

MSC (MOLECULAR CELL BIOLOGY WITH BIOINNOVATION)

Overview

NFQ Level 9, Major Award

The MSc in Molecular Cell Biology with Bioinnovation is a full-time programme that runs for 12 months from the date of first registration for the programme.

Postgraduate Certificate in Molecular Cell Biology with Bioinnovation

Students passing modules to the value of at least 30 credits (including ML6004, ML6006, ML6002 and ML6005) and achieving an aggregate pass across all taught modules to the value of 50 credits may opt to exit the programme and be awarded a Postgraduate Certificate in Molecular Cell Biology with Bioinnovation (<https://ucc-ie-public.courseleaf.com/programmes/pcmcb/>).

Similarly, students who pass the taught modules and do not wish to complete the research dissertation may opt to be conferred with a Postgraduate Certificate in Molecular Cell Biology with Bioinnovation (<https://ucc-ie-public.courseleaf.com/programmes/pcmcb/>).

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 (**50** credits) and a research dissertation (**40** credits):

Taught Modules

Students take **50** credits as follows – all listed core modules (**45** credits) and elective modules to the value of **5** credits:

Core Modules

Code	Title	Credits
IS6306	Technology Business Planning	5
MG6705	Marketing for Entrepreneurs	5
ML6002	Biological and Clinical Perspectives of Human Disease	10
ML6003	Scientific Communication of Current Topics in Molecular Cell Biology	5
ML6004	Cell and Molecular Biology	10
ML6005	Molecular Techniques in the Life Sciences	5
ML6006	Human Molecular Genetics and Genetic Engineering Techniques	5

Elective Modules

Students take modules to the value of **5** credits from the following:

IS6307	Creativity and Opportunity Recognition (5)	5
LW6104	Principles of Intellectual Property Law (5)	5

Dissertation

Students take **40** credits as follows:

Core Modules

ML6001	Molecular Cell Biology Research Dissertation	40
Total Credits		90

Examinations

Full details and regulations governing Examinations for each programme will be contained in the *Marks and Standards Book* and for each module in the *Book of Modules*.

Programme Learning Outcomes

Programme Learning Outcomes for MSc (Molecular Cell Biology with Bioinnovation) (NFQ Level 9, Major Award)

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

- Display advanced theoretical knowledge and practical understanding in the area of Molecular Cell Biology;
- Describe the basis and application of laboratory methods used in Molecular Cell Biology Research including state-of-the-art techniques and their limitations;
- Develop and complete an independent research project addressing emerging questions in Molecular Cell Biology, and acquire transferable skills in experimental design and critical analysis, written and oral communication and project management;
- Investigate the current approaches used in patient diagnosis, and treatment options available for the management of different diseases including cancer, infectious and inflammatory diseases and neurodegeneration through a programme module taught predominantly by clinicians;
- Source, review, critically assess and evaluate relevant primary literature and summarize material for presentation to peers;
- Demonstrate knowledge of the structure of the Biotechnology Industry and best-practice Intellectual Property Management;
- Integrate science and business skills and develop a Marketing and Business plan for a fledgling Biotech company;
- Describe the financial processes of biotech innovation;
- Develop professional practice skills including team-work, negotiation, presentation, writing and oral communication etc.