

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

<i>Programme Title</i>	<i>UCAS Code</i>	<i>GU Code</i>
BSc Honours in Genetics	C400	C400-2105

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:

The ability to determine and exploit the entire DNA sequence ("genome") of an organism (bacteria-to-human) is revolutionising our understanding of the living world. The discipline of Genetics is at the forefront of this "post-genomic" revolution. The methods used in, and knowledge acquired by, Genetics are being applied throughout biology and impact such diverse areas as the diagnosis and treatment of human diseases, crime/forensics and ecology/conservation. These approaches and their underlying concepts form the core of the Honours

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.

Programme in Genetics. This programme combines elements of classical and molecular genetics and applies them to organisms ranging from viruses to plants and to man. The programme therefore provides a flexible route into almost any area of biological or biomedical science.

Particular strengths of the programme in Glasgow are: a) researchers working with the whole range of genetic model organisms contribute to teaching; b) we emphasise methods of learning in which our students take the lead, such as problem-based learning, workshops and poster sessions; c) we provide extensive laboratory training; d) we offer individual laboratory-based research projects for all; and e) students can choose from a wide variety of specialised topics in final year, from human molecular and medical genetics, through molecular biology of plants, to cancer and evolution.

Our Principal Aims are:

- To stimulate your enthusiastic and inquisitive interest in understanding living organisms at the genetic, molecular and whole organism levels.
- To help you understand the relevance of genetics to everyday life, such as in treatment of diseases, the industrial use of organisms and biological products, forensics and conservation.
- To provide you with practice in speaking, writing and working in groups, essential for biologists, but also invaluable in the wider workplace.
- To train you in laboratory and scholarship skills appropriate for employment, postgraduate study and research in the many disciplines to which genetics is now central.

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 a broad and comprehensive understanding of the central methods and concepts of Genetics
- demonstrate detailed knowledge and understanding of the current state of knowledge in up to four particular sub-specialities of your choosing

Skills and Other Attributes

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

Subject-specific/practical skills

- with supervision, carry out a laboratory-based research project, write a report on the resulting findings, present your findings to an audience using visual aids and discuss your findings in an interview

Intellectual skills

- demonstrate your ability to interpret data presented in research papers and to appreciate the strategies that underlie current research
- extract information from current literature, including journal papers, to enable you, with supervision, to write a review/dissertation on a focussed topic of your own choice

Transferable/key skills

- use computers to search databases of literature, retrieve molecular sequences and structures, process and analyse data, write reports and prepare presentations
- work with others to analyse specific topics, prepare explanatory posters and design laboratory experiments
- present your research findings to an audience using visual aids and discuss your findings in an interview

10. Typical Learning and Teaching Approaches:

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

- Lectures
- Laboratories

- Workshops
- Tutorials
- Problem Based Learning
- Seminars
- Dissertation
- 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

Essays

Dissertation (extended essay and annotated bibliography)

Honours project (research performance, interview and written report)

Project and dissertation presentations

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
<i>other Level-1 course(s)</i>		40		✓	
Year 2:					
Fundamental Topics in Biology 2	BIOL2039	30	✓		Sem 1
Genes, Molecules & Cells 2	BIOL2042	30	✓		Sem 2
Key Skills in Biology 2	BIOL2040	30		✓	Sem 1
<i>other Level-1 or -2 course(s)</i>		30		✓	
Year 3 (Honours):					
Genetics 3A	BIOL4051	60	✓		Sem 1
Genetics 3B	BIOL4052	60	✓		Sem 2
Year 4 (Honours final year):					
Genetics Advanced Studies	BIOL4053	20	✓		Sem 1–2
<i>One of these project courses:</i> Life Sciences Investigative Honours Project Life Sciences Dissertation Honours Project Life Sciences Outreach Honours Project Life Sciences Internship Honours Project	BIOL4246P BIOL4247P BIOL4248P BIOL4249P	20	✓		Sem 1–2
<i>4 x Life Sciences Honours options</i>		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](http://www.qaa.ac.uk/academicinfrastructure/benchmark/honours/biosciences.asp)) 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 as 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