Programme Title: Clinical Science (Infection Science)

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 Clinical Science (Infection Science)
Name of interim award(s): PGDip/PGCert
Duration of study / period of registration: 3 academic years (part time)
Queen Mary programme code(s): A3U5
QAA Benchmark Group: Level 7
FHEQ Level of Award: Level 7
Programme accredited by: National School of Healthcare Science (NSHCS) and Health Education England (HEE)
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 trainees on the national Scientist training Programme (STP). Teaching will be delivered using both inperson and asynchronous content. 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 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.
Programme Title: Clinical Science (Infection Science)

Queen Mary will award Master’s degrees to students 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 and professional practice within Infection Science
- 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 Infection Science
- 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 within the NHS
  - 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 the patient, laboratory medicine and laboratory management.

Academic Content:

| A1 | Knowledge of infection science and its applications, and awareness of current problems and research approaches appropriate to specialism |
| A2 | Understand in context research and audit within NHS and roles of Healthcare Scientists in research for patient benefit and innovation |

Disciplinary Skills - able to:

| B1 | deal with complex issues both systematically and creatively, make sound judgment in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences |
| B2 | demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level |
B3 continue to advance their knowledge and understanding, and to develop new skills to a high level

Attributes:

C1 exercise initiative and personal responsibility
C2 make decisions in complex and unpredictable situations
C3 Demonstrate an understanding and commitment to 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 core (must be taken and passed) 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 skills and then includes modules “Integrating science with professional practice”, “Introduction to clinical microbiology” and “Molecular biology and Pathogenesis”.

The second year of study 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”.
Programme Title: Clinical Science (Infecton Science)

The final module "Research Project and Dissertation" spans 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 the first year of study 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>Integrating Science with Professional Practice</td>
<td>ICM7090</td>
<td>15</td>
<td>7</td>
<td>Core</td>
<td>1</td>
<td>Semesters 1-3</td>
</tr>
<tr>
<td>Introduction to clinical microbiology</td>
<td>ICM7092</td>
<td>30</td>
<td>7</td>
<td>Core</td>
<td>1</td>
<td>Semesters 1 &amp; 2</td>
</tr>
<tr>
<td>Molecular biology and pathogenesis</td>
<td>ICM7093</td>
<td>15</td>
<td>7</td>
<td>Core</td>
<td>1</td>
<td>Semesters 1 &amp; 2</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>Professional and research skills</td>
<td>ICM7091</td>
<td>15</td>
<td>7</td>
<td>Core</td>
<td>2</td>
<td>Semesters 1-3</td>
</tr>
<tr>
<td>Antimicrobials in the laboratory and clinical practice</td>
<td>ICM7042</td>
<td>15</td>
<td>7</td>
<td>Core</td>
<td>2</td>
<td>Semester 1</td>
</tr>
<tr>
<td>Prevention and control of communicable disease in the hospital and in the community</td>
<td>ICM7046</td>
<td>15</td>
<td>7</td>
<td>Core</td>
<td>2</td>
<td>Semesters 1 &amp; 2</td>
</tr>
<tr>
<td>Clinical microbiology and infection</td>
<td>ICM7094</td>
<td>15</td>
<td>7</td>
<td>Core</td>
<td>2</td>
<td>Semester 2</td>
</tr>
</tbody>
</table>

### Academic Year of Study  PT - Year 3

<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></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Programme Title:** Clinical Science (Infecton Science)

<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>Project and dissertation</td>
<td>ICM7097</td>
<td>60</td>
<td>7</td>
<td>Core</td>
<td>3</td>
<td>Semesters 1 &amp; 2</td>
</tr>
</tbody>
</table>

**What are the entry requirements?**

All applicants must be employed by the NHS/PHE/PHW or equivalent and registered with the NSHCS as a trainee on the Scientist Training Programme.

In addition to fulfilling the recruitment requirement for employment as an trainee as defined by the NSHCS/HEE the student must hold 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.

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).

**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, the library and study skills team and includes the development of key 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. The personal adviser will liaise closely with employers and workplace tutors to support the student.

**Programme-specific rules and facts**

For this course all modules are core and can not be condoned.

Students who leave the STP training programme can not continue on the course but can request a transfer to the MSc
Programme Title: Clinical Science (Infecton Science)

Biomedical Science (Medical Microbiology) if appropriate.

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 online 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 it continues to fulfil the academic component of the STP. The programme lead meets regularly with other university providers of MSc Clinical Science courses, HEE and NSHCS to ensure that our graduates will fulfil the academic requirements for HCPC registration as a clinical scientist. There is a formal programme management committee where lay members of the public and employers are represented.

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: 9/8/21 (For Sept 2021)

Date Programme Specification approved by Taught Programmes Board: