. This data is confidential and is not part of the selection process, is not retained with your application and is used for monitoring purposes only. If you do not wish to provide any data please select "prefer not to answer" but please note that as the funding for modern apprenticeships is linked to your Age you must provide your date of birth.



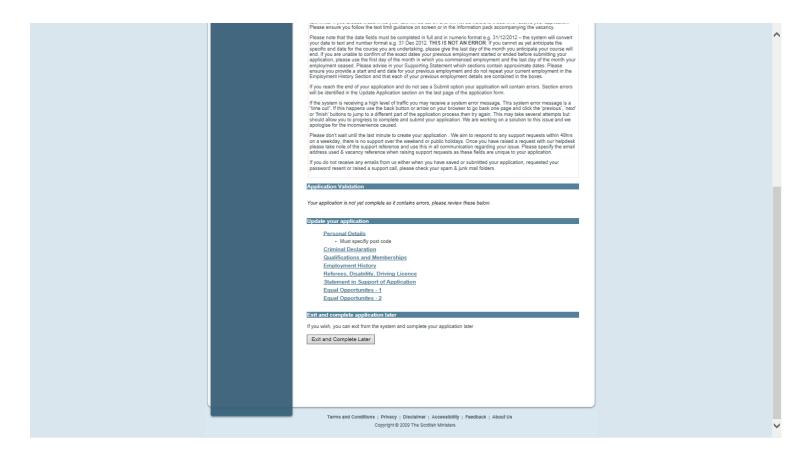
If you do not wish to provide any data please select "prefer not to answer" but please note that as the funding for modern apprenticeships is linked to your Age you <u>must provide</u> your date of birth.



Step 9. Submitting your application. If you have fully completed all the required sections you will see the option below to submit. **If you do not see the submit option please see next page.**

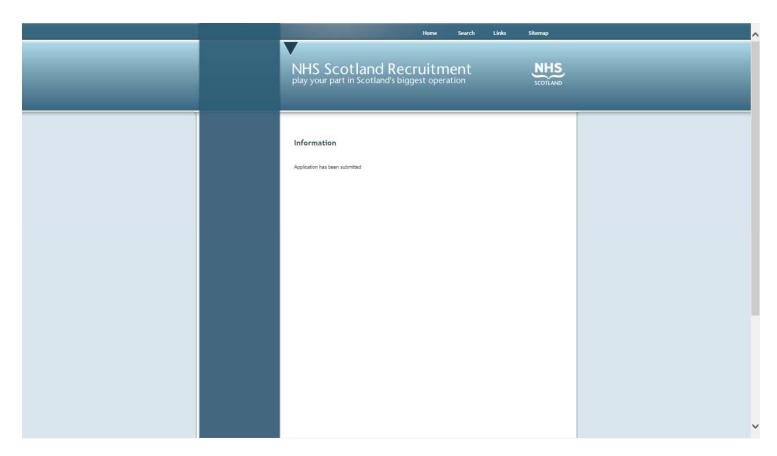


If you have not fully completed your application under the "Update your Application" section you will see what error is preventing your application submission. Once all sections are properly completed you will see the submit application option.



Step 9 - Confirmation that your application has been successfully submitted

You will see an onscreen message confirming successful submission and receive an email to the email address you created your account confirming submission. Please ensure you check your email inbox including junk mail folders for this email and make sure you keep this email as confirmation of submission. You will receive an additional confirmation from NHS Greater Glasgow and Clyde when we receive your application from the NHS Scotland Jobs Website.



Appendix 1

Right to work in the UK

Any **one** of the documents listed below will provide the necessary evidence of the right to work in the UK.

<u>If selected for interview and appointment</u> you will be asked to produce evidence of our right to work the UK.

The document provided must be the *original*.

- A passport showing that the holder is a British citizen, or has the right of abode in the United Kingdom.
- A document showing that the holder is a national of a European Economic Area country* or Switzerland. This must be a national passport or national identity card.
- A residence permit issued by the United Kingdom to a national from the European Economic Area country or Switzerland.
- A passport or other document issued by the Home Office which has an endorsement stating that the holder has a current right of residence in the United Kingdom as the family member of a national from a European Economic Area country or Switzerland.
- A passport or other travel document endorsed to show that the holder can stay indefinitely in the United Kingdom, or has no time limit on their stay.
- A passport or other travel document endorsed to show that the holder can stay in the United Kingdom; and that this endorsement allows the holder to do the type of work the employer is offering if they do not have a work permit.
- An Application Registration Card issued by the Home Office to an asylum seeker stating that the holder is permitted to take employment

OR

Two of the documents in the combinations listed below will provide evidence of the right to work in the UK. The documents provided must be the *originals*.

First Combination

• A document giving a person's permanent National Insurance number and name. This could be a: P45, P60, National Insurance card, or a letter from a Government agency

AND one of the following documents

 A full birth certificate issued in the United Kingdom, which includes the names of the holder's parents or

- A birth certificate issued in the Channel Islands, the Isle of Man or Ireland or
- A certificate of registration or naturalisation stating that the holder is a British citizen or
- A letter issued by the Home Office which indicates that the person named in it can stay indefinitely in the United Kingdom or has no time limit on their stay **or**
- An Immigration Status Document issued by the Home Office with an endorsement indicating that the person named in it can stay indefinitely in the United Kingdom or has no time limit on their stay **or**
- A letter issued by the Home Office which indicates that the person named in it can stay
 in the United Kingdom; and this allows them to do the type of work that the employer is
 offering or
- An Immigration Status Document issued by the Home Office with an endorsement indicating that the person named in it can stay in the United Kingdom; and this allows them to do the type of work that the employer is offering.

Second combination

 A work permit or other approval to take employment that has been issued by Work Permits UK

AND one of the following documents

- A passport or other travel document endorsed to show that the holder is able to stay in the United Kingdom and can take the work permit employment in question or
- A letter issued by the Home Office confirming that the person named in it is able to stay in the United Kingdom and can take the work permit employment in question.