Programme Specification[1]

1. Programme Title(s) and Code(s):

Programme Title	*UCAS Code*	*GU Code*
BSc Honours in Microbiology	C500	C500-2105

2. Academic Session:

2018-19

3. SCQF Level (see Scottish Credit and Qualifications Framework Levels):

10

4. Credits:

480

5. Entrance Requirements:

Please refer to the current undergraduate prospectus at: http://www.gla.ac.uk/undergraduate/

6. ATAS Certificate Requirement (see Academic Technology Approval Scheme):

ATAS Certificate not required

7. Attendance Type:

Full Time

8. Programme Aims:

Microbiology is the study of all aspects of micro-organisms, which include bacteria, viruses, algae, fungi and protozoa. Micro-organisms are central to the developments that have taken place in genetic engineering and biotechnology. They are of great importance as the agents responsible for the infectious diseases, and for maintenance of the biosphere. The Honours course includes detailed consideration of current themes such as the importance of micro-organisms in biotechnolological industries, agriculture, food, water, the environment and

[1] This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if full advantage is taken of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each course can be found in course handbooks and other programme documentation and online at www.gla.ac.uk/

The accuracy of the information in this document is reviewed periodically by the University and may be checked by the Quality Assurance Agency for Higher Education.

medicine.

Particular strengths of the Programme are: a) an emphasis on infectious diseases and medical microbiology; b) advanced study of current topics taught by active researchers in microbiology, these include 1) the structure of micro-organisms, 2) the mechanisms by which bacteria cause disease, 3) how new vaccines are developed 4) marine microbiology and biotechnology; c) the opportunity to carry out a research project in a microbiology research group. Many of these projects are undertaken in related departments, local hospital laboratories or industry; d) a fieldwork course in Marine Microbiology

The Principal Aims are:

- To provide advanced knowledge and scholarship in Microbiology and to develop critical judgement on scientific issues
- To stimulate interest in Microbiology as a scientific discipline central to modern biology
- To prepare the student either for a career as a microbiologist or for further studies leading to a higher degree in Microbiology or an allied science
- To develop those advanced transferable, intellectual, interpersonal and practical skills which may be of advantage in a wide range of employment and further study
- To develop in students the flexibility to adapt to change throughout their working lives

9. Intended Learning Outcomes of Programme:

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas:

Knowledge and Understanding

By the end of this programme students will be able to:

- demonstrate advanced knowledge and understanding of the central facts and concepts of Microbiology
- demonstrate knowledge and understanding of four advanced specialist topics in Microbiology
- demonstrate an understanding of professional ethics in science and of the principles that can guide ethical decision-making in biological controversies
- demonstrate competence in safe working in a microbiology laboratory
- demonstrate advanced knowledge and understanding of the main investigative methods used in Microbiology, both in the laboratory and in the field
- demonstrate their ability to learn advanced topics in microbiology independently

Skills and Other Attributes

By the end of this programme students will be able to:

Subject-specific/practical skills

- carry out, under supervision, a major microbiological research project and report its findings

Intellectual skills

- analyse and interpret microbiological data, where appropriate choosing relevant statistical tests
- critically analyse research papers in Microbiology
- selective information from published sources and use this to present critical reviews of the current state of knowledge in Microbiology

Transferable/key skills

- use computers to search databases, compose reports for written and oral presentation and analyse data
- give clear, well-constructed oral presentations on advanced microbiological topics
- demonstrate an ability to manage time appropriately in order to prioritise tasks and meet deadlines

10. Typical Learning and Teaching Approaches:

A range of teaching methods are used during the programme, including:

- Lectures
- Laboratories
- Workshops
- Group projects
- Poster presentations
- Field trip
- Tutorials
- Seminars
- Honours research project

11. Typical Assessment Methods:

A number of different methods are used to assess the courses which make up the programme, including:

Written degree examinations (essays, objective testing, short answers and problem-solving)
Class examinations
Laboratory reports
Field course reports
Essays
Honours project report
Poster presentations
Oral presentations
Peer review of group work

12. Programme Structure and Features:

The BSc Honours programme normally lasts 4 years, comprises both compulsory and optional courses, and comprises 480 credits (120 credits each year).

Structure

Course Title	Course Code	Credits	Core	Optional	Semester(s) taught
Year 1:					
Biology-1A	BIOL1001	20	✓		Sem 1
Biology-1B	BIOL1002	20	✓		Sem 2
EITHER Chemistry-1	CHEM1001	40	✓		Sem 1–2
OR Science Fundamentals-1X & -1Y	CHEM1002 CHEM1003	2 x 20			Sem 1–2
other Level-1 course(s)		40		✓	
Year 2:					
Fundamental Topics in Biology 2	BIOL2039	30	✓		Sem 1
Microbiology and Immunology 2	BIOL2044	30	✓		Sem 2
Key Skills in Biology 2	BIOL2040	30		✓	Sem 1
other Level-1 or -2 course(s)		30		✓	
Year 3 (Honours):					
Medical Microbiology 3A	BIOL4092	60	✓		Sem 1
Medical Microbiology 3B	BIOL4093	60	✓		Sem 2
Year 4 (Honours final year):					
Microbiology Advanced Studies	BIOL4072	20	✓		Sem 1–2
One of these project courses: Life Sciences Investigative Honours Project Life Sciences Dissertation Honours Project	 BIOL4246P BIOL4247P	20	✓		Sem 1–2

Life Sciences Outreach Honours Project Life Sciences Internship Honours Project	BIOL4248P BIOL4249P				
4 x Life Sciences Honours options		4 x 20		✓	

Life Sciences Honours Options:

The programme will prescribe a mixture of compulsory, recommended and/or suitable Honours options courses. In addition, the list of available Honours option courses is liable to change each session. The options available in the current session can be found via the University's Course Catalogue (www.gla.ac.uk/coursecatalogue/).

Features:

Students may apply to study abroad during either Year 2 or Year 3; this is subject to approval by the School of Life Sciences.

Years 1 and 2 may be available for part-time study. Years 3 and 4 are normally only available on a full-time basis.

Regulations:

This programme will be governed by the relevant regulations published in the University Calendar. These regulations include the requirements in relation to:

(a) Award of the degree

(b) Progress

(c) Early exit awards

(d) (For undergraduate programmes, where appropriate) Entry to Honours

www.gla.ac.uk/services/senateoffice/policies/calendar/

13. Programme Accredited By:

Not applicable

14. Location(s):

Glasgow

15. College:

College of Medical Veterinary and Life Sciences

16. Lead School/Institute:

Life Sciences [REG20100000]

17. Is this programme collaborative with another institution:

No

18. Awarding Institution(s):

University of Glasgow

19. Teaching Institution(s):

University of Glasgow

20. Language of Instruction:

English

21. Language of Assessment:

English

22. Relevant QAA Subject Benchmark Statements (see Quality Assurance Agency for Higher Education) and Other External or Internal Reference Points:

See QAA Benchmark Statement for Biosciences: http://www.qaa.ac.uk/academicinfrastructure/benchmark/honours/biosciences.asp

23. Additional Relevant Information (if applicable):

Support for students is provided by the Postgraduate/Undergraduate Adviser(s) of Studies supported by University resources such LEADS (www.gla.ac.uk/myglasgow/leads/), Counselling & Psychological Services (www.gla.ac.uk/services/counselling/), the Disability Service (www.gla.ac.uk/services/studentdisability/) and the Careers Service (www.gla.ac.uk/services/careers/).

24. Online Learning:

No

25. Date of approval:	24/11/2017