School of Biotechnology | Structured Doctoral Pathways 2024-25

Overview

BioTranslate is the School of Biotechnology's structured PhD programme. It is research-focused, flexible and student-centred. Graduate students registered on the BioTranslate programme will conduct a major laboratory research project, over a period of 3-4 years, in laboratories in the School of Biotechnology and/or associated Research Centres. In addition to acquiring discipline specific research knowledge over the period, BioTranslate students will partake in a range of generic and scientific support modules across multiple subject areas and will thus experience an individualised programme that is tailored to their specific needs.

Selection and Registration

Upon completion of the BioTranslate programme, the student's original research work presented as a written thesis, is the sole means of assessment for the award of PhD. Graduates of the BioTranslate programme will also have accumulated at least 30 ECTS to be awarded following the successful completion of core and elective Graduate Training Element (GTE) modules, the latter chosen in conjunction with the student's supervisory panel. Module BE550 (5 credits), which concerns Induction/Laboratory Safety and Practice, is compulsory and is to be taken in year 1. It is also the policy of the School of Biotechnology that all students who are assigned teaching-related responsibilities must complete BT6071 and BT6072 Laboratory Tutoring, two 5-credit modules to be taken over at least two years. There is an expectation that module loads be evenly distributed across the first three years, with a minimum of 10 credits being taken in any one year. A typical overall balance consists of 1-3 generic (transferable skills) modules and 2-3 discipline-specific modules over the first three years, with year 4 focused exclusively on research. Once approval from the supervisor has been granted, students should register for their approved Faculty GTE modules during the online registration process. However, if you wish to take a non-FSH GTE module you MUST first email the module coordinator listed to check that you are eligible to register for this module, then email science@dcu.ie providing:

- confirmation and proof of approval from module coordinator
- module code and title
- student id number
- qualification code

Progression

The individually-tailored structured pathway for each student should be discussed and agreed in the first instance with their supervisor and progress recorded on the annual PGR2 form.

Induction and Training

Students are encouraged to take advantage of the Graduate Studies Office (GSO) Training Suite for additional training opportunities and opportunities offered by the School as appropriate. All students are required to attend the orientation and induction sessions organized by GSO during year one. GSO communicates details of their training schedule to each student at the beginning of each semester. First-year students are also required to take the Online Research Integrity Training module during year one of their studies. Students are encouraged to take additional training opportunities offered by the School and GSO as appropriate throughout their PhD.

Core Discipline Specific Modules | Year One

- BE550: Biosafety and Laboratory Procedures in Biotechnology – 5 ECTS

Core Discipline Specific Modules | Years One to Three

Teaching and Learning Skills

- BT6071: Year One Laboratory Tutoring – 5 ECTS
- BT6072: Year Two Laboratory Tutoring – 5 ECTS

Elective Modules | Year One to Three

Research Skills and Integrity

- TP602: Research Ethics – 5 ECTS

Communication Skills

- PSYC609: Strategies for Getting Published – 5 ECTS
- LC600: English for Academic Purposes – 5 ECTS
- PSYC523: Science Communication for Graduate Researchers – 5 ECTS

Discipline Specific Research Techniques

- BE515: Fundamentals of Bioreaction Engineering – 5 ECTS
- BE516: Bioseparations – 5 ECTS
- BE519: Fundamental and Applied Immunology – 5 ECTS
- BE533: Gene Cloning and Gene Expression – 5 ECTS
- BE535: Precision Medicine I – 5 ECTS
- BE536: Precision Medicine II – 5 ECTS
- BE537: Professional Skills for Scientists – 5 ECTS
- BE538: Introduction to Cell Biology and Biotechnology – 5 ECTS
- BE580: Introduction to Bioprocess Engineering – 5 ECTS
- BE581: Bioprocess Scale-up and Technology Transfer – 5 ECTS
- BE583: Biopharmaceutical Industry Regulation and Management – 5 ECTS

- BE584: Bioreactor Design, Modelling and Monitoring – 5 ECTS
- PS522: Microfluidics II – 5 ECTS
- BE521AU – Applied Biostatics – 5 ECTS
- BE539AU – Translational Bioinformatics – 5 ECTS

Non-accredited Training Workshops and Masterclasses

- Graduate Studies Office Orientation Programme
- Research Integrity Online Training Module (Physical and Natural Sciences Stream)
- Postgraduate Tutor and Demonstrating Programme

Graduate Studies Office Training Suite

Approval Date: 01/01/2024