



JOB DESCRIPTION

**Technical Officer/Senior Technical Officer
School of Physical Sciences
Faculty of Science & Health
Permanent Contract**

Dublin City University

Dublin City University (DCU) is a leading innovative European University. It is proud to be one of the world's leading Young Universities and is among the world's top 2% globally. DCU is known as Ireland's University of Impact, with a mission to 'transform lives and societies' and focuses on addressing global challenges in collaboration with key national and international partners and stakeholders.

DCU has over 20,000 students in five faculties spread across three academic campuses in the Glasnevin-Drumcondra area of North Dublin. Thanks to its innovative approach to teaching and learning, the University offers a 'transformative student experience' that helps to develop highly sought-after graduates. DCU is currently No. 1 in Ireland for Graduate Employment Rate, and for graduate income (CSO).

DCU is a research-intensive University and is home to a number of SFI-funded Research Centres. The University participates in a range of European and international research partnerships. DCU is also the leading Irish university in the area of technology transfer as reflected by licensing of intellectual property.

As a 'People First' institution, DCU is committed to Equality, Diversity and Inclusion - a University that helps staff and students to thrive. The University is a leader in terms of its work to increase access to education, and is placed in the world's Top 10 for reducing inequalities in the Times Higher Education Impact Rankings.

School of Physical Sciences

The School of Physical Sciences www.dcu.ie/physics at Dublin City University has a high standing within Ireland and internationally, for both its teaching and research activities. There are more than fifty researchers within the School's research groups including postgraduate students, postdoctoral researchers, research officers, and administrators. Physics research at DCU covers **data analytics and modelling, astronomy/astrophysics, biomedical physics, physics education, plasma and laser-**

plasma physics, materials and nanotechnology as its main priority areas. Researchers in the School lead and contribute to several research centres, including, four National Research Centres – National Centre for Plasma Science and Technology (NCPST), National Centre for Sensor Research (NCSR), INSIGHT and ADAPT, and University Approved Centres - Centre for Astrophysics & Relativity (CfAR), Centre for Advancement of STEM Teaching and Learning (CASTeL), and Water Institute.

The School has been awarded substantial research funding and programme grants from national funding agencies, including [Science Foundation Ireland](#), [Irish Research Council](#), [Enterprise Ireland](#), [Sustainable Energy Authority of Ireland](#), [Higher Education Authority PRTL programme](#), and European [Erasmus+](#) and [Framework](#) Programmes.

DCU School of Physical Sciences offers several undergraduate degree programmes, featuring unique blends of physics fundamentals with modern applications: BSc in Applied Physics, BSc in Physics with Biomedical Sciences, BSc in Physics with Data Analytics and BSc in Physics with Astronomy, all of which are entered via a Physics General Entry common first year. A hands-on approach to physics teaching is favoured with an emphasis on the development of experimental and data analytical skills as well as mathematical, computational and reasoning skills. These programmes are delivered through novel and innovative curricula, in partnership with other Schools across the university and industry collaborators. In addition, the School makes important contributions to the curriculum and teaching of the BSc in Science Education programmes and the BSc in Environmental Science and Technology. At postgraduate level, the DCU School of Physical Sciences offers the Professional Diploma in Teaching Physics and the MSc in Astrophysics & Relativity (jointly with the School of Mathematical Sciences). In keeping with its Strategic Plan, the School is modernising our physics programmes available to students through a new innovative curriculum project in partnership with key industry collaborators and other Schools across the university.

Role Profile

The School of Physical Sciences is seeking to appoint a Technical Officer/Senior Technical Officer to join its team of technical officers and provide advanced technical and training assistance to the school in research, teaching and learning and engagement activities. The successful candidate will provide expertise in operating and maintaining high-end experimental equipment, developing the school's research capacity, assisting teaching laboratories, student recruitment and engagement activities.

The technical officer will play a key role in the school in:

- Assisting and optimising experimental research facilities and frontier experimental equipment.
- Ensuring efficient and effective design, delivery and implementation of the school's extensive programme of undergraduate and postgraduate physics laboratory modules.
- Digitalisation of the School's teaching and learning activities – to assist new and existing undergraduate and postgraduate programmes in the School and in line with the School's strong dedication to DCU Futures.

Duties and Responsibilities

Reporting to the Head of School or nominee, the duties and responsibilities attached to the post include, but are not restricted to, the following:

- Assist the Chief Technical Officer and technical team in supervising laboratory and practical work and processes undertaken by staff, researchers and students as required in the school.
- Ensure best practice by supervising undergraduate/postgraduate students during project work when academic staff are unavailable.
- Demonstrate practical techniques, processes, and operation of equipment and software to staff, students and visitors in the teaching laboratory, research activities and projects.
- Assist the Chief Technical Officer and technical team in ensuring School laboratory equipment is functioning effectively and safely.
- Develop new laboratory activities, maintain and upgrade existing laboratory activities.
- Prepare and implement maintenance schedules to meet statutory and university requirements.
- Assist the Chief Technical Officer and technical team in monitoring compliance with health and safety rules and regulations.
- Take responsibility for ensuring reliable, secure and consistent service delivery of day-to-day educational and IT technology.
- Take technical lead on specific educational technology, virtual experiments and other IT projects related to undergraduate student support and teaching enhancement at a school level.
- Assist other technical officers, staff and students on platforms and projects related to use of digital tools in programme development and delivery.

Qualifications and Experience

Essential Criteria:

Applicants for Technical Officer must have an Honours degree (NFQ level 8) in physics or related technical discipline or equivalent qualification/ professional experience in a relevant discipline.

Applicants for Senior Technical Officer must have an NFQ level 9 degree or equivalent qualification/professional experience in a relevant discipline.

- Applicants would ideally have a minimum of four years' relevant experience.
- Possess the relevant scientific and technical skills to assist with the school's research, teaching & learning, and engagement activities.
- Expertise in experimental physics techniques and applications (e.g., instrumentation, electronic systems, programming, interfacing techniques).
- Demonstrable knowledge of current and emerging scientific technologies and their implementation and integration into the laboratory, notably in fields that are particularly relevant to the degree programmes delivered by the School of Physical Sciences.
- Excellent Interactive verbal and written communication skills with experience of working, collaborating and establishing credibility and relationship at all levels.

Desirable Criteria

- Experience with coordinating and conducting successfully new research projects.
- Experience working with high-end experimental equipment (e.g., vacuum technology, plasma systems, microfluidics, lasers, optics and photonics, spectroscopy).
- Experience/engagement with online teaching platforms and technology-assisted learning.

Essential Training

The post holder will be required to undertake the following essential compliance training: GDPR, Orientation and Compliance. Other training may need to be undertaken when required.