



PROGRAMME SPECIFICATION

1. Overview

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| Academic Year (student cohorts covered by specification) | 2024-25 |
| Programme Title | Medical Microbiology |
| Programme Director | Richard Stabler |
| Awarding Body | University of London |
| Teaching Institution | London School of Hygiene & Tropical Medicine |
| Faculty | Infectious and Tropical Diseases |
| Length of Programme (months) | MSc – Full time = 12 months, Split Study = 24 months |
| Entry Routes | MSc |
| Exit Routes | MSc/PGDip/PGCert |
| Award Titles | MSc Medical Microbiology (180 credits) Exit awards: PGDip Medical Microbiology (120 credits) PGCert Bacteriology & Virology (60 credits) |
| Accreditation by Professional Statutory and Regulatory Body | Not accredited by any other body. |
| Relevant PGT QAA Benchmark Statement and/or other external/internal reference points | No relevant PGT QAA benchmark for this MSc Programme. |
| Level of programme within the Framework for Higher Education | Masters (MSc) Level 7 |

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| Qualifications (FHEQ) | |
| Total Credits | CATS: 180 ECTS: 90 |
| HECoS Code(s) | 100345:100265:100948 (1:1:1) |
| Mode of Delivery | This programme is based at LSHTM in London and delivered by predominantly face-to-face teaching modes. |
| Mode and Period of Study | Full time (12 months) or part time/split time (max 24 months) |
| Cohort Entry Points | Annually in September |
| Language of Study | English |
| Re-sit Policy | https://www.lshtm.ac.uk/sites/default/files/academic-manual-chapter-08a.pdf |
| Extenuating Circumstances Policy | https://www.lshtm.ac.uk/sites/default/files/academic-manual-chapter-07.pdf |
| Programme Description | This programme provides comprehensive knowledge and practical training in the spread of microorganisms (predominantly bacterial and viral pathogens), disease causation and diagnosis and treatment of pathogens significant to public health. The increasing incidence of microbial infections worldwide is being compounded by the rapid evolution of drug-resistant variants and opportunistic infections by other organisms. The programme content reflects the increasing importance of genomics and molecular techniques in both diagnostics and the study of pathogenesis. |
| Date of Introduction of Programme (month/year) | 1975-76 |
| Date of production / revision of this programme specification (month/year) | July 2023 |

2. Programme Aims & Learning Outcomes

Educational aims of the programme

The aim of the programme – consistent with the LSHTM’s mission to improve health worldwide – is to provide a comprehensive theoretical knowledge of medical microbiology including the spread of microorganisms, disease causation, diagnosis and/or treatment of pathogens of major significance to public health and advanced practical training in this diverse field. The increasing incidence of microbial infections worldwide is being compounded by the rapid evolution of drug-resistant variants and opportunistic infections by other organisms. The programme places particular emphasis on practical aspects of the subjects most relevant to current clinical laboratory practice and research.

Programme Learning Outcomes

By the end of the programme, students will be expected to achieve the following learning outcomes – drawing on material taught across different elements and assessed in a variety of ways.

- (i) demonstrate advanced knowledge and understanding of the nature of pathogenic microorganisms (predominantly viruses and bacteria) and basic criteria used in the classification/taxonomy of these microorganisms,
- (ii) explain the modes of transmission of pathogenic microorganisms’
- (iii) demonstrate knowledge and understanding of the mechanisms of microbial pathogenesis and the outcomes of infections, including chronic microbial infections,
- (iv) distinguish between and critically assess the classical and modern approaches to the development of therapeutic agents and vaccines for the prevention of human microbial diseases,
- (v) demonstrate knowledge of the laboratory diagnosis of microbial diseases and practical skills, including the isolation and characterisation of specific microbes in clinical specimens,
- (vi) carry out a range of advanced skills and laboratory techniques, for example the purification of isolated microbial pathogens and analyses of their proteins and nucleic acids for downstream applications such as gene cloning and sequencing studies and
- (vii) demonstrate research skills, including designing experiments, analysing results and troubleshooting and critically assessing the scientific literature.

Teaching and Learning Strategy

The programme is taught using a variety of teaching methods including: lectures, small group seminars, practical and groupwork with peers. All elements of the programme have specific learning objectives, with content designed to help students achieve these outcomes. Students are expected to learn through both directed and self-directed study.

Assessment Strategy

The programme is assessed through MCQ and practical examinations in Term 1, written assessments before the start of Term 2, individual module assessments (which may include essays, other written coursework, short written exams, practical exams, groupwork, presentations or other methods) and a project report. Such tasks are designed to assess, via the most appropriate method, whether learning objectives have been met.

3. Programme Structure and features, modules, credit assignment and award requirements:

| Full-time Masters | Term 1 | Term 2/3 | Term 3 | Total Credits |
|---------------------|--------|----------|--------|---------------|
| Compulsory Modules | 2 | | | 60 |
| Recommended Modules | | 5 | | 75 |
| Project | | | 1 | 45 |

Module information is correct at the time of publication, but minor amendments may be made subject to approval as detailed in [Chapter 3 of the LSHTM Academic Manual](#). Optional (i.e. recommended non-compulsory) modules listed are indicative and may change from year to year.

<https://www.lshtm.ac.uk/study/courses/changes-courses>

| Term | Slot | Module Code | Module Title | Module Type (compulsory or recommended) | Credits (CATS) |
|------|------|-------------|---------------------------------------|---|----------------|
| 1 | AB1 | 3196 | Analysis & Design of Research Studies | Compulsory | 10 |
| 1 | AB1 | 3121 | Bacteriology & Virology | Compulsory | 50 |
| 1 | AB1 | 3333 | Molecular Biology | Recommended (Supplementary) | 0 |

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| 2 | C1 | 3187 | Clinical Virology | Recommended | 15 |
| 2 | C1 | 3131 | Molecular Biology & Recombinant DNA Techniques | Recommended | 15 |
| 2 | C2 | 3157 | Clinical Bacteriology 1 | Recommended | 15 |
| 2 | C2 | 3140 | Molecular Virology | Recommended | 15 |
| 2 | D1 | 3158 | Advanced Training in Molecular Biology | Recommended | 15 |
| 2 | D1 | 3146 | Basic Parasitology | Recommended | 15 |
| 2 | D2 | 3165 | Clinical Bacteriology 2 | Recommended | 15 |
| 2 | D2 | 3260 | Molecular and Cell Biology of Infectious Diseases | Recommended | 15 |
| 3 | E | 3169 | Novel Drug Discovery & Antimicrobial Resistance | Recommended | 15 |
| 3 | E | 3130 | Mycology | Recommended | 15 |
| 3 | E | 3460 | Pathogen Genomics | Recommended | 15 |

Contact Time

Student contact time refers to the tutor-mediated time allocated to teaching, provision of guidance and feedback to students. This time includes activities that take place in face-to-face contexts such as on-campus lectures, seminars, demonstrations, tutorials, supervised laboratory workshops, practical classes, project supervision and external fieldwork or visits, as well as where tutors are available for one-to-one discussions and interaction by email. Module contact time will be defined in the individual module specifications and provided to students at the start of their programme.

This definition is based on the one provided by the [Quality Assurance Agency for Higher Education \(QAA\) Explaining contact hours \(2011\)](#). Student contact time, together with time allocated for independent study and assessment, determines the total student study hours for a module or programme. Although there are separate hours allocated for each of these activities, they should always be clearly linked together to support effective learning.

The London School of Hygiene and Tropical Medicine (LSHTM) defines high quality contact time as structured, focused, purposeful and interactive.

4: Entry Requirements

Please refer to the programme's entry requirements [here](#).