

# PHD (MICROBIAL BIOTECHNOLOGY)

## Overview

**Status:** Not on offer

**National Framework Of Qualifications (NFQ) Level:** 10

**NFQ Award Class:** Major Award

**Duration Full Time:** 48 Month(s)

**Total Credits:** 360

**Delivery Method:** In-Person

### Connected Curriculum:

- Employability
- Inter-and Transdisciplinary
- Research Based Teaching
- Sustainability

### Sustainable Development Goals (SDGs):

- Zero Hunger
- Responsible Consumption and Production
- Affordable and Clean Energy
- Affordable and Clean Energy

### Graduate Attributes:

- Creator, evaluator and communicator of knowledge
- Digitally Fluent
- Effective global citizen
- Independent and creative thinker
- Socially Responsible

### Work-Integrated Learning (Including Placement):

Yes

The PhD in Microbial Biotechnology is a full-time, thematic PhD programme that runs for 48 months from initial registration. Students complete the equivalent of 90 credits in each 12 month period. The primary component of the PhD programme is original research leading to the completion of a research thesis. At the end of the programme, students are required to submit and defend a thesis on the candidate's research topic.

Students complete modules that provide training in the three main domains of:

1. technical skills and knowledge related to the discipline of microbial biotechnology;
2. complementary and transferrable skills; and
3. innovation skills.

The programme is inherently flexible to facilitate students who will take different routes to achieve the same final set of skills but each student must satisfy all the training requirements by the end of year 3 in order to progress to thesis submission.

This programme includes a period of research (minimum **6 months**) outside of Ireland in the laboratory of another academic institution. This

research training may be carried out in a single or several blocks of time in any year of the PhD.

This programme also includes a period of placement (between **3 and 6 months**) in the non-academic sector, typically industry. This placement module (MB7003) should ordinarily be completed in a single block of time and would typically be in the third year of the PhD.

## Registration and Supervision

All students on the PhD in Microbial Biotechnology programme will register in the College of Science, Engineering and Food Science (SEFS) and will be governed by policies of that College. These include formation of an individual thesis committee to supervise the student, in line with the policies of the SEFS Graduate School. The student's training and research progress will be evaluated annually by a Progress Review Panel established by the Microbial Biotechnology Programme Board, which reports to the SEFS Graduate School.

## Personal Career Development Plan

Each PhD candidate will, in consultation with their thesis committee, formulate a Personal Career Development Plan (PCDP) during their first progress review meeting to be completed within 3 months of registration. The PCDP will be refined and updated each year following a progress review. The PCDP defines the core components of the individual PhD programme for each student, namely:

- the modules to be taken to fulfil their credit requirements for the training component of their PhD
- the identity of the partner academic institution where the student will undertake a research period abroad
- the identity of the non-academic (industry) organisation where the student will undertake a placement.
- the research and training schedule for the next year and the remainder of the PhD
- the Research Plan

The PCDP is submitted for approval to the Microbial Biotechnology Programme Board. The candidate's academic and research progress will be reviewed at least annually by the Progress Review Panel, in accordance with the College of SEFS and UCC procedure for Progress Reviews. This review will include assessment of progress relative to the PCDP.

## Module Selection

The PhD in Microbial Biotechnology requires students to complete modules and courses that provide training to the value of **80** credits in the three main domains of:

1. skills and knowledge related to the discipline;
2. complementary and transferrable skills; and
3. innovation skills.

This training should be delivered through modules run by UCC. In some cases modules or courses external to UCC may be proposed as part of the PCDP and, if approved by the Programme Director, in line with College of SEFS and UCC procedures, will fulfil credit requirements. The programme is designed to be flexible to facilitate individualised training within the parameters of the programme. Each candidate's PCDP will include a list of the modules/courses planned for each year. There is no requirement that specific modules be taken in a particular year of the PhD, and the flexibility required by variable start dates within the academic year is recognised. Nonetheless, the student's thesis

committee and the Programme Director will advise the student on appropriate scheduling of training.

## **Programme Requirements**

For information about modules, module choice, options and credit weightings, please go to Programme Requirements (p. ).