

Programme Specification (PG)

Awarding body / institution:	Queen Mary University of London
Teaching institution:	Queen Mary University of London
Name of final award and programme title:	MSc Biomedical Science (Medical Microbiology)
Name of interim award(s):	PGDip/PGCert
Duration of study / period of registration:	1 year full time or 2 year part time
Queen Mary programme code(s):	A3W7 and A3WW
QAA Benchmark Group:	
FHEQ Level of Award:	Level 7
Programme accredited by:	Institute of Biomedical Science (IBMS)
Date Programme Specification approved:	
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 using both inperson and asynchronous content.
The programme includes input by specialism experts in NHS service roles, in addition to closely linked partnership working with the work-place for part time students 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 in medical microbiology 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:

A 1	Demonstrate a comprehensive knowledge of, and be able to critique, medical microbiology and laboratory management.
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:

B 1	Interpret diagnostic tests and critically evaluate data from diagnostic methods
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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
B 3	Evaluate and critique new methodologies in medical microbiology
B 4	Interpret and evaluate relevant research publications

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, problem based learning, practicals and demonstrations. The lecturers are specialists in their field and are invited from many institutions in the UK. This material will be delivered using both inperson and asynchronous content.

The practical classes are an important component of the course and are designed to give you the maximum hands-on experience, particularly in medical microbiology. You are encouraged to relate current practices in your sponsoring institution to your studies, and to discuss and critically evaluate these techniques with your colleagues (including clinicians and clinical scientists). 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.

Asynchronous learning uses on line learning materials in the university's electronic learning environment QMPlus. These materials include discussion threads, chat rooms, recorded materials and recommended journal articles.

All students have access to the onsite and virtual library and computing facilities of the University.

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 examinations, essays, problem based learning and SAQ to scientific and case presentations. Professional reflective learning is also included 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 8 modules. All modules are compulsory and all are at level 7. Some of the taught material will be shared with students on the MSc Clinical Microbiology and the MSc Clinical Science (Infection science) allowing the cohort to learn inter-professionally with clinicians and other professionals studying Clinical Microbiology.

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The modules are
 Introduction to clinical microbiology
 Molecular biology and Pathogenesis
 Professional and research skills
 Clinical Microbiology and Infection
 Antimicrobials in the Laboratory and in Clinical Practice
 Laboratory management
 Prevention and Control of Communicable Disease in the Hospital and in the Community
 Research Project and Dissertation. (Students who are unable to complete a project can be considered for the award of Postgraduate diploma in Biomedical Science (medical microbiology)).

For full time students only:

In addition to the modules above a further non credit bearing module "formative studies" is taught during semester 1 and 2. This module enables students to participate fully in discussions about laboratory techniques and clinical cases with their part-time colleagues, 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 clinical journal club and research meetings within the Centre.

The research project and dissertation is usually undertaken within the Blizard Institute research teams.

For part time students only:

There are fewer credits for the first year teaching to enable students to develop the balance between their academic, home and work commitments.

Students will be required to prepare for and complete the final module "Research Project and Dissertation" throughout years 1 and 2. Organisation, timing and delivery of the research project will be discussed individually with the students and their NHS project supervisor at the earliest opportunity during the first year in order to maximise flexibility, within constraints for assessment deadlines required to complete the course.

Academic Year of Study FT - Year 1

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Introduction to clinical microbiology	ICM7092	30	7	Compulsory	1	Semesters 1-3
Molecular biology and pathogenesis	ICM7093	15	7	Compulsory	1	Semesters 1 & 2
Antimicrobials in the laboratory and in clinical practice	ICM7042	15	7	Compulsory	1	Semester 1
Laboratory management	ICM7098	15	7	Compulsory	1	Semesters 1 & 2
Prevention and Control of Infection in the Hospital and in the Community	ICM7046	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
Professional and research skills	ICM7091	15	7	Compulsory	1	Semesters 1 & 2
Clinical microbiology and Infection	ICM7094	15	7	Compulsory	1	Semesters 2 & 3
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
Introduction to clinical microbiology	ICM7092	30	7	Compulsory	1	Semesters 1-3
Molecular biology and pathogenesis	ICM7093	15	7	Compulsory	1	Semesters 1 & 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
Laboratory management	ICM7098	15	7	Compulsory	2	Semesters 1 & 2
Prevention and Control of Infection in the Hospital and in the Community	ICM7046	15	7	Compulsory	2	Semesters 1 & 2
Professional and research skills	ICM7091	15	7	Compulsory	2	Semesters 1 & 2
Clinical microbiology and Infection	ICM7094	15	7	Compulsory	2	Semesters 2 & 3
Project and dissertation	ICM7099	60	7	Core	2	Semesters 1-3

What are the entry requirements?

Minimum of a 2:1 degree in biomedical science (or degree with a significant content of medical microbiology) or equivalent. Applicants who do not reach academic standards but have appropriate work based experience may be considered for a place on the course at the discretion of the Dean of Postgraduate Studies.

Applicants for part time study must hold a full-time appointment or attachment in a medical/clinical microbiology department of a medical school, hospital, PHE or other appropriate institution for the duration of their studies. The employing Institution must confirm they will be able to provide and support the research project at the place of work.

Non-native English speakers must achieve a minimum of IELTS 7.0 and provide certification of this. Students are required to achieve a minimum of 6.5 in their written element. Students must be able to sit examinations at a British Council Centre, or a similar approved centre, under invigilation or be able to attend examinations in the UK.

If the offer of a place is conditional upon achieving the above standard in an English language test the student may be offered the opportunity to attend the appropriate pre-sessional course at QMUL. At the end of the pre-sessional course the student will be assessed by the Queen Mary Language and Learning Unit to confirm that the student has the language skills to complete the course.

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

Students are given the opportunity to give direct anonymous feedback on lectures and practicals via the electronic learning environment.

The Blizard Institute Staff-Student Liaison Committee provides a formal means of communication and discussion between the Institute and its students. The committee consists of student representatives from each year in the Institute together with appropriate representation from staff within the 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.

The Blizard Institute operates a Learning and Teaching Committee, which advises the 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 information from the SSLC and consideration of student surveys.

The institute operates an Annual Programme Review for every course. 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 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 PGTS and module evaluations.

What academic support is available?

The first few weeks of the course are based around induction, an introduction to the support services such as DDS and the library and study skills team and includes the development of key laboratory and study skills.

Formative assessments take place early in the year to enable students to understand the principles of essay writing, good referencing techniques and interpretation of feedback from Turnitin.

Every student is assigned a personal adviser for support. For part time students the personal adviser will liaise closely with employers and workplace tutors.

Programme-specific rules and facts

Applicants for part time study must hold a full-time appointment or attachment in a medical/clinical microbiology department of a medical school, hospital, PHE or other appropriate institution for the duration of their studies. The employing Institution must

confirm they will be able to provide and support the research project at the place of work.

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

During induction all students attend sessions where DDS and the study skills teams explain possible support available. The course and module handbooks are available in both printed form and online. These handbooks contain information about courses and all learning outcomes and key information about assessment. The course utilises the Tallis on line reading list system and this is reviewed annually specifically to ensure key texts are available both electronically and in print. The majority of lectures, unless they contain sensitive data, are lecture captured to allow students to review the content after a lecture. Asynchronous blended learning includes discussion boards, FAQ, quizzes and images from practical sessions. All content uploaded to QMplus should be checked against the accessibility standards. Personal advisers are encouraged to discuss openly at the first meeting the mechanisms of support available for the student.

Links with employers, placement opportunities and transferable skills

The course content is reviewed annually to ensure continuing relevance to the professional development of the Biomedical Scientist. There is a formal programme management committee where lay members of the public and employers are represented. For students who are not clinicians you 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. Graduates also apply for 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 Learning and Teaching Committee:

06/05/2022 (for Sept 2022)

Date Programme Specification approved by Taught Programmes Board: