



Assistant Professor in Physics (Below Bar)
School of Physical Sciences
Faculty of Science & Health
11 Month Fixed Term Contract

Dublin City University www.dcu.ie is a research-intensive, globally-engaged, dynamic institution that is distinguished both by the quality and impact of its graduates and by its focus on the translation of knowledge into societal and economic benefit. Through its mission to transform lives and societies through education, research and innovation, DCU acts as an agent of social, cultural and economic progress. DCU is Ireland's fastest growing university, and now hosts more than 17,000 students across its three academic campuses: DCU Glasnevin Campus, DCU St Patrick's Campus and DCU All Hallows campus.

School of Physical Sciences

The School of Physical Sciences 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, research technicians and administrators. Physics research at DCU covers physics education, astronomy and astrophysics, low temperature plasmas, intense laser matter interactions, optical/biomedical sensors, microsystems and materials physics. The school has been very successful in winning substantial research funding and programme grants from Science Foundation Ireland <http://www.sfi.ie>, the Higher Education Authority PRTLI programme www.heai.ie/PRTLI, Enterprise Ireland <http://www.enterprise-ireland.com> and the EU Horizon2020, in addition to postgraduate scholarships and postdoctoral fellowships from the Irish Research Council for Science, Engineering and Technology www.research.ie

Research in physics education takes place within the university approved Centre for Advancement of STEM Education www.castel.ie which focuses on research in STEM education at all educational levels.

The School offers three undergraduate physics degree programmes: B.Sc. in Applied Physics, B.Sc. in Physics with Biomedical Sciences and B.Sc in Physics with Astronomy. The school also contributes to the concurrent BSc Science Education programme and leads the pathway for qualification as a second level physics teacher.

Role Profile

The School of Physical Sciences wishes to recruit a new temporary Assistant Professor with expertise in Physics/Physics education to support the delivery of a new programme, the Professional Diploma in Teaching Physics (PDipTP), which is designed to upskill post-primary teachers to meet current Teaching Council subject requirements in Physics at the highest level. This programme has been approved by the Department of Education and Skills. The Award will be delivered by DCU in collaboration with partners in the University of Limerick and NUI Galway.

The programme will ensure that successful candidates:

- Acquire the theoretical and experimental knowledge of physics as well as pedagogical content knowledge that is necessary for effective physics teaching at post-primary level;
- Demonstrate an ability to connect physics content modules and the school physics curriculum;

- Develop a high standard of practical competence in physics teaching as reflective practitioners during their programme of study.

Duties and Responsibilities

-Teaching & Learning

The appointee will be expected to contribute directly to teaching physics at undergraduate level, *via* teaching of physics lecture modules using hybrid learning approaches, teaching of undergraduate physics laboratories, contribution to development of undergraduate physics laboratory activities, student mentoring/tutoring, in a range of undergraduate physics topics. The appointee would also be expected to undertake various administrative duties, including coordinating programme and module delivery with programme partners from NUI Galway and the University of Limerick. The total teaching hours and responsibilities will be defined by the Head of School in line with normal workload allocation.

-Research & Scholarship

The appointee will be expected to engage strongly with research activities and have the desire and capability to collaborate effectively with DCU colleagues engaged in physics and/or physics education research in the School of Physical Sciences and CASTeL. The appointee will contribute to an active and vibrant programme of research activities aligned with one or more the physics research areas in the School of Physical Sciences.

-Service and Contribution to University

The appointee will undertake administrative functions related to the activities of the School of Physical Sciences and Faculty of Science and Health. Such duties will be assigned by the Head of School and may include: programme coordination; participation in University committees; representation of the School in marketing to and recruitment of students; participation in open days; organisation of conferences and seminars, etc.

Candidate Requirements

Essential Criteria

- Honours degree in physics, astrophysics or astronomy, and a minimum qualification of a Masters degree in physics or a related area
- A highly motivated individual on track to develop into a top tier physics academic, with a well-balanced teaching and research profile
- A demonstrable track record of high quality and original research, as evidenced by regular publication in high impact journals, a significant citation rate, presentations at cognate conferences and proven ability in attracting research funding

Desirable Criteria

- PhD in physics or a related area
- Proven experience in hybrid delivery of undergraduate physics lecture and laboratory modules
- Programme management and coordination experience
- Teaching qualification or proven experience in the use of innovative approaches in physics education

Mandatory Training

The post holder will be required to undertake the following mandatory compliance training: GDPR, Orientation, and Compliance.