Programme Title: Clinical Science (Infection Science)

Programme Specification

Awarding Body/Institution: Queen Mary University of London
Teaching Institution: Queen Mary University of London
Name of Final Award and Programme Title: MSc Clinical Science (Infection Science)
Name of Interim Award(s): PGDip/PGCert
Duration of Study / Period of Registration: 3 academic years
QM Programme Code / UCAS Code(s): A3U5
QAA Benchmark Group:
FHEQ Level of Award: Level 7
Programme Accredited by: National School of Healthcare Science (NSHCS) and Academy of Healthcare Sciences (AHCS)
Date Programme Specification Approved: 20 Feb 2017
Responsible School / Institute: Blizard Institute

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

Institution(s) other than Queen Mary that will provide some teaching for the programme

Programme Outline
The programme will provide the essential underpinning academic learning for the trainees on the national Scientist training Programme (STP). Teaching will be delivered by day release supported by electronic learning. The programme includes input by specialism experts in NHS service roles, is closely linked by partnership working with the workplace 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 Biomedical Science (Medical Microbiology)

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, in conjunction with the NHS Modernising Scientific Careers Programme.
Queen Mary will award Master’s degrees to Trainees who have demonstrated:

- 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 the discipline
- conceptual understanding that enables the student:
  - to evaluate critically current research and advanced scholarship in the discipline
  - 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 understand the structure of the NHS and the role Healthcare Scientists play
  - the ability to manage the work place and interact with colleagues
  - being able to lead and demonstrate leadership skills
  - being competent in diagnostic aspects of the Healthcare Scientist Role
  - the ability to communicate with patients

**What Will You Be Expected to Achieve?**

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

<table>
<thead>
<tr>
<th>Academic Content:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A1</strong> Knowledge of infection science and and its applications, and awareness of current problems and research approaches appropriate to specialism</td>
</tr>
<tr>
<td><strong>A2</strong> Structure and function of all the main systems (circulatory, skeletal, nervous, respiratory, sensory, gastrointestinal and endocrine)</td>
</tr>
<tr>
<td><strong>A3</strong> Context of research and audit within NHS and roles of Healthcare Scientists in research for patient benefit and innovation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disciplinary Skills - able to:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B1</strong> 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</td>
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<td><strong>B2</strong> demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level</td>
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<td><strong>B3</strong> continue to advance their knowledge and understanding, and to develop new skills to a high level</td>
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</table>
Programme Title: Clinical Science (Infection Science)

Attributes:

| C1 | exercise initiative and personal responsibility |
| C2 | make decisions in complex and unpredictable situations |
| C3 | 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. 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 their sponsoring institution to their studies, and to discuss and critically evaluate these techniques with their colleagues (including clinicians and clinical 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.

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 MCQ to scientific presentations and case presentations. Professional reflective learning is also included within learning and assessment strategies.

How is the Programme Structured?

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 allowing the cohort to mix with clinicians and other professionals studying Clinical Microbiology.

The first year of study commences with a short block of study "Generic health care sciences. Integrating science with professional practice". The module is specific to Infection Sciences and is designed to ensure that all students have a solid basic knowledge and practical skill set before moving to their work base.

The rest of the modules for the year are delivered by day release attendance and distance learning. These modules are "Introduction to clinical microbiology" and "Molecular biology and Pathogenesis".

The second year of study is a blend of on site learning and distance learning and includes the modules "Professional and research skills" "Clinical Microbiology and Infection" "Antimicrobials in the laboratory and in clinical practice" and "Prevention and Control of Communicable Disease in the Hospital and in the Community".
Programme Title: Clinical Science (Infection Science)

Throughout years one and two students will be required to complete short projects at their place of employment in preparation for the final module “Research Project and Dissertation”. This module will span years 2 and 3. Organisation, timing and delivery of the main research project and the three short projects will be discussed individually with the students and their NHS trainers at the earliest opportunity during the first year (likely to be during / or immediately after the student has completed their rotation with the most relevance to their chosen specialism) in order to maximise flexibility, within constraints for assessment deadlines required to complete the course and graduate by summer of the third year.

Students who are unable to complete a project can be considered for the award of Postgraduate diploma in clinical science. Students who complete modules in generic health care sciences, introduction to clinical microbiology and molecular biology can be considered for the award of the postgraduate certificate in clinical science.

### Academic Year of Study PT - Year 1

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Module Code</th>
<th>Credits</th>
<th>Level</th>
<th>Module Selection Status</th>
<th>Academic Year of Study</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to clinical microbiology</td>
<td>ICM7092</td>
<td>30</td>
<td>7</td>
<td>Compulsory</td>
<td>1</td>
<td>Semesters 1-3</td>
</tr>
<tr>
<td>Molecular biology and pathogenesis</td>
<td>ICM7093</td>
<td>15</td>
<td>7</td>
<td>Compulsory</td>
<td>1</td>
<td>Semesters 1-3</td>
</tr>
<tr>
<td>Integrating science with professional practice</td>
<td>ICM7090</td>
<td>15</td>
<td>7</td>
<td>Compulsory</td>
<td>1</td>
<td>Semesters 1-3</td>
</tr>
</tbody>
</table>

### Academic Year of Study PT - Year 2

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Module Code</th>
<th>Credits</th>
<th>Level</th>
<th>Module Selection Status</th>
<th>Academic Year of Study</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimicrobials in the Laboratory and in Clinical Practice</td>
<td>ICM7042</td>
<td>15</td>
<td>7</td>
<td>Compulsory</td>
<td>2</td>
<td>Semester 1</td>
</tr>
<tr>
<td>Professional and research skills</td>
<td>ICM7091</td>
<td>15</td>
<td>7</td>
<td>Compulsory</td>
<td>2</td>
<td>Semesters 1-3</td>
</tr>
<tr>
<td>Clinical Microbiology and Infection</td>
<td>ICM7094</td>
<td>15</td>
<td>7</td>
<td>Compulsory</td>
<td>2</td>
<td>Semester 2 &amp; 3</td>
</tr>
<tr>
<td>Prevention and Control of Infection in the Hospital and in the Community</td>
<td>ICM7046</td>
<td>15</td>
<td>7</td>
<td>Compulsory</td>
<td>2</td>
<td>Semesters 1 &amp; 2</td>
</tr>
</tbody>
</table>

### Academic Year of Study PT - Year 3

Queen Mary
University of London
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 are in full time employment within the NHS but 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 (SMD).

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.

Non-native 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 (or equivalent in TOEFL). 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 and the student has achieved IELTS 6.5; within the last 12 months at the discretion of the course organiser, they can be offered the opportunity to attend the presessional course for at least 5 weeks instead of taking IELTS or TOEFL again. At the end of the presessional 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 Do We Listen 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.

Academic Support

Personal Tutor arrangements
- Each student will be assigned a personal tutor for academic support. This personal tutor will liaise closely with the employers and workplace tutors for each student.

Programme-specific Rules and Facts

Applicants for must hold a full time STP post.
All modules on the course must be passed. No module failure can be compensated.

Specific Support for Disabled Students

Queen Mary has a central Disability and Dyslexia Service (DDS) that offers support for all students with disabilities, specific learning difficulties and mental health issues. The DDS supports all Queen Mary students: full-time, part-time, undergraduate, postgraduate, UK and international at all campuses and all sites.

Students can access advice, guidance and support in the following areas:

- Finding out if you have a specific learning difficulty like dyslexia
- Applying for funding through the Disabled Students’ Allowance (DSA)
- Arranging DSA assessments of need
- Special arrangements in examinations
- Accessing loaned equipment (e.g. digital recorders)
- Specialist one-to-one “study skills” tuition
- Ensuring access to course materials in alternative formats (e.g. Braille)
- Providing educational support workers (e.g. note-takers, readers, library assistants)
- Mentoring support for students with mental health issues and conditions on the autistic spectrum.

Links With Employers, Placement Opportunities and Transferable Skills

The students are employed by the NHS and the contract to provide this course is by competitive tendering to the NHS. The course has to be accredited by the Academy of Health Sciences - details to be confirmed by NHS

Programme Specification Approval

| Person completing Programme Specification | Michele Branscombe |
| Person responsible for management of programme | Michele Branscombe |
| Date Programme Specification produced/amended by School Learning and Teaching Committee | 20.08.2019 (for 2019/20) |
| Date Programme Specification approved by Taught Programmes Board | 20 Feb 2017 |