Programme Specification (Postgraduate)

FOR ENTRY YEAR: 2025/26

Date created: 02/12/24 **Last amended:** 06/03/2025 **Version no.** 1

1. 100Programme title(s) and code(s)

MSc Cancer Molecular Biology and Therapeutics

PGCert Cancer Molecular Biology and Therapeutics*

Notes

* An award marked with an asterisk is only available as an exit award and is not available for students to register onto.

HECOS Code

HECOS Code	%
100948	100%

2. Awarding body or institution

University of Leicester

3. a) Mode of study

Full-time

b) Type of study

Campus-based

4. Registration periods

The normal period of registration for the MSc in Cancer Molecular Biology and Therapeutics

is 1 year.

The maximum period of registration for the MSc in Cancer Molecular Biology and Therapeutics

is 2 years

5. Typical entry requirements

Candidates with a first, upper second or lower second-class honours degree (or equivalent) in biological sciences or a related discipline will be considered.

Qualifications recognised as equivalent to a British University lower second-class degree (2.2) will also be considered, as will applicants who do not hold a bioscience degree but have significant and relevant industrial, professional, medical or veterinary experience. Such applicants will be considered on a case-by-case basis.

Students for whom English is not their first language are required to meet the minimum standard set by the University of Leicester (as specified in Senate Regulation 1: Regulations governing minimum entry qualifications and language requirements for taught programmes of study). This includes an IELTS minimum score of 6.5; a TOEFL iBT, minimum score of 90 or a Pearson Test of English (PTE) minimum score of 61.

6. Accreditation of Prior Learning

Accreditation of Prior Learning (APL) for exemption from modules is not accepted on this course

7. Programme aims

The programme aims to:

- Understand the theory, and apply a wide range, of laboratory techniques used in bioscience research
- Develop expertise with critical analysis of scientific reports and report writing
- Develop group working skills in a range of laboratory and class-based environments
- Develop independent research skills needed for a range of bioscience careers
- Develop skills for sourcing, reviewing and critically assessing the literature relevant to your scientific discipline
- Develop core knowledge and understanding of current literature in your relevant scientific discipline

8. Reference points used to inform the programme specification

- QAA Benchmarking Statement
- Framework for Higher Education Qualifications (FHEQ)
- UK Quality Code for Higher Education
- University Learning Strategy
- University Assessment Strategy [log-in required]
- University of Leicester Periodic Developmental Review Report
- External Examiners' reports (annual)
- United Nations Education for Sustainable Development Goals
- Student Destinations Data

9. Programme Outcomes

Unless otherwise stated, programme outcomes apply to all awards specified in 1. Programme title(s).

a) Discipline specific knowledge and competencies

i) Knowledge

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Demonstrate knowledge of the core research evidence and theories of the molecular and genetic basis of cancer	Lectures, tutorials, practical classes, demonstrations, directed reading and project supervision.	Through written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).
Students should be able to: Explain and critique the primary approaches to cancer therapy and monitoring of disease.	Lectures, tutorials, practical classes, demonstrations and project supervision.	By written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).

ii) Concepts

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Understand current concepts of the molecular mechanisms underlying the development of cancer.	Lectures, tutorials, practical classes, demonstrations, directed reading and project supervision.	By written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).
Understand current and emerging concepts underlying the treatment of cancer.	Lectures, tutorials, practical classes, demonstrations, directed reading and project supervision.	By written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).

iii) Techniques

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Apply a range of molecular and cell biology techniques to investigate biological problems.	Laboratory practical classes, project supervision, lectures and tutorials.	Through written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).
Students should be able to: Apply knowledge of laboratory safety procedures.	Laboratory practical classes, project supervision and lectures.	Written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).

iv) Critical analysis

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Critically appraise experimental data and critically analyse and review the literature.	Laboratory practical classes, project supervision, lectures and tutorials.	Written practical reports, project presentation, project dissertation and end of module examinations (written and computer-based).
Students should be able to: Critically discuss the principal mechanisms of action underlying current cancer therapy	Laboratory practical classes, project supervision, lectures, workshops and tutorials.	Written practical reports, project presentation, project dissertation and end of module examinations (written and computer-based).

v) Presentation

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Present experimental data and participate in scientific discussion.	Lectures, tutorials, project supervision, Lab meetings	By written practical reports, at lab meetings, project presentation and project dissertation.

vi) Appraisal of evidence

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Demonstrate competency in data searching, data analysis and data interpretation.	Lectures, workshops, tutorials	By written practical reports, project presentation, project dissertation and end of module examinations (written and computer-based).

b) Transferable skills

i) Research skills

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Solve biological problems, analyse and interpret data and perform statistical analysis of their experimental data	Laboratory practical classes, project supervision, lectures and tutorials.	Through written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).
Students should be able to: Apply a range of molecular and cell biology techniques to investigate biological problems.	Laboratory practical classes, project supervision, lectures and tutorials.	Through written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).

ii) Communication skills

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Write scientific reports competently, devoid of plagiarism, and deliver an effective oral presentation of their data.	Lectures, tutorials	Through written practical reports, project presentation, project dissertation and project laboratory performance.

iii) Data presentation

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Effectively use statistical tests, perform image analysis and use presentation and graphical software for data presentation.	Lectures, tutorials, laboratory practical classes and project supervision.	By written practical reports, project presentation, project dissertation and project laboratory performance.

iv) Information technology

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Demonstrate competency in the use of general computing, standard and specialised computing software.	Lectures, tutorials, project supervision and workshops.	By written practical reports, project presentation, project dissertation and project laboratory performance.

v) Problem solving

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Demonstrate the ability to solve both general biological and laboratory-based mathematical problems.	Lectures, tutorials, practical classes, project supervision and workshops.	Through written practical reports, project presentation, project dissertation and project laboratory performance.

vi) Working relationships

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Demonstrate the capacity to manage a project, time-management and organizational skills and be able to work effectively in a group/team.	Laboratory practical classes where student pairings are rotated to mix genders and nationalities, tutorial and project supervision.	During practical laboratory classes and assessment of project laboratory performance by project supervisor

vii) Managing learning

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Have confidence in their ability to develop new practical skills, manage information and develop specialization and interests.	Lectures, practical classes, Library and IT skills workshops and project supervision.	By written practical reports, project presentation, project dissertation and project laboratory performance

viii) Career management

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students should be able to: Produce a professional cv, write applications, give presentations and be confident in applying for positions	Workshops by the Career Development Services unit, careers advice by personal tutors and project supervisors.	Student feedback at SSC's and student destination surveys. Project presentations

10. Special features

Through teaching on this programme, you will progressively develop your laboratory and critical analysis skills. You will begin by learning basic laboratory techniques and gradually progress to in-

depth experimental approaches such as gene editing. In doing so, you will acquire the skills needed to become an independent laboratory researcher, irrespective of your initial level of laboratory experience.

The programme is designed to give you group working opportunities through the various taught laboratory, workshop and research project elements that are embedded in the programme. Importantly, the 6-month laboratory project will give you the opportunity to experience real research by working with a research group of your choice.

By enrolling of this programme, you will become part of our wider bioscience MSc cohort, providing opportunities to learn and socialize alongside your peers on other MSc programmes.

11. Indicators of programme quality

Student feedback

External Examiners reports

Annual development review

12. Criteria for award and classification

This programme follows the standard scheme of taught postgraduate award and classification set out in Senate Regulations – see the version of *Senate Regulation 6 governing taught postgraduate programmes of study* relevant to year of entry.

13. Progression points

As defined in Senate Regulations - refer to the version of *Senate Regulation 6 governing taught postgraduate programmes of study* relevant to year of entry

In cases where a student has failed to meet a requirement to progress he or she will be required to withdraw from the course and a recommendation will be made to the Board of Examiners for an intermediate/exit award where appropriate.

14. Rules relating to re-sits or re-submissions

As defined in Senate Regulations - refer to the version of *Senate Regulation 6 governing taught postgraduate programmes of study* relevant to year of entry.

15. External Examiners reports

The details of the External Examiner(s) for this programme and the most recent External Examiners' reports for this programme can be found at exampapers@Leicester [log-in required]

16. Additional features

n/a

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Appendix 1: Programme structure (programme regulations)

The University regularly reviews its programmes and modules to ensure that they reflect the current status of the discipline and offer the best learning experience to students. On occasion, it may be necessary to alter particular aspects of a course or module.

MSc Cancer Molecular Biology and Therapeutics

Credit breakdown

Status	Year long	Semester 1	Semester 2	Other delivery period
Core taught	n/a	60 credits	n/a	n/a
Optional	n/a	n/a	n/a	n/a
Dissertation/project	n/a	n/a	120 credits	n/a

180 credits in total

Level 7/Year 1 2025/26

Core modules

Delivery period	Code	Title	Credits
Semester 1	MB7008	Core Laboratory techniques	30 credits
Semester 1	MB7402	Molecular Methods and Experimental Design	15 credits
Semester 1	MB7403	Cancer Therapeutics	15 credits
Semester 2	MB7009	Biomolecular Masters Research Project	120 credits

Notes
N/A

Appendix 2: Module specifications

See taught postgraduate module specification database (Note - modules are organized by year of delivery).