Programme Specification (Postgraduate)

FOR ENTRY YEAR: 2026/27

Date created: 13/01/2025 **Last amended:** 13/03/2025 **Version no.** 1 **Date approved by EQED:**
Click or tap here to enter text.

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

MSc in Cancer Cell and Molecular Biology (Dual Award)*
PGCert Cancer Cell and Molecular Biology**

Notes

* As part of the Dual Postgraduate Programme in Cancer Cell & Molecular Biology MSc and Oncology MSc with Chongqing Medical University

** This award is only available as an exit award and is not available for students to register onto.

a) 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:

MSc in Cancer Cell and Molecular Biology
The normal period of registration is 3 years

The maximum period of registration is 4 years

To note: The total teaching time of the Dual Award Programme is 3 years, the MSc Cancer Cell & Molecular Biology is taught between January of year 1 and December of year 2.

5. Typical entry requirements

These are governed by CQMU and agreed by UoL as follows. For entry onto the dual award:

Applicants must have completed undergraduate studies in one of the following disciplines: Biological Sciences, Basic Medicine, Clinical Medicine, Public Health and Preventive Medicine, Pharmacy, Forensic Medicine, Medical Technology (excluding Dental Technology), Nursing, or Traditional Chinese Medicine. A bachelor's degree is required.

Applicants must have graduated from a full-time regular general higher education institution with a bachelor's degree; or have graduated from the university upgraded from junior college and have published at least one research article as the first author in a journal indexed by the Chinese Science Citation Database (CSCD).

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.

Students who are applying to the programme having completed the dual award BSc Clinical Sciences degree will not need to demonstrate English language proficiency.

Note: all assessments associated with the programme must be completed in English.

6. Accreditation of Prior Learning

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

7. Programme aims

At the end of this programme, students should be able to:

- Critically evaluate and apply advanced laboratory techniques in bioscience research, demonstrating an in-depth understanding of their theoretical underpinnings and practical limitations.
- Synthesise and critically analyse scientific data, demonstrating advanced proficiency in interpreting research findings and communicating them effectively through technical reports and academic writing
- Collaborate effectively in multidisciplinary teams, demonstrating leadership and problem-solving skills in laboratory and research settings
- Design and execute independent research projects, applying advanced methodologies and ethical considerations relevant to bioscience careers.
- Critically assess and synthesise primary literature, demonstrating the ability to engage with current research debates and identify gaps in scientific knowledge.
- Develop a systematic and advanced understanding of contemporary bioscience literature, evaluating its implications for future research and professional practice

8. Reference points used to inform the programme specification

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

UNIVERSITY OF LEICESTER

Programme Specification (Postgraduate) FOR ENTRY YEAR: 2026/27

Date created: 13/01/2025 **Last amended:** 13/03/2025 **Version no.** 1 **Date approved by EQED:** Click or tap here to enter text.

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 Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: Critically evaluate the core research evidence and theoretical frameworks underpinning the molecular and genetic basis of cancer, assessing their strengths, limitations, and relevance to current scientific debates.	Synchronous lectures, tutorials, practical classes, demonstrations, directed reading and project supervision.	Problem-solving activities, hands-on basic and advanced laboratory techniques incorporating demonstrations, online reading, multimedia instructional materials, literature searching and self-assessment knowledge tests.	Written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).
Students should be able to: Systematically apply and justify advanced molecular and cell biology techniques in cancer research, evaluating their efficacy in diagnostics, therapeutics, and translational medicine.	Synchronous lectures, tutorials, practical classes, demonstrations and project supervision.	Problem-solving activities, hands-on basic and advanced laboratory techniques incorporating demonstrations, online reading, multimedia instructional materials, literature searching and self-assessment knowledge tests.	Written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).

ii) Concepts

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type

Students should be able to: Apply skills of critical thinking, interpretation, analysis, evaluation, and explanation our current understanding of the molecular mechanisms underlying the development and treatment of cancer.	Synchronous lectures, tutorials, practical classes, demonstrations, directed reading and project supervision.	Problem-solving activities, hands-on basic and advanced laboratory techniques incorporating demonstrations, online reading, multimedia instructional materials, literature searching and self-assessment knowledge tests.	Written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).

iii) Techniques

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: Select, justify, and proficiently apply a range of advanced molecular and cell biology techniques to investigate complex biological problems, critically evaluating their appropriateness, limitations, and ethical implications in a research context	Laboratory practical classes, project supervision, lectures and tutorials.	Problem-solving activities, hands-on basic and advanced laboratory techniques incorporating demonstrations, online reading, multimedia instructional materials, literature searching and self-assessment knowledge tests.	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.	Demonstrations, online reading, multimedia instructional materials.	Written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).

iv) Critical Analysis

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type

Students should be able to: Critically appraise experimental data and critically analyse and review the literature.	Laboratory practical classes, project supervision, lectures and tutorials.	Problem-solving activities, hands-on basic and advanced laboratory techniques incorporating demonstrations, online reading, multimedia instructional materials, literature searching and self-assessment knowledge tests.	Written practical reports, project presentation, project dissertation and end of module examinations (written and computer-based).

v) Presentation

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: Present experimental data and participate in scientific discussion.	Lectures, tutorials, project supervision.	Staff-led classroom discussion, writing practical reports, oral presentations/	Written practical reports, project presentation and project dissertation.

vi) Appraisal of evidence

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: Demonstrate proficiency in data searching, data analysis and data interpretation.	Lectures, workshops, tutorials	Problem-solving activities incorporating demonstrations, online reading, multimedia instructional materials, literature searching and self-assessment knowledge tests.	Written practical reports, project presentation, project dissertation and end of module examinations (written and computer-based).

b) Transferable Skills

i) Research Skills

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: Solve complex biological problems, analyse and interpret data and perform statistical analysis of their experimental data	Laboratory practical classes, project supervision, lectures and tutorials.	Problem-solving activities, hands-on basic and advanced laboratory techniques incorporating demonstrations, online reading, multimedia instructional materials	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.	Problem-solving activities, hands-on basic and advanced laboratory techniques incorporating demonstrations, online reading, multimedia instructional materials, literature searching and self-assessment knowledge tests.	Written practical reports, project presentation, project dissertation and project laboratory performance, end of module examinations (written and computer-based).

ii) Communication skills

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: Write scientific reports competently, devoid of plagiarism, and deliver an effective oral presentation of their data.	Lectures, tutorials	Problem-solving activities incorporating demonstrations, online reading, multimedia instructional materials and self-assessment knowledge tests.	Written practical reports, project presentation, project dissertation and project laboratory performance.

iii) Data Presentation

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: Effectively use statistical tests, perform image analysis and use	Lectures, tutorials, laboratory practical classes and project supervision.	Problem-solving activities incorporating demonstrations, online reading, multimedia instructional	Written practical reports, project presentation, project dissertation and project laboratory performance.

presentation and graphical software for data presentation.		materials and self-assessment knowledge tests.	

iv) Information Technology

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: Demonstrate competency in the use of general computing, standard and specialised computing software.	Lectures, tutorials, project supervision and workshops.	Problem-solving activities incorporating demonstrations, online reading, multimedia instructional materials and self-assessment knowledge tests.	Written practical reports, project presentation, project dissertation and project laboratory performance.

v) Problem Solving

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: Demonstrate the ability to solve both general biological and laboratory-based mathematical problems.	Lectures, tutorials, project supervision and workshops.	Problem-solving activities incorporating demonstrations, online reading, multimedia instructional materials and self-assessment knowledge tests.	Written practical reports, project presentation, project dissertation and project laboratory performance.

vi) Working relationships

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: Demonstrate the capacity to manage a project, time-management and	Laboratory practical classes, tutorial and project supervision.	Group-based laboratory work	Written practical reports, project presentation, project dissertation and project laboratory performance.

organizational skills and be able to work effectively in a group/team.			

vii) Managing learning

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
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.	Laboratory practicals incorporating demonstrations, directed reading, and multimedia instructional materials.	Written practical reports, project presentation, project dissertation and project laboratory performance.

viii) Career Management

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: Produce a professional cv, write applications, give presentations and be confident in applying for positions for either employment or further study.	Workshops by the Career Development Services unit, careers advice by personal tutors and project supervisors.	Writing, interview skills, case studies.	Student feedback at SSC's and student destination surveys. Project presentations

10. Progression points

This programme follows the standard Scheme of Progression set out in Senate Regulations – see the version of *Senate Regulation 6 governing postgraduate programmes* relevant to the year of entry.

Failure to meet CQMU or UoL progression requirements

There may be circumstances under which students will meet the requirements of one institution but fail to meet the requirements of another.

Students who fail, after relevant re-sit opportunities, to meet the UoL progression requirements at any stage will not be able to continue on the dual award programme. Students in this position will not be eligible for transfer to another UoL programme.

In the unlikely event that a student fails to meet UoL requirements but meets CQMU requirements, that student may be allowed to move from the dual award programme and continue on another CQMU programme. Any transfer onto alternative programmes offered by CQMU will be at the discretion of CQMU.

In the unlikely event that a student meets UoL requirements but fails to meet CQMU requirements they will be offered the opportunity to transfer to UoL main campus to complete their studies. Where students are not able, for any reason, to transfer to UoL to complete their studies they will be eligible to be considered for a UoL exit award.

NB: progression decisions will be determined following completion of all sit and resit opportunities for taught modules MB7008, MB7003 and MB7004. As these assessments will be conducted at CQMU, students intending to undertake the MB7009 project module in the UK will only receive an invitation to travel to the UK if progression requirements have been met.

11. Criteria for award and classification

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

12. 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 on 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.

The Programme has been established such that all three years of tuition of the Dual Award Programme may be completed at CQMU. However, students will have the opportunity, and be encouraged to, complete 120 Credits of Cancer Cell & Molecular Biology MSc in Leicester after meeting the usual international requirements, visa requirements and payment of international fees.

12a. Research-inspired Education

Students on this programme will advance through the four quadrants of the University of Leicester Research-inspired Education Framework as follows:

RiE Quadrant	Narrative
Research-briefed Bringing staff research content into the curriculum.	The programme is **Research-briefed** by providing a challenging learning experience that is informed by the cutting-edge research of contributing academics in our internationally recognised research departments and Cancer Research Centre.
Research-based Framed enquiry for exploring existing knowledge.	The programme is **Research-based** as lectures and assessments will be based on real world research problems, methodologies and datasets, thereby ensuring that students are exposed to authentic research-based education throughout the programme.
Research-oriented Students critique published research content and process.	The programme is **Research-oriented** as students will be required to generate, analyse and critically appraise their own datasets, generated during dry laboratory practical classes and wet and dry research projects. They will also receive guidance and support with critical appraisal of published research.
Research-apprenticed Experiencing the research process and methods; building new knowledge.	The programme is **Research-apprenticed** as students will receive training and support with working in wet and dry laboratory environments, generating and analysing their own datasets and preparing written reports for submission. In addition, students will be embedded in a wider research team during the project module, gaining hands-on experience in an academic research environment. Students will also gain experience with summarising and presenting findings in oral format.

As part of studying at a research-intensive university, students on this programme have the following extra or co-curricular opportunities available to them to gain exposure to research culture:

Our regular departmental research lectures are available for all students registered on this programme. The lectures showcase the interdisciplinary nature of cutting-edge scientific research. During their research project, students will be embedded in an academic research laboratory where they will work under the supervision of their principal investigator to develop and undertake their own extended research project.

Teaching on this programme will be research-informed (it draws consciously on systematic inquiry into the teaching and learning process itself) in the following way:

All programme module convenors work with the School of Biological Sciences to ensure that staff deliver educational best practice, informed through insights gained from teaching conferences, talks from external educational speakers and shared best practice. The School supports all staff involved in teaching to gain an accredited Higher Education teaching qualification, in which they demonstrate their use of teaching theory to support their own practice and reflect on their current teaching and continuing professional development.

13. Indications of programme quality

Student feedback
External Examiners reports
Annual development review

14. External Examiner(s) 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].

UNIVERSITY OF LEICESTER

Programme Specification (Postgraduate) FOR ENTRY YEAR: 2026/27

Date created: 13/01/2025 **Last amended:** 13/03/2025 **Version no.** 1 **Date approved by EQED:** Click or tap here to enter text.

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 in Cancer Cell and Molecular Biology

Level 7/Year 1 Delivery Year 2026/27 Intake Month January Mode of Study Full Time Structure

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	n/a	60 credits	120 credits
Optional	n/a	n/a	n/a

180 credits in total

Core modules

Delivery period	Code	Title	Credits
Semester 1	MB7008	Core Laboratory techniques	30 credits
Semester 1	MB7003	Research Methods in Cancer Biology	15 credits
Semester 1	MB7004	Advanced Methods in Cancer Biology	15 credits
Semester 2	MB7009	Biomolecular Masters Research Project	120 credits

Programme Specification (Postgraduate)

FOR ENTRY YEAR: 2026/27

Date created: 13/01/2025 **Last amended:** 13/03/2025 **Version no.** 1 **Date approved by EQED:**
Click or tap here to enter text.

Appendix 2: Module specifications

See postgraduate module specification database (Note - modules are organized by year of delivery) [login-required]