

Researcher (Laser Operator) in SCAPA centre

Department	Physics (www.strath.ac.uk/physics/)		
Faculty	Faculty of Science (www.strath.ac.uk/science/)		
Staff Category	Research	Reference No	61162
Reports To	SCAPA Laser Manager	Grade:	7
Salary Range:	£29837 - £36661	Contract Type:	Fixed Term (until 30/04/20)
FTE:	1	Closing Date	Sunday, 23 April 2017

Job Advert

Strathclyde is a leading international technological university focused on delivering excellent teaching and world-class research and known for forging strong collaborative links with industry, government, business and the third sector. Challenging conventional wisdom has been fundamental to the University's ethos for over 200 years. Today our research activity continues to be of central importance in everything we do – informing our teaching and enabling us to translate outcomes for the benefit of business, industry and society as a whole. We are continually advancing the intensity, quality and international competitiveness of our research.

As part of the University's strategic development, the Scottish Centre for the Application of Plasma Accelerators (SCAPA) has been established to focus the development and exploitation of potentially transformative, laser-driven accelerators and radiation sources. A state-of-the-art suite of laboratories has been constructed to facilitate experimental research in three shielded areas in up to seven radiation beamlines (five funded to date), using a pair of high-power laser systems (5 Hz, 350 TW and 10 Hz, 40 TW). Further laboratory space houses a lower-power high-repetition rate laser system and a number of auxiliary rooms (chemical fume hoods, biological safety cabinets, imaging dark room, vacuum pump rooms, etc.) that provide support facilities for experimental work.

The radiation beamlines comprise a complementary suite of vacuum-based accelerators and target stations for experiments on high power laser-plasma interactions and the application of laser-driven radiation sources. Each of the beamlines will have a unique configuration, to focus on a specific category of laser-plasma interactions and secondary sources.

The University seeks to appoint a post-doctoral position who will provide dedicated laser operations in SCAPA. The post is available from May 2017. The successful candidate will work as part of a team of researchers and technicians developing new laser-plasma experiment capability using the 350 TW and 40 TW lasers at SCAPA. The work will be varied in nature, but will always have a requirement for timely and professional completion and will involve engineering innovative practical solutions to facilitate the development, commissioning and use of SCAPA equipment for scientific research and applications.

To be considered for this role, you will hold a PhD level qualification (or be close to PhD completion) in laser physics or related field and have significant experience in constructing and/or operating femtosecond laser systems or high power laser systems. You will have excellent technical skills, verbal and written communication skills and an ability to interact effectively with colleagues and potential internal and external users of the equipment. You will work in a dynamic environment, with changing priorities and user groups, and so effective teamwork is essential. Being able to organise, plan, document and work both independently and as part of a team are vital skills.

Job Description

Brief Outline of Job:

The post involves working as part of a team of researchers and technicians to deliver state-of-the-art high power laser systems to users as part of the world class SCAPA centre. This includes testing and maintaining the equipment in good order, undertaking the development of the high-energy laser system towards specific users' needs, and ensuring key performance indicators of the equipment are met on a daily basis.

Main Activities/Responsibilities:

1.	Responsible for the daily operation of the SCAPA laser systems.
2.	Responsible for monitoring equipment performance (e.g. laser beam parameters) and organising maintenance and repairs through communication with SCAPA management and external vendors. Perform regular checks and document findings.
3.	Support laser users' needs to successfully field experiments using SCAPA laser systems.
4.	Purchase consumables for continual equipment use and source project specific materials where required
5.	Maintain good communication with SCAPA colleagues, wider University staff, industrial partners, external users and visitors.
6.	Support the implementation of robust laboratory practices, local rules and adherence to the University's Health and Safety Policy
7.	Contribute to the securing of funds for research, including drafting grant proposals and planning for future proposals.
8.	Write up research work for publication, individually or in collaboration with colleagues, and disseminate results as appropriate to the discipline by, for example, peer reviewed journal publications and presentation at conferences.
9.	Plan and manage own workload, with guidance from colleagues as required.
10.	Any other duties, commensurate with the grade of the post to facilitate SCAPA laser operations

Person Specification

Educational and/or Professional Qualifications

(E=Essential, i.e. a candidate must meet all essential criteria to be considered for selection, D=Desirable)

E.1 Hold a PhD or be about to obtain a PhD in laser Physics (or closely related field)

Experience

E.2 Proven record in constructing and/or operating femtosecond laser systems, or high power laser systems

E.3 Experience in the use of ultra-short laser pulses

D.1 Experience in optical design and simulation tools e.g. Zeemax

D.2 Experience in scientific equipment installation and commissioning

D.3 Experience in programming/interfacing with scientific equipment, control systems and data taking

D.4 Experience with laser diagnostics for high power systems

D.5 Experience in designing and/or developing scientific equipment

D.6 Experience working in an large scale research facility setting

Job Related Skills and Achievements

E.4 Ability to operate scientific equipment

E.5 Knowledge and experience of laboratory safety practices.

E.6 Excellent verbal communication skills, the ability to deal with a wide range of people and to interact successfully with others to learn and teach new skills

Personal Attributes

E.7 Willingness to work as part of a team and to be open-minded and cooperative

E.8 Commitment to meeting deadlines

E.9 Ability to work independently, with minimum supervision

E.10 Solution-orientated, proactive and able to use initiative

Application Procedure

Applicants are required to complete an application form including the name of three referees who will be contacted before interview without further permission, unless you indicate that you would prefer otherwise. Applicants should also submit a Curriculum Vitae and a covering letter detailing the knowledge, skills and experience you think make you the right candidate for the job. Applicants should also complete the Equal Opportunities Monitoring Form.

Other Information

Further information on the application process and working at Strathclyde can be found on our website (<http://www.strath.ac.uk/hr/workforus>).

Informal enquiries about the post can be directed to Dr Gregor Welsh, SCAPA Laser Manager, (g.welsh@strath.ac.uk/+44 141 548 5785).

Pension

The successful applicant will be eligible to join the Universities' Superannuation Scheme. Further information regarding this scheme is available from [Payroll and Pensions](#).

Interviews

It is anticipated that formal interviews for this post will be held in May 2017.

Equality and Diversity

We value diversity and welcome applications from all sections of the community.

Conditions of Employment

Research Staff

1. GENERAL CONDITIONS

Members of staff are subject to the Charter and Statutes and the Ordinances and Regulations of the University, published in the Calendar, and to any amendments or additions thereto approved by the University Court and, in the case of the Charter and Statutes, the Privy Council. Staff are also expected to familiarise themselves with, and adhere to, general University policies and procedures, as published on University web pages.

The University Court recognises Strathclyde Universities and College Union (SUCU) as the sole body with which it will negotiate and consult on all collective issues concerned with the terms and conditions of employment of Research Staff. Such terms and conditions may be varied by the University Court after negotiation and consultation with SUCU.

Each member of staff is responsible for the proper performance of allocated duties to the person or persons specified in the member of staff's letter of appointment and any accompanying papers.

The University is committed to ensuring that its business is conducted in an open and transparent manner and will take all appropriate steps to address risks of bribery or corruption. Members of staff are required at all times to act honestly and with integrity and to safeguard the resources for which they are responsible. The University has in place a robust Public Interest Disclosure (Whistleblowing) Policy to enable concerns to be brought to its attention. This is available at www.strath.ac.uk/publicinterestdisclosure. Other relevant policies, e.g. Fraud Prevention and Conflicts of Interests, can also be found on the University's website.

Any member of staff may at any time be exposed to commercially sensitive information, information related to potentially valuable intellectual property or information which may otherwise be of a confidential nature. This information, which could be found anywhere in the University, may be written or disclosed orally, can include information of a commercial or technical nature, and may be owned by the University or by third parties. The University requires all employees to keep any such information confidential in the first instance and not disclose, publish or otherwise disseminate it without prior consent of the University. Such confidentiality obligations are commonplace and in the commercial interests of the University. When in doubt advice should always be sought from Research and Knowledge Exchange Services prior to disclosure.

The University operates probationary periods for new staff, the duration of which will be specified in individual letters of appointment. The normal probation period for posts in this staff category is 9 months for those at grades 6 and 7, and 12 months for grades 8 and above. Further guidance on probationary procedures is published at <http://www.strath.ac.uk/staff/policies/hr/>.

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Further information on the terms and conditions specified in this document and other staffing policies and procedures can also be found at www.strath.ac.uk/hr.

2. SALARY

Appointments are made at an appropriate salary point on the University's grading structure, with initial placing determined according to qualifications and experience. Increments are paid to staff on the 12 month anniversary of their appointment. Where this is not the first of the month, the increment will be paid on the first of the month directly

after the 12 month anniversary. This allows 1 progression to the next point on the salary scale until the top guaranteed point of the scale is reached.

Salaries are paid directly to staff members nominated bank account, normally on the second last working day of the month.

3. HOURS OF WORK

Working time is that required to fulfil the duties of the post. The University Court recognises that research staff carry out these duties in a variety of ways appropriate to the nature of the research activity, but expects regular contact to take place between the research staff employee and the supervisor/granholder (where these positions are occupied by different individuals) during normal working hours on week days. There are exceptions to this pattern which may involve contact at other locations or in the evenings, or at weekends, but these arrangement will be made with the agreement of the member of staff concerned.

Duties may, by arrangement with Head of Department/School/Director, include some teaching associated with the post (up to a maximum of 40 hours per semester) for which no additional payment will be made.

Additional work which does not fall within the scope of that described above may by arrangement attract payment which must be authorised and processed through the payroll.

4. HOLIDAYS

Annual leave entitlement is 31 days per year to be taken by agreement with the line manager. For staff members working on a part-time basis, holidays will be calculated on a pro-rata basis.

In addition to annual leave there is an entitlement to eleven public holidays per year which should be taken on days that the University is closed for this purpose. The University presently closes for four additional days over the Christmas and New Year period. **These additional days count against the annual leave entitlement.**

For staff members working on a part-time basis, public holiday entitlement will be calculated on a pro-rata basis.

Annual leave and public holiday entitlements should be taken in the leave year to which they relate. Up to five days leave can be carried forward into the new leave year subject to line management agreement. In exceptional circumstances, Heads of Department/School/Director may approve carry forward of accrued annual leave in excess of five days.

The University's expectation is that staff take all accrued holidays prior to their termination date. If staff have exceeded their entitlement the University will deduct an equivalent number of days pay from final salary payments.

5. SICKNESS ABSENCE

During any period of absence through illness or injury provided the appropriate notification and certification procedures have been followed the University will pay a member of staff (having taken account of the aggregate of all periods of absence due to illness during the twelve months immediately preceding the first day of the current absence) as follows:

Period of Continuous Employment at start of absence from work	Full Pay	Half Pay
Less than 1 year	1 month	1 month
1 year but less than 2 years	2 months	2 months
2 years but less than 3 years	4 months	4 months
3 years but less than 5 years	5 months	5 months
5 years or more	6 months	6 months

In order to manage the University's sick pay scheme the University requires to maintain sickness absence records on individual members of staff. When making payments after the expiry of statutory sick pay the University will deduct an amount equivalent to any benefit normally payable by the Department of Work and Pensions. For full details on the general University policy in this area please refer to the Sickness Absence Management Policy at www.strath.ac.uk/staff/policies/hr.

6. PENSIONS

New members of staff, aged under 75, will be admitted automatically to membership of the Universities Superannuation Scheme (USS) on taking up appointment. If you are already in receipt of a USS pension you will join USS in accordance with pension auto-enrolment regulations. USS requires a contribution from the member, currently 8 per cent of pensionable salary. A contribution, currently 18 per cent of pensionable salary, is paid by the University. From 1 April 2016 all members are part of the career revalued benefits scheme called the USS Retirement Income Builder. From 1 October 2016 a threshold, initially of £55,000 a year, will apply to the maximum salary that counts towards the USS Retirement Income Builder. From the same date a new defined contribution section of the scheme called USS Investment Builder will open and any contributions above the threshold will be invested in this section. The exception to automatic membership of the pension scheme applies if your post is located out with the UK in an EU member state. If this is the case membership of USS is not available to you.

New members of staff may opt out of USS within three months of taking up appointment and will then be treated as if they had never been a member of the scheme. After three months members of staff who wish to withdraw from USS during their employment will be required to give a minimum of 28 days' notice in writing to the University. Any member of staff who wishes to opt out should contact the Pensions Section, Finance, in the first instance (pensions@strath.ac.uk). Please note that if you are a member of Pensions Plus and withdraw from USS with less than two years of membership, or cease employment with the University and have less than two years of USS membership, the option of a refund of pension contributions will not be available to you. Instead, USS must provide you with a pension benefit that is payable from your retirement date.

The University reserves the right to alter or withdraw Pensions Plus as it sees fit or as required to comply with legislative changes. Withdrawal or amendment of Pensions Plus will not affect your membership of USS. If you do not wish to participate in Pensions Plus but wish to remain in the pension scheme please contact the Pensions Team who will provide you with a non-participation form.

Information regarding pension scheme membership can be found on the Pensions pages of the University's website. Full information regarding USS can be found on the USS website – www.uss.co.uk

7. PLACE OF WORK AND RESIDENCE

Members of staff will be based on the John Anderson Campus, unless otherwise stated in the letter of appointment. The Department/School in which the post is initially placed will be specified in the letter of

appointment although there will be an expectation to work at such other places as required in the course of employment.

If the need arises for members of staff to work outside the UK for a period (or periods) of more than one month then such arrangements will be subject to mutual agreement. Members of staff would then be provided with a statement in advance setting out the terms covering such periods of employment.

The University does not normally place specific restrictions upon the place of residence of members of staff. All staff are, however, expected to reside in a location which is compatible with the satisfactory fulfilment of all the duties associated with their appointment.

8. CONSULTANCY/FURTHER ACTIVITIES

To support the strategic objectives of the University and to facilitate individual professional development, the University encourages staff to engage in professional activities with outside bodies related to their field of work. In many cases, such activity will be approved on the basis that it represents University knowledge exchange activity and should therefore be treated as part of the individual's overall workload and managed through the University's systems. It is also recognised that there will be some cases where an activity is entirely separate from the University and should thus be notified/approved as a personal business activity. For further information please refer to the "University Procedure in relation to Work for Outside Bodies including Consultancies", which forms part of the employment contract and can be accessed at www.strath.ac.uk/hr

9. DISCIPLINARY AND GRIEVANCE PROCEDURES

Further information on the University's disciplinary and grievance procedure can also be found at www.strath.ac.uk/policies/hr or on request from Human Resources.

10. NOTICE AND TERMINATION

Members of staff are employed on the conditions indicated in individual letters of appointment and any accompanying papers. The University is not obliged to give notice of termination or continue any employment beyond the end of that period. Where the period of the contract of employment is for one year or less it may be terminated short of the fixed term period by one months notice on either side. Where the period of the contract of employment is for more than one year, or where there have been a further contract or series of contracts immediately consecutive, the employment may be terminated short of the fixed term period by three months' notice on either side, except during the probationary period when the notice period is one month.

If the appointment is for a fixed term it will expire at the end of the period without the necessity for notice.

Revised April 2016