

Programme Specification (PG)

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| Awarding body / institution: | Queen Mary University of London |
| Teaching institution: | Queen Mary University of London |
| Name of final award and title: | MSc Biomedical Science (Medical microbiology) |
| Name of interim award(s): | PGDip/PGCert |
| Duration of study / period of registration: | 1 year full time/2 years part time |
| Queen Mary programme code(s): | PSBMB PMSF-QMICMS1/A3W7 PMSP-QMICMS1 /A3WW |
| QAA Benchmark Group: | not applicable |
| FHEQ Level of Award: | Level 7 |
| Programme accredited by: | Institute of Biomedical Science (IBMS) |
| Date Programme Specification approved: | 14.11.22 (TLC) |
| Responsible School / Institute: | Blizard Institute |

Schools / Institutes which will also be involved in teaching part of the programme:

Collaborative institution(s) / organisation(s) involved in delivering the programme:

Programme outline

The programme will provide the essential underpinning academic learning for the continuing professional development of Biomedical Scientists.
Teaching will be delivered on campus to full time students. Part time students can attend by day release on campus or mixed mode live streaming, supported by electronic learning.
The programme includes input by specialism experts in NHS service roles, is closely linked by partnership working with the work-place and delivers research-informed teaching from within a research-rich environment.
Throughout the course interprofessional learning is strongly encouraged as the students study with other healthcare science professionals and clinicians who are following the MSc in Clinical microbiology or the MSc Clinical Science(Infection Science)

Aims of the programme

The overall aim of the programme is to produce graduates with the knowledge and intellectual skills required to provide, develop and advance specialist scientific services within healthcare systems.

Queen Mary will award Master's degrees to students who have demonstrated:

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- a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study or area of professional practice
- a comprehensive understanding of techniques applicable to their own research or advanced scholarship
- originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in medical microbiology
- conceptual understanding that enables the student:
 - to evaluate critically current research and advanced scholarship in medical microbiology
 - to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses.

Typically, holders of the qualification will be able to:

- deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences
- demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level
- continue to advance their knowledge and understanding, and to develop new skills to a high level.

And holders will have:

- the qualities and transferable skills necessary for employment requiring:
 - the exercise of initiative and personal responsibility
 - decision-making in complex and unpredictable situations
 - the independent learning ability required for continuing professional development.
 - proficiency in Clinical Practice and Inter-professional Skills demonstrated by
 - the ability to work with all sectors within the Healthcare Environment
 - the ability to manage the work place and interact with colleagues
 - being able to lead and demonstrate laboratory management skills
 - being competent in diagnostic aspects of the Biomedical Scientist Role

What will you be expected to achieve?

A broad knowledge of medical microbiology with a focus on laboratory medicine and laboratory management.

Academic Content:

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| A 1 | Demonstrate a comprehensive knowledge and critique of medical microbiology and its applications. |
| A 2 | Critique the principles of research and audit within NHS and roles of biomedical scientists in research for patient benefit and innovation |
| A 3 | Demonstrate a systematic understanding the principles of laboratory management and laboratory health and safety legislation. |

Disciplinary Skills - able to:

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| B 1 | Interpret diagnostic tests and critically evaluate data from diagnostic methods including quality assurance data. |
| B 2 | Demonstrate an understanding and appraisal of the role of the manager within the laboratory setting and understand the importance of health and safety legislation |

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| B 3 | Evaluate and critique the methodologies in medical microbiology |
| B 4 | Interpret and evaluate relevant research publications |

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| Attributes: | |
| C 1 | Adapt current understanding to evaluate complex issues systematically and creatively for communicating findings to specialists and other professional groups. |
| C 2 | Identify information needs appropriate to diagnostic and epidemiological studies in the health service and in microbiology research |
| C 3 | Demonstrate an understanding and appraisal of the principles and practices of independent learning as required for continuing professional development |

How will you learn?

Formal teaching comprises lectures, workshops and problem based learning. The lecturers are specialists in their field and are invited from many institutions in the UK. Full time students are taught on campus. To enable part time students to access the formal teaching these sessions are delivered using mixed mode education methods. Part time students can attend on campus or join the sessions via live streaming.

The practical classes are an important component of the course and are designed to give you the maximum hands-on experience, particularly in clinical microbiology. You are encouraged to relate current practices in their sponsoring institution to their studies, and to discuss and critically evaluate these techniques with their colleagues (including clinicians and Biomedical Scientists) in the light of their formal teaching. The practical classes are taught in the purpose-built teaching laboratory, which is well equipped with all necessary materials and is based on a routine clinical microbiology laboratory.

In addition to the formal face to face teaching, students use on line learning materials in the university's electronic learning environment QMplus. These materials include discussion threads, chat rooms, lecture notes (PDF documents) and quizzes.

Self-directed learning, by reading and reviewing literature to supplement the lectures, is essential and you are encouraged to use the library facilities of the department and the University. All students have access to the library and computing facilities of the University.

To enable the full-time students to participate fully in discussions about laboratory techniques and clinical cases with their part-time colleagues who are attending by day-release, additional tuition is provided during the attachment to the Blizzard Institute. The additional tuition provides further hands-on practical experience using material designed to reflect the clinical samples and laboratory procedures in a routine hospital laboratory. The students are encouraged to complete the practical work as individuals to gain maximum experience, but discussion within the group and with the tutor is encouraged. Additional theoretical tutorials are also used throughout the year to broaden the students' experience of clinical microbiology. These tutorials include case presentations to and by the students, workshops, discussion sessions, question-and-answer sessions, and oral presentations by the students. Full-time students receive additional assignments to be completed throughout the year to allow them to monitor their own progress. Full-time students are also encouraged to attend the regular research meetings within the Centre.

How will you be assessed?

The assessment strategies are designed to allow all students to be assessed in a variety of styles throughout the course from traditional written and practical examinations, essays, and short answer questions to scientific presentations and case presentations. Professional reflective learning is encouraged within learning and assessment strategies.

How is the programme structured?

Please specify the structure of the programme diets for all variants of the programme (e.g. full-time, part-time - if applicable). The description should be sufficiently detailed to fully define the structure of the diet.

The course comprises 9 modules. All taught modules are compulsory and are taught at level 7. The project module is a core module.

Fulltime students complete the course in one year take an additional non credit bearing module: ICM7040 Formative studies. Students on the fulltime course undertake a project with a research team within the Blizard Institute commencing in semester 2 and completed by the end of July.

Part time students take 3 modules in the first year:
 Molecular biology, immunology and pathogenesis
 Introduction to clinical bacteriology and virology
 Introduction to clinical parasitology and mycology

and 5 taught modules in the second year.:
 Antimicrobials in the laboratory and in clinical practice
 Professional and research skills
 Laboratory management
 Prevention and control of communicable disease in the hospital and community
 Clinical microbiology and infection

The organisation, timing and delivery of the research project will be discussed individually with the students and their NHS trainers at the earliest opportunity during the first year in order to maximise flexibility for the students workplace where the project is being undertaken, whilst considering constraints for assessment deadlines. The project usually commences after the Summer exams in year .

Academic Year of Study FT - Year 1

| Module Title | Module Code | Credits | Level | Module Selection Status | Academic Year of Study | Semester |
|---|-------------|---------|-------|-------------------------|------------------------|-----------------|
| Molecular biology, immunology and pathogenesis | ICM7191 | 15 | 7 | Compulsory | 1 | Semester 1 |
| Introduction to clinical bacteriology and virology | ICM7222 | 15 | 7 | Compulsory | 1 | Semesters 1 & 2 |
| Introduction to clinical parasitology and mycology | ICM7223 | 15 | 7 | Compulsory | 1 | Semester 2 |
| Antimicrobials in the laboratory and in clinical practice | ICM7042 | 15 | 7 | Compulsory | 1 | Semester 1 |
| Professional and research skills | ICM7091 | 15 | 7 | Compulsory | 1 | Semesters 1 & 2 |

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| Module Title | Module Code | Credits | Level | Module Selection Status | Academic Year of Study | Semester |
|--|-------------|---------|-------|-------------------------|------------------------|-----------------|
| Laboratory management | ICM7098 | 15 | 7 | Compulsory | 1 | Semester 1 |
| Prevention and control of communicable disease in the hospital and community | ICM7046 | 15 | 7 | Compulsory | 1 | Semester 1 or 2 |
| Clinical microbiology and infection | ICM7094 | 15 | 7 | Compulsory | 1 | Semester 2 |
| Project and dissertation | ICM7099 | 60 | 7 | Core | 1 | Semesters 2 & 3 |
| Formative studies | ICM7040 | 0 | 7 | Study only | 1 | Semesters 1 & 2 |

Academic Year of Study PT - Year 1

| Module Title | Module Code | Credits | Level | Module Selection Status | Academic Year of Study | Semester |
|--|-------------|---------|-------|-------------------------|------------------------|-----------------|
| Molecular biology, immunology and pathogenesis | ICM7191 | 15 | 7 | Compulsory | 1 | Semester 1 |
| Introduction to clinical bacteriology and virology | ICM7222 | 15 | 7 | Compulsory | 1 | Semesters 1 & 2 |
| Introduction to clinical parasitology and mycology | ICM7223 | 15 | 7 | Compulsory | 1 | Semester 2 |

Academic Year of Study PT - Year 2

| Module Title | Module Code | Credits | Level | Module Selection Status | Academic Year of Study | Semester |
|--|-------------|---------|-------|-------------------------|------------------------|-----------------|
| Antimicrobials in the laboratory and in clinical practice | ICM7042 | 15 | 7 | Compulsory | 2 | Semester 1 |
| Professional and research skills | ICM7091 | 15 | 7 | Compulsory | 2 | Semesters 1 & 2 |
| Laboratory management | ICM7098 | 15 | 7 | Compulsory | 2 | Semester 1 |
| Prevention and control of communicable disease in the hospital and community | ICM7046 | 15 | 7 | Compulsory | 2 | Semester 2 |

| Module Title | Module Code | Credits | Level | Module Selection Status | Academic Year of Study | Semester |
|-------------------------------------|-------------|---------|-------|-------------------------|------------------------|---------------|
| Clinical microbiology and infection | ICM7094 | 15 | 7 | Compulsory | 2 | Semester 2 |
| Project and dissertation | ICM7099 | 60 | 7 | Core | 2 | Semesters 1-3 |

What are the entry requirements?

Applicants for part time study must be employed by the NHS, UKHSA or similar employer in a diagnostic or reference laboratory. Applications for part time study must include a letter from the employer confirming they support the application and will be able to provide and supervise a MSc project.

Applicants must have 1st or 2:1 in either an undergraduate honours degree or an integrated master's degree biomedical science degree with modules including microbiology or infection science. Alternative qualifications and relevant work based experience will be considered on an individual basis.

English language requirements: If you obtained your degree in an English speaking country or if it was taught in English, and you studied within the last five years, you might not need an English language qualification.

We accept IELTS Academic: 7.0 overall including 6.5 in Writing, and 5.5 in Reading, Listening and Speaking or TOEFL: 100 overall including 24 in Writing, 18 in Reading, 17 in Listening and 20 in Speaking.

How will the quality of the programme be managed and enhanced? How do we listen to and act on your feedback?

The Staff-Student Liaison Committee provides a formal means of communication and discussion between schools/institutes and its students. The committee consists of student representatives from each year in the school/institute together with appropriate representation from staff within the school/institute. It is designed to respond to the needs of students, as well as act as a forum for discussing programme and module developments. Staff-Student Liaison Committees meet regularly throughout the year.

Each school/institute operates a Learning and Teaching Committee, or equivalent, which advises the School/Institute Director of Taught Programmes on all matters relating to the delivery of taught programmes at school level including monitoring the application of relevant QM policies and reviewing all proposals for module and programme approval and amendment before submission to Taught Programmes Board. Student views are incorporated in the committee's work in a number of ways, such as through student membership, or consideration of student surveys.

All schools/institutes operate an Annual Programme Review of their taught undergraduate and postgraduate provision. APR is a continuous process of reflection and action planning which is owned by those responsible for programme delivery; the main document of reference for this process is the Taught Programmes Action Plan (TPAP) which is the summary of the school/institute's work throughout the year to monitor academic standards and to improve the student experience. Students' views are considered in this process through analysis of the NSS and module evaluations.

What academic support is available?

Each student is assigned a QM adviser who is able to give general academic guidance and signpost students to appropriate university support services such as disability and dyslexia services, advice and counselling, academic skills.

Programme-specific rules and facts

Applicants for part time study must be employed by the NHS, UKHSA or similar employer in a diagnostic or reference laboratory.

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The employer provides and supervises the MSc project.

How inclusive is the programme for all students, including those with disabilities?

The use of mixed mode teaching enables those part time students unable to commute to London on a once a week basis to participate fully in the learning alongside those who are on campus.
Where possible lectures are also recorded and made available for revision purposes.
Lecture notes are available before the session
reading lists are reviewed annually and include materials which are available electronically and reading lists are collated in the library online reading list system.
Material used in QMplus is checked for accessibility and modifications made wherever possible to increase accessibility.

Links with employers, placement opportunities and transferable skills

The course is accredited by the Institute of Biomedical Science (IBMS). A student obtaining a degree accredited by the IBMS may use the qualification towards the higher specialist portfolio and chartered scientist status. This is not the same as accreditation for HCPC registration

For students who do not wish to pursue a career as a biomedical scientist they will be equipped with a board range of laboratory skills and knowledge of medical microbiology which may be utilised in the pharmaceutical industry, research environments, environmental health services and other health science careers as well as postgraduate medicine courses.

Programme Specification Approval

Person completing Programme Specification:

Michele Branscombe

Person responsible for management of programme:

Michele Branscombe

Date Programme Specification produced / amended by School / Institute Education Committee:

05/02/2024 (for Sept 2024)

Date Programme Specification approved by Taught Programmes Board:

14.11.22 (TLC)