

**JOB DESCRIPTION**

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| **Job Title:** | Postdoctoral Research Assistant in Earth System Modelling |
| Department / Unit: | Earth Sciences |
| **Job type** | Professional Services |
| **Grade:** | 7 |
| **Accountable to:** | Dr Alexander Dickson |
| **Accountable for:** | N/A |
| **Purpose of the Post** | |
| To work within the DISTILL project team to simulate nutrient biogeochemistry and organic carbon fluxes across geological time. | |
| **Key Tasks** | |
| To parameterise the (isotopic) cadmium and osmium cycles in Earth System models (including cGENIE, SCION and/or COPSE) to enable forward-modelling of isotopic distributions in the ocean.  To set up and run model simulations of geochemical changes in the ocean across short periods of global-scale environmental perturbation.  Working closely with other members of the DISTILL team, including at partner institutions, to design and test approaches for quantifying marine organic carbon burial fluxes, and oxidative carbon emissions from model results.  To disseminate findings of the research by presenting at scientific meetings and by writing and submitting papers to peer-reviewed scientific journals.  To contribute to the overall activities of the DISTILL research team and the department as appropriate, including the induction, direction and co-supervision of other research staff and students if so requested by the Principal Investigator.  To carry out any other duties as are within the scope, spirit and purpose of the job as requested by the Principal Investigator.  Duties and responsibilities may be amended by the Principal Investigator as necessary, in consultation with the post-holder.  To undergo continued personal professional development. | |
| **Other Duties** | |
| The duties listed are not exhaustive and may be varied from time to time as dictated by the changing needs of the College. The post holder will be expected to undertake other duties as appropriate and as requested by their manager.  The post holder may be required to work at any of the locations at which the business of Royal Holloway is conducted. | |
| **Internal and external relationships** | |
| The following list is not exhaustive, but the post holder will be required to liaise with:  Students  Other members of staff within the school/department and College  Academics in other institutions (University of Leeds, University of California Riverside, University of Birmingham)  and, where relevant, industrial or professional contacts. | |

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| **ROYAL HOLLOWAY** | | |
| **University of London** | | |
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| **PERSON SPECIFICATION FORM** | | |

**Job Title:** Postdoctoral Research Assistant in Earth System Modelling

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|  | **Essential** | **Desirable** |
| **Knowledge, Education, Qualifications**  **and Training**  PhD in Earth Sciences or related subject | X |  |
| **Skills and/or Abilities**  Understanding of biogeochemical cycles and the mechanisms controlling global environmental change.  Ability to use coding languages (Python, Matlab, R, etc) to handle and manipulate large datasets.  Understanding of geochemical datasets, especially isotopic datasets, and their relationship to Earth System processes. | X  X | X |
| **Experience**  Experience using Earth-System models to simulate environmental change.  Experience interpreting geochemical datasets of past environmental change.  Experience of working in a research environment.  Experience presenting and communicating scientific results to a scientific audience.  A strong record of publications relevant to the post commensurate with career stage. | X  X  X | X  X |