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**Job Description**

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| **Job title** | Professor of Computational Chemistry |
| **Department/School** | Department of Chemistry/Institute for Sustainability |
| **Job family** | Education and Research |
| **Reporting to** | Head of Department |
| **Responsible for** | Any research staff/students |
| **Location** | University of Bath premises |

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| **Background and context** |
| This position has arisen due to the departure of a senior staff member and a desire to maintain the strengths of the Department of Chemistry at Bath in computational chemistry. The appointee will be expected to carry out a high-class research programme in computational chemistry as well as teach within the computational chemistry section and undertake appropriate management roles within the Department, Faculty or University. The position is also aligned with the University's new Research Institute for Sustainability.  For research purposes, the Department of Chemistry is structured in five broad overlapping research themes: Analytical, Health, Interfaces, Materials and Transformations. These research themes are used as a vehicle to improve progress and achievement in research funding, outputs and impact and all themes include both experimental and computational research. In REF2021, the department was ranked 12th in the UK, with 99% of our submitted research activity rated as ‘world-leading’ or ‘internationally excellent’. The department is ranked inside the Top 100 in the world in the most recent QS rankings.  Interdisciplinary research is encouraged and currently projects on a wide range of topics including sustainability, the life-sciences interface and functional materials are in progress, together with teams drawn from other departments across the University. The department contributes significantly to the leadership of the soon-to-be-launched Institute for Sustainability, which builds upon the successes of the Centre for Sustainable and Circular Technologies (CSCT). These bodies provide a very effective means of facilitating cross-university collaborations, most notably with colleagues in Chemical Engineering.  For this position we aim to appoint a computational chemist who aligns with the University's key research theme of sustainability and will contribute significantly to the new research institute. Areas of specific expertise include energy materials and catalysis, though applicants with the appropriate level of expertise in any area of computational chemistry relating to sustainability would be welcomed.  The appointee will contribute to our teaching programme and demonstrate academic leadership. The Department holds an Athena Swan Silver Award reflecting our commitment to Equality, Diversity and Inclusion, and we expect all staff to share this commitment. |

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| **Job purpose** |
| To lead research with high international impact and profile; lead teaching at undergraduate and postgraduate level, and undertake management and leadership duties commensurate with the role. |

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| **Main duties and responsibilities** | |
| The job duties and responsibilities listed below are intended to describe the general nature of the role. The duties and responsibilities and the balance between the elements in the role may change or vary over time depending on the specific needs at a specific point in time, or due to changing needs in the department and institute Jobholders should note that there may not be an immediate requirement to carry out all the activities listed below. | |
| **1** | **Research & scholarship** |
| a | Demonstrate research leadership to ensure the highest standards of ethics and integrity in research, with international collaborations as appropriate to the discipline. |
| b | Lead major collaborative research activity with other institutions or bodies to bring significant benefit to the University’s national and international standing. |
| c | Attract external funding to support major activity in collaboration with other Universities or organisations. |
| d | Maintain a regular output of highest quality research which is published in leading research journals and national/international conferences or other outputs as appropriate to the discipline. |
| e | Present research (often by invitation) at international conferences and/or at other appropriate high-profile events. |
| f | Provide leadership to maximise the non-academic impact of research, including substantial knowledge or technology exchange and/or public engagement activities, including a range of partnerships with external organisations. |
| g | Contribute significantly to the development and implementation of research strategies in the Department. |
| h | Contribute to the enhancement of postgraduate research student environment, including through leadership of doctoral training centres and partnerships. |
| **2** | **Teaching** |
| a | Deliver a wide range of effective and inclusive teaching and supporting learning activities. |
| b | Assess the work and progress of students and provide them with constructive feedback. |
| c | Seek ways of improving performance by reflecting on teaching design and delivery and obtaining and analysing feedback. |
| d | Lead and develop innovative approaches to improving the learning environment, including use of learning technologies and techniques. |
| e | Engage in professional development in relation to teaching, learning and assessment, related to academic, institutional and/or other professional practises. |
| f | Write/author teaching materials in appropriate discipline area. |
| g | Develop and market curricula or methods of teaching designed to attract new client groups. |
| h | Engage in pedagogic research or practitioner research and other scholarly activities. |
| i | Contribute to outreach and/or Widening Participation public engagement activity within the Department, Faculty/School or University. |
| **3** | **Management and leadership** |
| a | Represent the University as an acknowledged expert in the appropriate discipline e.g. participate as an expert witness or give professional advice to government bodies and other agencies. |
| b | Provide leadership that will influence and shape the output of their department and contribute directly to the level of success of the department. |
| c | Represent the Department/Faculty’s activities with groups beyond the University – especially internationally – bringing benefit to the University over a sustained period. |
| d | Establish and develop sustainable academic networks with other HE/FE institutions nationally and internationally which bring benefit to the Department and University. |

**Person Specification**

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| **Criteria** | **Essential** | **Desirable** |
| **Qualifications** |  |  |
| PhD or equivalent in relevant discipline  Membership of professional body (e.g. Royal Society of Chemistry, American Chemical Society)  Higher education teaching qualification or professional recognition (e.g. PGCert, FHEA or equivalent) | √ | √  √ |
| **Experience/Knowledge** |  |  |
| Acknowledged expert in appropriate discipline  Sustained record of publications in leading peer-reviewed journals at an international level  Sustained record of research funding as appropriate to the discipline  Able to show evidence of international recognition and esteem (such as journal editorships, invitations to be conference organisers, research council board membership)  Evidence of effective achievements in teaching and/or supported learning | √  √  √  √ | √ |
| **Skills** |  |  |
| Academic leadership  Ability to articulate a research vision and strategy for development, implementation and delivery of successful research projects  Excellent written and verbal communication skills including presentation skills  Excellent interpersonal skills, communication style and team working  Evidence of positive working relationships within the University, community, business and other partners | √  √  √  √  √ |  |
| **Attributes** |  |  |
| Commitment to excellence in research and teaching and to providing the highest quality experience for students  Commitment to working within professional and ethical codes of conduct | √  √ |  |