Programme Specification (Postgraduate)

FOR ENTRY YEAR: 2025/26

Date created: 16/4/2022 **Last amended:** 20/01/2025 **Version no.** 1 **Date approved by EQED:**
Click or tap here to enter text.

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

MSc in Immunity, Infection and Chronic Disease

PGCert in Immunity, Infection and Chronic Disease *

Notes

* An award marked with an asterisk 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 Immunity, Infection and Chronic Disease

The normal period of registration is 1 year

The maximum period of registration 2 years

5. Typical entry requirements

Candidates with a first, upper second or lower second class honours degree (or equivalent) in the 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

At the end of this programme, students should be able 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
- Education 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

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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: Demonstrate knowledge of the core research evidence and theories underpinning the immunological basis for infection and chronic diseases whose origins may be related to infectious organisms, physiological dysfunction or both.	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: Apply the principles of immunology to infection and chronic disease to evidence the research and the strategies used for their treatments and prevention.	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 immunological basis for infection and chronic diseases whose origins may be related to infectious organisms, physiological dysfunction or both.	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: 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).
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 competency 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 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 presentation and graphical software for data presentation.	Lectures, tutorials, laboratory practical classes and project supervision.	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.

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 organizational skills and be able to work effectively in a group/team.	Laboratory practical classes, tutorial and project supervision.	Group-based laboratory work	Written practical reports, project presentation, project dissertation and project laboratory performance.

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.

In cases where a student has failed to meet a requirement to progress he or she will be required to withdraw from the course.

The following module on this programme must be passed at the first attempt:

- MB7009 - Biomolecular Masters Research Project

The Board of Examiners may, at its discretion, permit students to resubmit one or more assessed coursework elements of this module if doing so would enable them to achieve an overall pass mark for the module by improving their mark in individual coursework components. However, there are no resit opportunities permitted for missed non-mitigated practical elements.

a) Course transfers

n/a

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 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.

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.	**Research-briefed:** In the semester 1 2x 15-credit module(s), students in the Immunity, Infection and Chronic Disease [IICD] MSc course will receive lectures from research-active specialists across a range of disciplines. These disciplines are drawn from the clinical, translational and foundational research of the faculty within the Department of Respiratory Sciences.
Research-based Framed enquiry for exploring existing knowledge.	**Research-based:** In the semester 1 15-credit workshop-based module, IICD students will be provided structured, self-paced learning based on a curated set of videos, software and other information to provide a framework for their own inquiry into the tools and techniques necessary for the in-depth understanding of research results, including flow cytometry, fluorescent and confocal microscopy and other advanced methods.
Research-oriented Students critique published research content and process.	**Research-oriented:** In both semester 1 and 2, IICD students will be trained to critique published literature as well as to evaluate research seminars in a structured and guided process. The intent of this training and skills development is to aid the student in the production of their own dissertation and to be better able to dissect and communicate published research.
Research-apprenticed Experiencing the research process and methods; building new knowledge.	**Research-apprenticed:** In semester 2, IICD students will experience life sciences research first-hand in their extended dissertation six-month research project. These projects embed IICD students in laboratories where world-class cutting-edge research is performed in order to provide the student with a transformative learning experience.

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:

Because the IICD students are affiliated with the Department of Respiratory Sciences, an academic department that supports delivery of research, they will be participating in lab meetings, in progress updates to their supervisors and will be expected to attend all of the departmental research culture events, including PGR seminars, invited lectures and other research focused events.

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:

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.

The teaching ethos of the IICD program is a deliberate extension of the research interests of the academic department in which it is based. Therefore, the teaching focus of the IICD course mirrors the research portfolio of the members of the department and spans disciples from clinical to fundamental.

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].

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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 in Infection and Immunity

Level 7/Year 1 Delivery Year 2025/26 Intake Month September 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 credits in total

Core modules

Delivery period	Code	Title	Credits
Semester 1	MB7008	Core Laboratory techniques	30 credits
Semester 1	MB7309	Immunity, Infection & Chronic Disease: Theory	15 credits
Semester 1	MB7310	Immunity, Infection & Chronic Disease: Scientific Communication and Analytic Techniques	15 credits
Semester 2	MB7009	Biomolecular Masters Research Project	120 credits

This is an indicative list of option modules and not definitive of what will be available. Option module choice is also subject to availability, timetabling, student number restrictions and, where appropriate, students having taken appropriate pre-requisite modules.

Appendix 2: Module specifications

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