**Job Description**

**1. Job Details**

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| Job Title:  | Oceanographic Instrumentation Support Scientist  | Job Family: | Technical & Experimental |
| Line Manager: | Senior Oceanographic Instrumentation Support Scientist | Grade range | Grade 5 or 6 (depending on expertise) |
| Full Time/Part Time:  | Full Time (37hrs per week) | Duration of Appointment: | Open-ended  |

**2. Job Purpose**

To support the data acquisition, processing and analysis activities in the area of physical oceanography.

**3. Main Responsibilities**

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| *Role Description* | *Approx. %**of time* |
| Instrumentation: field equipment manager, with a focus on the oceanographic instrumentation pool in support of the Research / Education / Enterprise goals of the physical oceanography group and wider science themes. This includes the scheduling, procurement, maintenance, calibration, debugging and testing of the equipment, as well as survey planning, administrative duties and health & safety compliance. | 20 |
| Data acquisition and seagoing: lead in the deployment and operations of Physics instrumentation at sea, from local fieldwork to offshore cruises.   | 25 |
| Data processing and analysis: develop and document innovative, robust software code for data Quality Control, oceanographic calculations and processing of global data sets. Ensure our data conforms to FAIR Data Principles (Findable, Accessible, Interoperable, and Reusable) via version control software and online data repositories~~.~~ | 40 |
| Robotics: assist with Robotics operations (training will be provided). Join the pool of glider pilots and take turns on the piloting roster as required (approximately one week out of four). This work includes out of hours duties. | 10 |
| Logistics: organise fieldwork logistics and equipment shipments. Lab manager for physics instrumentation room and CTD lab.  | 5 |
| Be pro-active in the application of SAMS Health and Safety Procedures | Ongoing |

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**4. Planning and Organising**

* Planning data processing and analysis according to projects deadlines.
* Implementing and testing instrument software and processing code.
* Managing usage of the moored and ship-based instrumentation pool.
* Maintaining equipment database and associated booking systems.
* Planning and delivering the deployment and recovery of oceanographic instrumentation over short and long timescales.
* Organising the procurement of new instruments, maintenance, factory calibrations and servicing, which require advance planning due to long lead times.
* Organising instrument shipments and fieldwork logistics.

 - Developing and maintaining Risk Assessments, Safe Systems of Work and Standard Operating Procedures for oceanographic instrumentation.

**5. Problem-Solving**

* Anticipating problems and develop solutions.
* Ability to work as independent technician on national and international research cruises.
* Trouble-shooting instruments in the lab and in the field. Assessing and debugging recently recovered instrumentation prior to redeployment whilst at sea, sometimes alone, under extremely tight time constraints at sea.
* Ability to interpret specialist documents e.g., technical drawings and electrical / electronic schematics.
* Ability to develop and implement data processing and analysis methods in close collaboration with the scientific teams.
* Working closely with researchers to develop analysis software/code for post-processing of physical oceanographic data: basic processing, QC, calculation of ocean diagnostics, integration with other global datasets.
* Developing automated and manual quality-control procedures for a variety of real-time and delayed-mode datasets (e.g., gliders, CTDs, moorings).

**6. Decision-Making**

* Decisions related to the long-term management of the oceanographic instrumentation pool, typically around the serviceability and calibration of instruments.
* Advising staff, students, and Enterprise (SAMS commercial trading arm) with regards to their data collection needs e.g., the suitability and availability of instruments in the pool.
* Assessing instruments test results. Assessing oceanographic data quality and deciding on processing methodologies.
* Use available information and experience to propose alternative solutions.
* Be able to propose cost-effective, evidence-based solutions and articulate those so that effective decisions can be made.
* Be able to decide and articulate work priorities and act on those.
* Set realistic deadlines.

**7. Key Contacts/Relationships**

* Working within the Instrumentation & Robotics team.
* Working in close collaboration with project PIs, researchers, and PhD students.
* Working with other SAMS staff requiring the use of oceanographic instrumentation and/or processing of data; training them when appropriate.
* Liaising with boat crews and vessel managers.
* Liaising with external collaborators and project partners (sometimes international).
* Liaising with instruments manufacturers for procurement, maintenance, and repairs.
* British Oceanographic Data Centre (BODC).

**8. Knowledge, Skills and Experience needed for the Job**

**Essential**

* Bachelor’s degree in a quantitative field (marine science, engineering, physics, maths, environmental science).
* Considerable sea-going expertise.
* Extensive experience handling and operating oceanographic instrumentation e.g. CTDs, current-meters, moored instruments and other sensors.
* Ability to interpret data from oceanographic instruments with respect to determining proper functioning / calibration / configuration.
* Experience in basic processing and QC of oceanographic data.
* Proficient in Matlab or Python programming.
* Basic electrical / electronic and mechanical knowledge and skills required for field assessment and repairs.
* Ability to clearly communicate methods, results and difficulties encountered for both instrumentation and data.
* Technical writing skills are needed to ensure reports and software documentation is clear to an oceanographer or other project stakeholders.
* Pro-active individual who can manage workload and able to cope with changing priorities and successfully meet deliverables on time.
* Excellent team-working skills.
* Conscientious, pays attention to details.
* Flexible to the needs of the role.
* Willingness to learn new skills.
* Ability and willingness to work in sometimes challenging conditions (at sea, polar regions, remote locations, at night).
* Must be able to work at sea and be able to successfully pass ENG1 medical and STCW95 Sea Survival course, required for attendance on scientific offshore cruises.

**Desirable**

* Master's degree or PhD.
* Experience designing and deploying oceanographic moorings.
* Experience working with autonomous platforms (gliders, AUVs, ROVs).
* Experience in advanced oceanographic data analysis.
* Experience working in a LINUX environment.
* Experience of acting as crew on small inshore vessels.

**9. Dimensions – Scope of role**

* Manage the physical oceanography (moored and ship-based) instrumentation pool (~120 instruments).
* Co-ordinate the management and administration of other marine field equipment.
* Provide instrumentation support for SAMS marine fieldwork activities locally and offshore.
* Provide oceanographic data processing support for SAMS projects.
* Writing of technical reports.
* Possibly contributing to research papers and presenting at conferences.

**10. Any other relevant information**

Operating in a wide ranging, rapidly changing and often challenging technical field, requiring very specialist knowledge.

There are occasions in the job where the holder may be working alone, in challenging conditions, and/or out-of-hours when decisions have to be made quickly and efficiently to ensure the safety of personnel and/or equipment and data quality.

Allowance for offshore seagoing time and out-of-hours glider piloting.

Contribute to relevant commercial opportunities and teaching as appropriate.

The post holder may be required to perform duties other than those given in the job description for the post. The particular duties and responsibilities attached to posts may vary from time to time without changing the general character of the duties or the level of responsibilities entailed**.**

[WHAT SAMS CAN OFFER YOU (please right click and select ‘open in new tab’)](https://vimeo.com/411370772)

Our Values and culture

We strive to be a world-class marine science enterprise that underpins regional, national, and international policy, and societal action to secure healthy and sustainable oceans.

As a workforce, we have a strong family and team culture, helping each other to achieve our goals.

Remuneration

We offer a competitive salary and pension as well as employee benefits package. We also have a number of supportive policies to assist absence, family, and other leave types.

Career Goals

SAMS provides a supportive learning and career growth environment for those looking for that next step in their career or upskill in the workplace. This may be through opportunities to develop techniques, learn more about the science objectives for the group, gain some tutorial opportunities, as well as attend meetings and CPD events.

We’ll provide you with a good start as you join SAMS

SAMS provides an excellent induction which is a great introduction to the organisation, the facilities, your department and team, and provides that support that you need over the early months joining a new organisation. We will also provide you with office space, computing equipment and ensure this is ready for you on your first day of work.

Employee Benefits

In addition to a general remuneration package which includes a generous salary, pension, and sickness absence policy, we offer a number of employee benefits to our staff, some of which are listed below:

* Flexible & Hybrid working arrangements
* Purchase of additional annual leave – up to 20 days per annum
* Access to shopping discounts as well as local shop and leisure discounted memberships
* Cycle to work scheme
* Purchase of technology
* Payroll Giving
* Salary Sacrifice – pensions
* Access to wellbeing portals which provide support for mental health, nutrition and fitness and GP referral scheme
* Occupational health support
* Welfare support on site
* Access to CBT sessions, where required
* Sabbatical scheme
* A number of training and development courses to assist you with your career development – leadership, coaching and mentoring.

SAMS is part of the University of the Highlands & Islands and holds an Athena SWAN Bronze award. SAMS is currently working towards a silver award.

As an Academic Partner of UHI, SAMS is designated as an educational establishment and subject to the provisions of the Protection of Children (Scotland) Act. Certain roles may be subject to a satisfactory check by Disclosure (Scotland) as a condition of their appointment.

Applications must include CV and Cover Letter and should be sent electronically to recruitment@sams.ac.uk quoting Job Ref. ‘D30/22.ED’ in the subject line.

The closing date for applications **8th May 2023**

**Interviews will be held by the end of May 2023**

*Please note, we prefer to contact referees prior to interview*

Guidance for Applicants

Candidates must have the rights to work in the UK.

Your application – what are we looking for?

We are looking for a full CV – please remember to document all your relevant work experience, listed with the most recent first. You should also include your educational achievements with you most recent qualification first.  You should include skills and competencies gained from previous employment or education. This should be specific to the job description.  Also, please include details of two referees, one referee at least from your current role, who we may contact if invited for interview.

We enjoy reading cover letters and these are an important part of the application. In the letter, connect your past accomplishments with the requirements listed in the job description. Focus on your most relevant experience, qualifications, and skills. Where possible, quantify your accomplishments with facts and data.

 ***Useful links***

* [How to write a flawless cover letter](https://career-advice.jobs.ac.uk/cv-and-cover-letter-advice/how-to-write-a-flawless-cover-letter-in-2020/) (please right click and select open in new tab)
* [How to write a CV](https://www.reed.co.uk/career-advice/how-to-write-a-cv/) (please right click and select open in new tab)