

MRES (MASTER OF RESEARCH) IN BIOCHEMISTRY AND BIOSCIENCES

Overview

The MRes in Biochemistry and Biosciences is a full-time programme running over 12 months or part-time over 24 months from the date of first registration for the programme. Applications will be accepted for a start date in October or January for full-time entry and in October for part-time entry. The programme consists of

1. a major research thesis and
2. taught modules on generic and transferable skills, with an emphasis on scientific writing, oral presentations, and general research skills.

Part-time study for this programme is available over 24 months from the date of first registration in October for industry-based projects, with the permission of the Programme Director and Head of School of Biochemistry and Cell Biology.

Students undertake a total workload equivalent to 90 credits over the 12 month programme, the principal element of which is the completion of a major research thesis of approximately 25,000 words. In parallel, students must take and pass taught modules to the value of 20 credits.

See also Procedures for Submission and Examination of Research Masters Degrees (<https://reg.ucc.ie/curriculum/calendar/live/postgraduate/Masters/Procedures%20for%20Submission%20and%20Examination%20of%20Research%20Masters%20Degrees.pdf>).

Programme Requirements

For information about modules, module choice, options and credit weightings, please go to Programme Requirements (p. 1).

Programme Requirements

Students take **90** credits as follows - taught modules (**20** credits) and a Major Research Thesis (**70** credits):

Taught Modules

Elective Modules

Students take **20** credits from the following: ¹ **20**

BC6004	Scientific Research Planning and Proposals (5)
ML6005	Molecular Techniques in the Life Sciences (5)
PG6001	STEPS - Scientific Training for Enhanced Postgraduate Studies (5)
PG6009	Graduate Information Literacy (5)
PG6014	Scientific Outreach and Communication (5)
PG6015	An Introduction to Research Integrity, Ethics and Open Science (5)
ST6013	Statistics and Data Analysis for Postgraduate Research Students (10)

Research

Thesis (25,000 words) ²	70
Total Credits	90

¹ **Notes:** Students may elect to take other, relevant modules that are not listed above to fulfil the elective requirement with approval from the MRes coordinator, research supervisor and Head of School of Biochemistry and Cell Biology.

² Students undertake independent research towards completion of a research thesis to a student workload equivalent of **70** credits on a selected topic in Biochemistry and Biosciences.

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Programme Learning Outcomes

Programme Learning Outcomes for MRes (Master of Research) in Biochemistry and Biosciences (NFQ Level 9, Major Award)

On successful completion of this programme, students should be able to:

- Carry out an independent and original research project to address an emerging question in Biochemistry and Biosciences;
- Prepare and write a dissertation of their research project in a critical, logical and systematic manner, in keeping with the standards of postgraduate research;
- Display advanced theoretical knowledge and practical understanding within a research area of Biochemistry and Biosciences;
- Understand the basis and application of laboratory methods used in including state-of-the-art techniques and a knowledge of their limitations;
- Avail of relevant workshops or modules to increase scientific technical skills (e. g. biostatistics);
- Source, review, critically assess and evaluate relevant primary literature and summarize material for presentation to peers and for inclusion within the research dissertation;
- Design, write and defend a scientific research proposal based on their current research topic or a proposed topic;
- Evaluate their skill set and identify skills that should be acquired;
- Develop professional practice skills including team-work, negotiation, time-management, scientific writing and oral communication.