

Programme Specification (Postgraduate)

Date created: 16/4/2022 Last amended: 30/08/2023 Version no. 1 Date approved by EQED:

FOR ENTRY YEAR: 2023/24

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Programme title(s) and code(s):

MSc in Infection and Immunity

PGCert in Infection and Immunity *

Notes

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 & 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.

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

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

v) Presentation

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

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 selfassessment 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	Lectures, tutorials, laboratory practical classes and project supervision.	Problem-solving activities incorporating demonstrations, online reading, multimedia instructional materials and self-assessment	Written practical reports, project presentation, project dissertation and project laboratory performance.
for data presentation.		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 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
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Students should be able to:	Lectures, practical classes, Library and	Laboratory practicals incorporating	Written practical reports, project
Have confidence in their ability to develop new practical skills, manage information and develop specialization and interests.	IT skills workshops and project supervision.	demonstrations, directed reading, and multimedia instructional materials.	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



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10. Progression points

This programme follows the standard Scheme of Progression set out in <u>Senate Regulations</u> – 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.

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 <u>Senate Regulations</u> – see the version of <u>Senate Regulation governing postgraduate programmes</u> 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 indepth 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.

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 2023/24 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	30 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 <u>module specification database</u> (Note - modules are organized by year of delivery) [login-required]