Year of entry: 2021/22

Programme Specification

1	**Awarding body**	University of London					
2	**Teaching Institution**	**Birkbeck College**					
3	**Programme Title(s)**	**MSc Microbiology**					
4	**Programme Code(s)**	TMSBIMCR_C (2 or 3 years, part-time)					
5	**UCAS code (if applicable)**	N/A					
6	**Home Department**	Biological Sciences					
7	**Exit Award(s)**	PGDip (120 credits) PGCert (60 credits) Alternative exit award of *MSc Biological Sciences* awarded for any 180 credits at level 7 from modules in home department (limited to a max. of one project module).					
8	**Duration of Study (number of years)**	2 or 3 years (MSc)					
9	**Mode of Study**	FT		PT	**x**	DL	
10	**Level of Award (FHEQ)**	7					
11	**Other teaching depts or institution**	N/A					
12	**Professional, Statutory Regulatory Body(PSRB) details**	N/A					
13	**QAA Benchmark Group**	N/A					

14	**Programme Rationale & Aims**
	This is a research-based degree, providing students with essential training in scientific research methodology and data analysis, as well as specific scientific techniques appropriate to the research microbiologist. The course draws from the Department of Biological Sciences research strengths/expertise in cell biology of infectious diseases, host parasite relationships and drug discovery across a wide range of infectious pathogens/bacteriology, and parasitology. The course will allow students to update both their practical skills and their microbiological knowledge, providing training in the types of skills medical and scientific employers look for, including sound technical ability, a good understanding of safe laboratory practice, experimental design and analysis, and problem solving.

15	**Entry Criteria**
	The normal entry requirement will be a second class honours degree in an appropriate science discipline. Less- or alternatively-qualified students may be accepted following the completion of a 1-year qualifying programme taken from existing Level 6 and Level 7 modules.

16	**Learning Outcomes**
	Subject specific: 1. Demonstrate a sound knowledge and understanding of the science underlying the key areas of microbiology methodology and its practical applications. 2. Show a critical understanding of recent advances in their field of study. 3. Critically assess current literature in the discipline. 4. Formulate a research or method development plan and carry out the appropriate literature and data searches. 5. Demonstrate a critical and professional approach to quality of analysis. **Intellectual:** 6. Ability to follow complex scientific protocols. 7. Critical reasoning. 8. Analysis, evaluation and interpretation of results. 9. Synthesis of information from diverse sources. 10. Formulation of hypotheses and hypotheses testing. 11. Relation of subject specific knowledge to a broader context. **Practical:** 12. Carry out experimental procedures and operate advanced molecular microbiology equipment. 13. Work safely and efficiently in a laboratory. 14. Access a variety of subject-specific and more generic databases and information sources. 15. Apply skills to practical problems and, where appropriate, develop new skills. 16. Use different forms of IT confidently. **Personal social:** 17. Work as part of a team both in person and via virtual interaction. 18. Manage time efficiently to manage the taught and independent research areas of the programme. 19. Present and communicate material and ideas in both written (including electronic communication) and oral formats. 20. Learn independently. 21. Show a professionalism in their approach to microbiological work.

17	**Learning, teaching and assessment methods**
	This will involve face-to-face teaching of the underlying principles of the core topics, in taught modules and through immersion with active researchers in the laboratories. Considerable emphasis will be placed on developing practical laboratory skills and on systematically applying these skills to complex research problems in original and flexible ways. Taught modules will include tutorials, formal lectures, problem-solving sessions (computer-based, classroom-based and lab-based), laboratory practical sessions, and computer-aided learning (e.g. through the VLE). Research-related and project modules will require students to prepare and deliver oral presentations and to generate written reports.

	An important element of the teaching will be delivered via students' direct experience of hands-on scientific research, under the supervision of world-class research staff, in our own research laboratories, or in industrial settings if appropriate (e.g. through placement or if the student is already employed in a relevant job). This immersion in the research environment will provide in-depth training in specialist methods and in critical analysis of data.

18	**Programme Description**
	The MSc Microbiology is composed of six 15-credit taught modules reflecting the research interests of the Microbiology section of the Department of Biological Sciences, and a further 90 credits of training modules culminating in a laboratory-based research project. Where appropriate, students may have the opportunity to undertake their research projects at their place of work. The programme is normally taken over 2 years, but alternatively may be taken over 3 years. *Research in Microbiology* and *Research Skills* (taken in year 1) and *Research Project Dissertation* and *Research Project MSc Microbiology* (taken in year 2) are offered annually. The other modules are offered every-other-year. This means that the annual module composition varies depending on the modules on offer in the year you join the programme. The routes through the programme are further described in the tables below. Modules will provide a range of assessments, including take home exams, practical work, essays and unseen exams. All taught modules, as well as *Research in Microbiology* and *Research Skills*, are assessed by coursework, and either an extended essay or an examination. Progression through the years of the programme will depend on successful completion of all elements assessed. The degree award is based on an unweighted aggregation of module grades. Any combination of taught modules up to the value of 120 credits will permit a student to exit with a Postgraduate Diploma (PGDip); a Postgraduate Certificate may be awarded on exit with 60 credits from the lists of approved modules.

19	**Programme Structure**			
Part time (2-year programme)				
Year 1				
Level	**Module Code**	**Module Title**	**Credits**	**Status***
7	BCBC002S7	Research in Microbiology	30	Compulsory
7	SCBS047H7	Research Skills (MSc Microbiology)	15	Compulsory
Plus THREE 15-credit modules (45 credits) from a list of modules (A or B) below, for a total of 90 credits. Taught modules are offered every-other-year, so the three taught modules you take in year 1 will depend on which group is on offer in the year you join the programme.				
Year 2				
7	SCBS048H7	Research Project Literature Review	15	Compulsory
7	BCBC011S7	Research Project MSc Microbiology	30	Compulsory

Plus THREE 15-credit modules (45 credits) from a list of modules (A or B) below, for a total of 90 credits. Taught modules are offered every-other-year, so the three taught modules you take in year 2 will be the three that you *did not* take in year 1.				
Taught Modules A				
7	BCBC005H7	Medical Bacteriology	15	Compulsory
7	BCBC006H7	Bacterial Pathogenicity	15	Compulsory
7	BCBC007H7	Molecular Microbiology	15	Compulsory
Taught Modules B				
7	BCBC009H7	Antimicrobials	15	Compulsory
7	BCBC017H7	Medicinal Chemistry of Natural Products	15	Compulsory
7	BCBC008H7	Parasitology	15	Compulsory
Part time (3-year programme)				
Year 1				
Level	**Module Code**	**Module Title**	**Credits**	**Status***
7	BCBC002S7	Research in Microbiology	30	Compulsory
Plus TWO 15-credit modules from a list of modules (A or B) as above, for a total of **60 credits**. Taught modules are offered every-other-year, so the two taught modules you take in year 1 will depend on which group is on offer in the year you join the programme.				
Year 2				
7	SCBS047H7	Research Skills (MSc Microbiology)	15	Compulsory
Plus THREE 15-credit modules (45 credits) from a list of modules (A or B) as above, for a total of **60 credits**. Taught modules are offered every-other-year, so the three taught modules you take in year 2 will be the three that were *not offered* in year 1.				
Year 3				
7	SCBS048H7	Research Project Literature Review	15	Compulsory
7	BCBC011S7	Research Project MSc Microbiology	30	Compulsory
Plus ONE 15-credit module (15 credits) from a list of modules (A or B) as above, for a total of **60 credits**. Taught modules are offered every-other-year, so the one taught modules you take in year 3 will be the one that you *did not* take in year 1.				

Status*

CORE – Module must be taken and passed by student; COMPULSORY – Module must be taken, mark can be reviewed at sub-exam board; OPTIONAL – Student can choose to take this module

20	**Programme Director**	Dr Philip Lowden
21	**Start Date** ***(term/year)***	Prior to 2008/9
22	**Date approved by TQEC**	Prior to 2008/9
23	**Date approved by Academic Board**	Prior to 2008/9
24	**Date(s) updated/amended**	**08 July 2020.** Added additional exit award of MSc Biological Sciences