



## **JOB DESCRIPTION**

Applications are invited from suitably qualified candidates for the following position

**Assistant Professor in Analytical/Materials Chemistry  
School of Chemical Sciences  
Fixed Term Contract up to March 2025**

### **Dublin City University**

Dublin City University [www.DCU.ie](http://www.DCU.ie) 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 and Transformation', it is committed to the development of talent, and the discovery and translation of knowledge that advances society and the economy. DCU is the Sunday Times Irish University of the Year 2021.

The University is based on three academic campuses in the Glasnevin-Drumcondra region of north Dublin. It currently has more than 18,000 students 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 creating a transformative student experience, and its positive social and economic impact. This exceptional commitment on the part of its staff and students has led to DCU's ranking among the top 2% of universities globally. It also consistently features in the world's Top 100 Young Universities (currently in QS Top 70 Under 50, Times Higher Top 150 Under 100).

DCU is placed 84th in the world, in the Times Higher Education University Impact Rankings – measuring higher education institutions' contributions towards the UN Sustainable Development Goals. Over the past decade, DCU has also been the leading Irish university in the area of technology transfer, as reflected by licensing of intellectual property.

Over its relatively short history DCU has developed a strong reputation nationally and internationally for pioneering innovations in higher education. The university is embarking on a period of significant investment in learning innovation across all of its Faculties. This initiative will help us transform the learning experience of undergraduate students at DCU, reconceptualizing learning opportunities, creating authentic connections between the classroom and enterprise, and embedding digital literacies, disciplinary competencies and transversal skills required to truly future-proof our graduates for the rapidly changing workplace. DCU is joined in this project by a strong consortium of enterprise partners, representing key employment sectors in the Irish economy and with a strong presence in DCU's primary catchment area. This programme of innovation is funded under the Irish Government's Human Capital Initiative (HCI) supported by the National Training Fund. It will deliver on the ambitions we have to reimagine undergraduate curricula and to embed innovative pedagogies, enhanced use of technology and deep industry engagement.

## **School of Chemical Sciences**

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 is ranked in the top 300 chemistry schools/departments in the world (QS Rankings), a reflection of the School's ambitious research activities and its undergraduate/postgraduate degree programmes. These programmes include Common Entry into Chemical Sciences, the School's two core undergraduate programmes, namely the BSc in Analytical Science and the BSc in Chemical and Pharmaceutical Sciences as well as the BSc in Environmental Science & Technology and BSc in Science Education.

### **Role Profile**

The appointee will be expected to support the School in implementing an innovative curriculum project, specifically:

- Developing and delivering a deeper expertise in the embedding of virtual laboratories as part of our laboratory skills development within our programmes, ensuring an industry engaged, research-led approach, integration of challenge based learning, digital tools and hybrid delivery.
- Broader implementation of teaching approaches into other target programmes in the school, and
- Engaging with university-wide elements of the initiative including cross faculty cooperation, project evaluation and reporting.

### **Duties and Responsibilities**

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

#### **Teaching and Learning:**

The role includes teaching, supervision of laboratory sessions, student mentoring and supervision of taught projects. The successful applicant will be required to prepare, deliver and assess a range of core subjects in a manner consistent with DCU's high academic standards and in a hybrid environment which involves campus and elements of remote delivery. The appointee will teach on both undergraduate and postgraduate degree programmes in the School. In addition, the appointee will supervise final year Bachelors and/or Masters level research projects and undergraduate placements. Teaching also extends to encourage and promote innovation in curricula development and development of new programmes and specialisms.

Typical activities include:

- Contributing to the design and development of new programmes.
- Developing and delivering new or reconceptualised modules and resources.
- Designing and assessing examinations and other types of coursework.
- Using a wide range of teaching and assessment methodologies which foster a deep approach to learning and equip students with the skills and attributes needed to be lifelong

learners including challenge based learning and concentrated and immersive learning experiences.

- Co-designing with other academics and industry partners a suite of tools and initiatives that support the transversal skills pathway and embedding transversal skills development, diagnostics and assessments into new and existing programmes.
- Supervision of laboratory sessions, and student mentoring.
- Proactive engagement with the renewal of existing courses and programmes.
- Engagement with professional development for teaching particularly in that related to the approaches embedded in the project.

### **Research and Scholarship:**

The appointee will be expected to contribute to the research activity within the School, and should align with the Research and Innovation constituent strategy of the DCU Strategic Plan and should foster collaboration(s) both within and beyond the School of Chemical Sciences, particularly supporting our key research themes: Climate Action – Energy, Water & Sustainability; Advanced Materials & Devices; Therapeutics & Diagnostics. 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 funds for research initiatives, supervise postgraduate research students, and contribute to existing School/Centre and DCU-wide research initiatives and expand their network within DCU, nationally and internationally. The appointee will be expected to have clearly articulated research interests and research profile development plans that compliments the school's current research priorities, and which will underpin the embedding of virtual laboratories as part of our laboratory skills development within our programmes.

### **Service and Contribution to the University and Society:**

Examples include:

- Active engagement with planning, quality review and improvement processes, and external programme accreditations.
- Involvement with appropriate professional bodies and associated initiatives.
- Development and delivery of the international activities of the School including international travel to do so.
- Adoption of some administrative functions related to the activities of the School, the Faculty, and the wider University. Such duties will be defined 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; student recruitment.

### **Relationships**

The position will report to the Head of School and work closely with other colleagues, the Teaching Convenor/Associate Dean of Teaching and Learning and industry partners. Building positive relationships with professional support staff and technical and pedagogy specialists and engagement with key stakeholders within and outside of DCU is an important part of this role.

### **Qualifications and Experience**

- Applicants must hold an honours degree in a relevant discipline, and should be qualified to a post-graduate level with a PhD specialism in analytical, physical and/or materials chemistry that includes corresponding and senior/first author publications.

- The successful candidates should ideally have a minimum of two years relevant post doctoral experience.
- Applicants must have demonstrated teaching experience at undergraduate and/or postgraduate level, ideally including experience in innovative pedagogies and/or assessments, international and/or online or technology-assisted teaching.
- Applications are specifically invited from those with strong research credentials and publication record
- The successful applicants will also have demonstrated potential to establish an independent research programme and attract research funding from competitive research funding schemes and/or industry.
- Candidates should demonstrate excellent interpersonal and communication skills consistent with the highest quality of teaching and learning, together with evidence of successful teamwork and a collegial approach.