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| Last updated: | 13/06/24 |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow in Palaeoclimate reconstruction and data analysis** | | |
| Standard Occupation Code: (UKVI SOC CODE) | 2119 - Natural and social science professionals | | |
| School/Department: | Geography and Environmental Science | | |
| Faculty: | Environmental and Life Science | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Dr Zoë Thomas | | |
| Posts responsible for: |  | | |
| Post base: | Office-based/Non Office-based (see job hazard analysis) | | |

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| Job purpose |
| To undertake research in accordance with the specified research project under the supervision of the award holders (Dr Zoë Thomas – Southampton) and liaise with the rest of the project team. To undertake writing of publications, some project management and engagement activities. |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | To develop and carry out scientific research on South Atlantic palaeoclimate | 60 % |
|  | Preparation of journal articles for submission to leading peer-reviewed international journals. | 15 % |
|  | Preparation and delivery of papers at key national and international conferences and  project workshops and outreach events. | 10 % |
|  | Carry out administrative tasks associated with wider project, for example risk assessment of research activities, organisation of project meetings and documentation. | 5 % |
|  | Collaborate/work on original research tasks with collaborators in other institutions | 5 % |
|  | Any other duties as allocated by the line manager following consultation with the post holder. | 5 % |

| Internal and external relationships |
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| The post will report to, and be supported by, Dr Zoë Thomas (School of Geography and Environmental Science), with additional support from Dr Gordon Inglis (School of Ocean and Earth Science). The post will also liaise with the other postdoctoral researcher on the team, and external Project Partners.  May have additional reporting and liaison responsibilities to external organisations e.g. UKRI.  May be asked to serve on a relevant School/Department committee.  Collaborators/colleagues in other work areas and institutions.  May have an opportunity to contribute more widely to School activities, e.g. teaching, depending on individual aspirations and in conjunction with discussions with line managers. |

| Special Requirements |
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| To be available to participate in fieldwork as required by the specified research project.  To be able to design and undertake laboratory analyses of sediment cores  To be able to analyses multi-proxy time series data for paleoclimate reconstruction  To attend national and international conferences for the purpose of disseminating research results. |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | PhD or equivalent professional qualifications and experience in palaeoclimate reconstruction from sediment archives.  Detailed understanding and knowledge of the reconstruction of palaeoclimate from Quaternary sedimentary deposits using biomarkers and other multiple proxies.  Time series data analysis methods and use of multiple time series. | PhD in Palaeoclimate / Palaeoenvironmental data generation and analysis.  Knowledge of palaeoclimate science, laboratory methods for extraction and purification of lipids from sediment cores, and other geochemical techniques.  Knowledge of pollen separation using flow cytometry  Experience of statistical methods for time series analysis and data/model syntheses methods | CV, Covering letter, references and Interview. |
| Planning and organising | Able to organise own research activities to deadline and quality standards, including fieldwork. |  | CV, Covering letter, references and Interview. |
| Problem solving and initiative | Able to develop understanding of complex problems and apply in-depth knowledge to address them.  Able to develop original techniques/methods. | Ability to undertake laboratory work and develop/apply new methods, and to undertake statistical time series analyses. | CV, Covering letter, references and Interview. |
| Management and teamwork | Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development.  Interest in working across disciplinary areas (climate modelling, data science, machine learning). | Happy working within teams in the field, meetings and laboratory contexts. | CV, Covering letter, references and Interview. |
| Communicating and influencing | Communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience (academic and non-academic sector).  Able to present research results at group meetings and conferences.  Able to write up research results for publication in relevant peer-viewed journals.  Work proactively with colleagues in other work areas/institutions, contributing specialist knowledge to achieve outcomes. | Happy communicating with people face-to-face and online to problem solve, present data and receive feedback. | CV, Covering letter, references and Interview. |
| Other skills and behaviours | Understanding of relevant Health & Safety issues.  Positive attitude to colleagues and students and awareness of EDI. | Confident, collegiate and collaborative, not afraid to give and take constructive criticism or praise. | CV, Covering letter, references and Interview. |
| Special requirements | Able to attend national and international conferences and remote fieldwork. | Confident and able to spend time away for focussed periods of training, laboratory work and data capture.  Ability to manage and cope with stressful situations under pressure of deadlines (presenting, reporting). | CV, Covering letter, references and Interview. |

**JOB HAZARD ANALYSIS**

**Is this an office-based post?**

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| Yes | If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below. |
| No | If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below.  Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder. |

## - HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

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| **ENVIRONMENTAL EXPOSURES** | **Occasionally**  (<30% of time) | **Frequently**  (30-60% of time) | **Constantly**  (> 60% of time) |
| Outside work | Y |  |  |
| Extremes of temperature (eg: fridge/ furnace) | Y |  |  |
| ## Potential for exposure to body fluids |  |  |  |
| ## Noise (greater than 80 dba - 8 hrs twa) |  |  |  |
| ## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below: | Y |  |  |
| Frequent hand washing |  |  |  |
| Ionising radiation |  |  |  |
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| ## Food handling |  |  |  |
| ## Driving university vehicles(eg: car/van/LGV/PCV) | Y |  |  |
| ## Use of latex gloves (prohibited unless specific clinical necessity) |  |  |  |
| ## Vibrating tools (eg: strimmers, hammer drill, lawnmowers) |  |  |  |
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| Load manual handling | Y |  |  |
| Repetitive crouching/kneeling/stooping |  |  |  |
| Repetitive pulling/pushing | Y |  |  |
| Repetitive lifting |  |  |  |
| Standing for prolonged periods | Y |  |  |
| Repetitive climbing (ie: steps, stools, ladders, stairs) |  |  |  |
| Fine motor grips (eg: pipetting) | Y |  |  |
| Gross motor grips |  |  |  |
| Repetitive reaching below shoulder height |  |  |  |
| Repetitive reaching at shoulder height |  |  |  |
| Repetitive reaching above shoulder height |  |  |  |
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| Face to face contact with public | Y |  |  |
| Lone working | Y |  |  |
| ## Shift work/night work/on call duties |  |  |  |