



JOB DESCRIPTION

**Assistant Professor in Computational Chemistry
School of Chemical Sciences
Faculty of Science and Health
Permanent**

Dublin City University

Dublin City University (DCU) is a young, ambitious and vibrant university, with a mission 'to transform lives and societies through education, research, innovation and engagement'. Known as Ireland's 'University of Enterprise', DCU is a values-based institution, committed to the delivery of impact for the public good. DCU was named Sunday Times Irish University of the Year 2021.

DCU is based on three academic campuses in the Glasnevin-Drumcondra region of north Dublin. More than 18,000 students are enrolled across five faculties – Science and Health, DCU Business School, Computing and Engineering, Humanities and Social Sciences and DCU Institute of Education.

DCU is committed to excellence across all its activities. This is demonstrated by its world-class research initiatives, its cutting-edge approach to teaching and learning, its focus on delivering a transformative student experience, and its positive social and economic impact. The university continues to develop innovative programmes in collaboration with industry, such as the DCU Futures suite of degrees, which are designed to equip graduates with the skills and knowledge required in a rapidly evolving economy.

DCU's pursuit of excellence has led to its current ranking among the top 2% of universities globally. It is also one of the world's Top Young Universities (QS Top 100 Under 50, Times Higher Top 150 Under 100). In the Times Higher Education University Impact Rankings 2021, DCU ranked 23rd in the world for its approach to widening participation in higher education and its ongoing commitment to eradicating poverty, while it ranks 38th globally for its work in reducing inequality and 89th globally for gender equality.

The university is ranked 23rd in the world and first in Ireland for its graduate employment rate, according to the 2020 QS Graduate Employability Rankings. Over the past decade, DCU has been the leading Irish university in the area of technology transfer, as reflected by licensing of intellectual property.

Overview of the department

The School of Chemical Sciences, is one of Ireland's most progressive and highest achieving Schools with outstanding facilities, housed within a modern and dynamic city campus. Our goal is to develop graduates with the ability to critically evaluate, and then to solve, chemical and pharmaceutical problems, preparing the highest quality graduates capable of meeting the challenges of modern industry and research. The School is highly successful at attracting large scale research funding, with our researchers having roles within nationally significant university/industry collaborative initiatives and European funded Integrated Training Networks. The School of Chemical Sciences is one of the leading academic schools within DCU. The School undergraduate programmes include the BSc in Analytical Science, the BSc in Chemical and Pharmaceutical Sciences, and the BSc in Chemistry with Artificial Intelligence. The School also contributes to the BSc in Environmental Science & Technology and BSc in Science Education.

Role Profile

The School plans to make an appointment at Assistant Professor level in Computational Chemistry (permanent post), who will enhance and consolidate research in at least one of its three key research themes: Climate Action – Energy, Water & Sustainability; Advanced Materials & Devices; Therapeutics & Diagnostics. The successful individual will also be expected to contribute to teaching, curriculum development, and administrative activities in the School, across all levels.

The appointee will also be expected to assist the School in implementing an innovative curriculum project, specifically delivering into the new bachelor programme in Chemistry with Artificial Intelligence. The candidate will report to the Head of School and work closely with other colleagues.

Duties and Responsibilities

The duties and responsibilities of the position include, but are not restricted to, the following:

Teaching and Learning

The appointee will teach computational chemistry across lectures and practical modules to both undergraduate and postgraduate degree programmes in the School, specifically into the delivery of the School's undergraduate programmes, namely BSc in Analytical Science, BSc in Chemical and Pharmaceutical Science and BSc in Chemistry with Artificial Intelligence. The appointee will contribute to the design and development of future taught Masters programmes as appropriate. In addition, the appointee will supervise final year Bachelors and/or Masters level research projects and undergraduate placements. The School is dedicated to a flexible mode of module delivery across all of its programmes and the successful individual(s) will be expected to develop on-line components to their assigned modules.

Research and Scholarship

The appointee will be expected to establish an independently-funded and cutting edge research programme within the School of Chemical Sciences. This programme should align with the Research and Innovation constituent strategy of the DCU Strategic Plan particularly supporting our key research themes: Climate Action – Energy, Water & Sustainability; Advanced Materials & Devices; Therapeutics & Diagnostics. The research should also be aligned with national and local priorities, and relevant national and EU priority areas. The appointee will be expected to publish original results and findings in high-impact international journals, seek funding through national and international agencies and/or

industry to aid research initiatives, supervise postgraduate research students, and contribute to existing School/Centre and DCU-wide research initiatives and expand their collaborative network within DCU, nationally and internationally.

Service and Contribution to the University and Society

The appointee will undertake administrative functions related to the activities of the School of Chemical Sciences and Faculty of Science and Health. Such duties will be assigned by the Head of School and may include some of the following: degree programme coordination; participation in committees; visits to students on industrial placement within the DCU INTRA programme; representation of the School in marketing and recruitment of students; participation in open days; organisation of conferences and seminars, etc.

Qualifications and Experience

Essential:

- Individuals must hold a Ph.D with a track record of research in the area of computational chemistry that includes senior/first author publications.
- Have a research profile that demonstrates a pathway to future research independence such as Fellowship, Co-Investigator, Collaborator and/or Principal Investigator grant applications to date.

Candidates must also be able to demonstrate evidence of:

- Excellent interpersonal and communication skills consistent with the highest quality of teaching and learning, together with evidence of successful teamwork and a collegial approach
- An education background that can deliver computational chemistry related modules to our core undergraduate/postgraduate programmes.

Desirable:

- Experience in high quality university-level teaching (Level 8 and/or 9).
- Three years' relevant post-doctoral experience or industrial experience.

Essential Training

The postholder will be required to undertake the following essential compliance training: Orientation, Health & Safety and Data Protection (GDPR). Other training may need to be undertaken when required.