UNIVERSITY OF LEICESTER

Programme Specification (Postgraduate)

Date amended: 7th March 2015
For 2018/19 entry

1. Programme Title(s):

MSc in Cancer Cell and Molecular Biology
Postgraduate Certificate in Cancer Cell and Molecular Biology (available as exit award only)

2. Awarding body or institution:

University of Leicester

3. a) Mode of study

Full time or part time

b) Type of study

Campus based

4. Registration periods:

The normal period of registration is 12 months full time (24 months part time)

The maximum period of registration is 24 months full time (48 months part time)

5. Typical entry requirements:

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

Graduates/non-graduates with several years' appropriate industrial/professional experience are also encouraged to apply and will be considered on a case by case basis.

Overseas students will be required to perform to the requisite standard in the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) set out in Senate Regulation 1.

6. Accreditation of Prior Learning:

APL is not accepted for exemptions from modules on this course

7. Programme aims:

The programme aims to:

- Respond to the national and international need for trained cancer researchers.
- Familiarise students with the cellular and molecular biology of cancer cells.
- Teach the theoretical and practical analytical skills currently used in cancer research.
- Provide a positive learning environment where students can actively participate in their academic development.
- Give students direct experience of research during a research placement project with either a collaborating industrial partner or equivalent research laboratory. (MSc only)
- Prepare graduates for employment as scientists in industry, academia or research institutes either by direct entry or following further study.
- Teach research skills to ensure that graduates are equipped to pursue a career in science (MSc only)

8. Reference points used to inform the programme specification:

University of Leicester Learning and Teaching Strategy

External Examiners' reports

First Destination Surveys

Student feedback on course

Framework for Higher Education Qualifications

Periodic Developmental Review, 2012

9. Programme Outcomes:

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
(a) Subject and Professional skills		
Knowledge		
Core knowledge of the molecular and genetic basis of cancer, molecular and cell biology techniques.	Lectures, specified reading, laboratory classes and tutorials.	Continuous assessment of laboratory reports, tutorial performance, essays and course examinations.
Concepts		
Molecular mechanisms underlying the development of cancer. Molecular and cell biology techniques.	Lectures, tutorials, journal clubs, laboratory classes.	Essays, laboratory reports and course examinations.
Techniques		
Practical demonstration of experimental methods. Competent use of standard and specialized equipment. Knowledge of safe procedures and safety assessment.	Laboratory classes, laboratory project supervision, practical demonstrations and lectures.	Laboratory reports, project progress and report. Course examinations.
Critical analysis		
Critical appraisal of results and critical review of literature.	Laboratory and project supervision, tutorials.	Course examinations, laboratory reports, project progress and report.
Presentation		
Presentation of scientific data, participation in scientific discussion.	Tutorials, laboratory classes and project supervision.	Laboratory presentations, group presentations and project presentations.
Appraisal of evidence		
Experimental method, project design.	Lectures, tutorials and project supervision.	Project reports.
(b) Transferable skills		
Research skills		
Literature review, experimental design, laboratory skills, data analysis, data interpretation and statistical analysis.	Tutorials, problem solving, lectures and project supervision.	Tutorial performance, project report.
Communication skills		
Report writing, scientific communication.	Tutorials, laboratory classes and presentation skills.	Tutorial performance, laboratory reports, project report and oral presentation of project.

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Data presentation		
IT, images and image analysis, analytical and graphical methods, statistics.	Tutorials, laboratory classes and project supervision.	Practical reports and project reports.
Information technology		
Data handling, information retrieval, preparation of slides for presentations and posters, word processing and bioinformatics.	Workshops, tutorials and practical classes.	Practical reports, essay and project presentation .
Problem solving		
Formulation of hypothesis, testing hypothesis using appropriate methods and analysing results.	Tutorials, problem solving, lectures and project supervision.	Tutorial performance, project report.
Working relationships		
Project management, organizational skills, time management, working in groups/teams	Group practical classes, group solving problems, tutorials, project supervision.	Tutorial performance and project report.
Managing learning		
Study skills, information management, developing specialization and interests, project management.	Tutorials, Library and IT skills, study skills support and project supervision.	Interviews, student feedback, tutorial performance, IT assessment and coursework and project assessment
Career management		
Producing a professional cv, writing applications and knowledge of career pathways.	Workshops and study skills support.	Student feedback and student destination surveys.

10. Special features:

Six-month laboratory research project.

11. Indications of programme quality:

"The structure of the programme is well-balanced between intensive practical courses covering relevant areas of cancer molecular and cellular biology and an in-depth lecture series on all aspects of cancer, from causes to cures. The course culminates in a 6-month laboratorty project in a research laboratory where the student is exposed to original primary laboratory-based research and they have experience of ownership of a novel project. The student writes a 12,000 word dissertation which tests the knowledge and understanding of the subject area, data analysis, critical evaluation and communication skills."
External Examiner's comments, August 2014.

12. Scheme of Assessment

As defined in Senate Regulation 6: Regulations governing Taught Postgraduate Programmes of Study.

13. Progression points

As defined in Senate Regulation 6: Regulations governing Taught Postgraduate Programmes of Study

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 award where appropriate.

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

As defined in Senate Regulation 6: Regulations governing Taught Postgraduate Programmes of Study.

15. Additional information [e.g. timetable for admissions]

The course commences in September each year. Overseas students are encouraged to submit their applications as early as possible before the end of July.

16. External Examiners

The details of the External Examiner(s) for this programme and the most recent External Examiners' reports can be found here.

Appendix 1: Programme structure (programme regulations)

The overall structure of the MSc is as follows:

Taught modules (3 months duration)……60 credits
Research project (9 months duration)……..120 credits

Module	Module Title	Core / Optional	Credit Rating
MB7001	Introduction to molecular techniques	Core	15
MB7002	Research methods in cell biology	Core	15
MB7003	Research methods in cancer biology	Core	15
MB7004	Advanced topics in cancer biology comprising a programme of lectures and tutorials	Core	15
MB7006	Masters research project	Core	120

Appendix 2: Module Specifications

See module specification database http://www.le.ac.uk/sas/courses/documentation.