



**Assistant Professor in Biotechnology
School of Biotechnology
Faculty of Science & Health
Fixed Term Three Year Contract**

Introduction

Dublin City University www.dcu.ie is a young, dynamic and ambitious University with a distinctive mission to transform lives and societies through education, research and innovation. We are a research-intensive, globally-engaged institution, distinguished by both the quality and impact of our graduates, and focus on the translation of knowledge into societal and economic benefit. Excellence in education and research activities has led to DCU's consistent presence in the rankings of the world's top young universities.

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 Biotechnology

The School of Biotechnology www.dcu.ie/biotechnology is the academic unit that leads biotechnology and bioprocessing education and research within the Faculty of Science & Health at Dublin City University (DCU). The school delivers both undergraduate BSc (e.g. Biotechnology, Environmental Science & Technology) and taught MSc postgraduate degree programmes (e.g. Bioprocessing Engineering) in addition to the education and training of research MSc and PhD students under its structured PhD programme, *BioTranslate*. It is an active centre of basic, applied and multi-disciplinary research, supporting clusters of intersecting research themes which link closely with the School's teaching programs. The School has recently invested in upgrading its Bioprocessing Engineering infrastructure and is now home to the Microbial Bioprocessing Facility (MBF), a facility that is equipped with the most modern pilot scale bioreactors in Ireland. Fully automated bioreactors range in size from 3.7 L to 150 L. All Bioprocess Engineering laboratory modules are taught within this facility which is

rapidly becoming the “go-to” location for bioprocess engineering teaching, industrial training in process analytical technology (PAT), industrial product development and brewing.

Relationships

Reporting to the Head of School, the appointee will 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.

The Role

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

- Developing and delivering a new bachelors specialism in Bioprocess Engineering, ensuring an industry engaged, research-led approach, integration of challenge based learning, digital tools and hybrid delivery.
- The 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.

The role includes teaching, supervision of laboratory sessions, student mentoring and supervision of taught projects and research.

The role will encompass activities across the three domains, as follows:

-Teaching and Learning

The successful applicant will be required to support the delivery of the education mission of the University, specifically in the School of Biotechnology. The School is committed to a flexible mode of module delivery across all of its programs and the successful applicant will ideally have experience of teaching in an online environment.

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

In addition to a demonstrable teaching ability, the appointee will be expected to demonstrate a path towards an independent research profile and the ability to secure grant awards from national / international agencies and/or industry to fund their research activities which would include the recruitment of both postgraduate students and postdoctoral research fellows. They will also be expected to contribute to the development of the MBF and expand their collaborative network within DCU, and especially, with industry. The appointee will be expected to have clearly articulated research interests and research profile development plans that underpin the school's current research priorities, and which will underpin senior modules and projects related to the new degree programme(s) or specialism.

-Contribution to the School, Faculty, University and Profession

The appointee will be required to undertake administrative roles related to the activities of the School of Biotechnology and the Faculty of Science & Health as assigned by the Head of School. These roles may include but are not limited to the following: School Executive member; Convenor roles (teaching, research or international), Faculty Management board, Marketing, Safety Committee, Open Days, Conference organisation, Work Placement Tutoring. Participation in courses provided by the University designed to develop skills in such areas as teaching, management and safety will also be expected.

Applicant Requirements

- A PhD in Chemical/Bioprocess Engineering with a track record of research in *microbial* bioprocessing that includes corresponding and senior/first author publications and/or significant experience of working in an industrial microbial bioprocessing environment.
- A flexible, growth mindset with a strong desire to teach outside their specialist area.
- Familiarity with digital learning tools and strong computational skills.
- Experience in high quality university-level teaching (Level 8 and/or 9).
- Experience of module design in both theory and laboratory contexts is highly desirable.
- Have an active research profile that demonstrates a pathway to future research independence such as Fellowship, Co-Investigator, Collaborator and/or Principal Investigator grant applications to date.
- Have excellent interpersonal and communication skills consistent with the highest quality of teaching and learning, together with evidence of successful teamwork and a collegial approach.

Mandatory Training

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