# **BSc (Hons) Biology (and pathways)**

- Exemptions
- Programme Overview
- Programme Aims
- Programme Intended Learning Outcomes (ILOs)
- Programme content
- Assessment methods
- Work experience and placement opportunities
- Additional Costs Table
- Graduate Attributes
- Modifications
- Appendix 1: Programme Structure Diagram BSc (Hons) Biology
- Appendix 2: Map of Intended Learning Outcomes
- Appendix 3: Map of Summative Assessment Tasks by Module
- Appendix 4: Module Descriptors

Awarding institution	Bath Spa University
Teaching institution	Bath Spa University
School	School of Sciences
Main campus	Newton Park
Other sites of delivery	n/a
Other Schools involved in delivery	School of Education
Name of award(s)	Biology
	Biology (Human Biology)
	Biology (Conservation Biology)
	Biology (Microbiology)
Qualification (final award)	BSc (Hons)
Intermediate awards available	CertHE, DipHE, BSc
Routes available	Single/Joint
Professional Placement Year	Optional
Duration of award	3 years full-time, 4 years with Professional Placement Year
	6 years part time

Modes of delivery offered	Campus-based
Regulatory Scheme [1]	Undergraduate Academic Framework
Exemptions from regulations/framework[2]	n/a
Professional, Statutory and Regulatory Body accreditation	n/a
Date of most recent PSRB approval (month and year)	n/a
Renewal of PSRB approval due (month and year)	n/a
UCAS code	C100
	S117 - with placement year
Route code (SITS)	BISIN Biology Single
Relevant QAA Subject Benchmark Statements (including date of publication)	Biosciences (March 2023)
Date of most recent approval	April 2019
Date specification last updated	January 2024

## **Exemptions**

There are no exemptions

<sup>[1]</sup> This should also be read in conjunction with the University's Qualifications Framework

<sup>[2]</sup> See section on 'Exemptions'

### **Programme Overview**

The programme is designed to enable you to become a professional Biologist with a range of specialist routes within the overall framework. The single honours Biology degree gives you core knowledge and skills in topics such as microbiology, ecology, epidemiology, animal behaviour, medical biology, plant biology and food studies. This particularly suits students that have a broad interest in Biology and wish to maintain this throughout their degree, perhaps with an interest in teaching or increasing the range of employment open to them on graduation.

Our specialist pathway in **Conservation Biology** offers a more focussed programme of study enabling you to develop your skills in applied aspects of wildlife conservation. You will study topics related to biodiversity, ecology and environmental management. At final year level you will learn more about animal behaviour and environmental practices. Our degree will stand you in good stead for a practical focussed career in environmental/ecology consultancy or research or further study in conservation.

The specialist pathway in **Human Biology** has a particular emphasis on health, well-being and nutrition. In addition to the compulsory modules you have the opportunity to investigate physiology, regulation and nutrition alongside disease mechanisms and microbiology, in the second year. At final year level you will find out more on the medical aspects of human biology, as how diseases are diagnosed and treated, and the importance of nutrition and exercise in maintaining human health.

The specialist pathway in **Microbiology** has a particular emphasis on understanding the microbial world and its applications to health, the environment and biotechnology. You will begin with an introduction to microbiology covering bacteria, viruses, fungi and algae and some protozoa, learning about their structure and function. In the second year you will focus more on the applied aspects of the topic, including antibiotic resistance, bioremediation, environmental and human microbiota, and biotechnology. At final year level you will find out more on the medical aspects of Microbiology and its importance in the food industry.

### **Programme Aims**

The aims for the Biology Programme are to:

- 1. Deliver a challenging and motivating scientific programme, via a broad-based course, with the option of focussing on specialised areas particularly Microbiology, Conservation Biology and Human Biology
- 2. Provide students with appropriate biological knowledge, understanding and practical skills at local, national and global level
- 3. Prepare students for employment (managerial/professional and subject specific) and post-graduate study including ethical standards and professional codes of conduct
- 4. Encourage informed understanding and awareness of the biological world
- 5. Enable students to become independent problem solvers in a word of biological challenges
- 6. Improve career opportunities by encouraging engagement with external organisations to include volunteer and placement work.

# **Programme Intended Learning Outcomes (ILOs)**

## A Subject-Specific Skills and Knowledge

	Programme Intended Learning Outcomes (ILOs)	On Achieving Level 5	On Achieving Level 4
	On Achieving Level 6		
A1	Competence in a broad range of appropriate practical techniques and skills relevant to the biosciences	Implementation of a broad range of appropriate practical techniques and skills relevant to the biosciences	An understanding of a broad range of appropriate practical techniques and skills relevant to the biosciences
A2	The ability to demonstrate a secure and accurate understanding of the explanation of biological phenomena at a variety of levels (from molecular to ecological systems) and explain the relationship of evolutionary theory to your area of study	The ability to demonstrate a secure and accurate understanding of the explanation of biological phenomena at a variety of levels (from molecular to ecological systems) and explain the relationship of evolutionary theory to your area of study	An understanding of the explanation of biological phenomena at a variety of levels (from molecular to ecological systems) and the importance of evolutionary theory
АЗ	The ability to access and evaluate bioscience information from a variety of sources and to communicate the principles both orally and in writing in a way that is organised and topical, and recognises the limits of current hypotheses	The ability to access and evaluate bioscience information from a variety of sources and to communicate the principles both orally and in writing in a way that is organised and topical, and recognises the limits of current hypotheses	The ability to use bioscience information from a variety of sources and to communicate the principles both orally and in writing
A4	Construct reasoned arguments to support your position on the ethical and social impact of advances in the biosciences including professional integrity and standards	Construct reasoned arguments to support your position on the ethical and social impact of advances in the biosciences including professional integrity and standards	Construct arguments to support your position on the ethical and social impact of advances in the biosciences
A5	The ability to record data accurately, and to carry out manipulation of data (including qualitative data and statistical analysis, when appropriate)	The ability to record data accurately, and to carry out manipulation of data and statistical analysis	The ability to record data accurately, and to carry out data analysis of simple datasets
A6	The ability to access bioscience databases and use appropriate selection criteria to mine, manipulate and interpret data	The ability to access bioscience databases and manipulate and interpret data	The ability to access bioscience databases and interpret relevant information

A	7 An awareness of professional standards,	An awareness of appropriate standards	An awareness of
	including Good Laboratory Practice for	for data collection, recording and	appropriate standards and
	data collection, recording and	interpretation	behaviour to ensure safe
	interpretation		working practices

### **B Cognitive and Intellectual Skills**

	Programme Intended Learning Outcomes (ILOs) On Achieving Level 6	On Achieving Level 5	On Achieving Level 4
B1	The ability to demonstrate well developed strategies for updating, maintaining and enhancing your knowledge of the biosciences, including cross-disciplinary awareness	The ability to demonstrate well developed strategies for updating, maintaining and enhancing your knowledge of the biosciences, including cross-disciplinary awareness	The ability to demonstrate strategies for updating, maintaining and enhancing your knowledge of the biosciences
B2	The ability to plan, execute and present an independent piece of work, in which qualities such as time management, problem solving and independence are evident, as well as interpretation and critical awareness of the quality of evidence	The ability to plan, execute and present an independent piece of work, in which qualities such as time management, problem solving and independence are evident, as well as interpretation and critical awareness of the quality of evidence	The ability to plan, execute and present an independent piece of work, in which qualities such as time management, problem solving and independence are evident
В3	Apply relevant advanced numerical and data analysis skills to biological data	Apply relevant advanced numerical skills to biological data	Apply relevant numerical skills to biological data
B4	Communicate relatively complex scientific theories and themes to peers and non-scientists	Communicate scientific theories and themes to peers and non-scientists	Communicate science to peers and non-scientists

### C Skills for Life and Work

	Programme Intended Learning Outcomes (ILOs)	On Achieving Level 5	On Achieving Level 4	
	On Achieving Level 6			
C1	Autonomous learning[3] (including time management) that shows the exercise of initiative and personal responsibility and enables decision-making in complex and unpredictable contexts.	Autonomous learning (including time management) as would be necessary for employment requiring the exercise of personal responsibility and decision-making such that significant responsibility within organisations could be assumed.	Autonomous learning (including time management) as would be necessary for employment requiring the exercise of personal responsibility.	

C2	Team working skills necessary to flourish in the global workplace with an ability both to work in and lead teams effectively.	Team work as would be necessary for employment requiring the exercise of personal responsibility and decision-making for effective work with others such that significant responsibility within organisations could be assumed.	Team work as would be necessary for employment requiring the exercise of personal responsibility for effective work with others.
C3	Communication skills that ensure information, ideas, problems and solutions are communicated effectively and clearly to both specialist and non-specialist audiences.	Communication skills commensurate with the effective communication of information, arguments and analysis in a variety of forms to specialist and non-specialist audiences in which key techniques of the discipline are deployed effectively.	Communication skills that demonstrate an ability to communicate outcomes accurately and reliably and with structured and coherent arguments.
C4	IT skills and digital literacy that demonstrate core competences and are commensurate with an ability to work at the interface of creativity and new technologies.	IT skills and digital literacy that demonstrate the development of existing skills and the acquisition of new competences.	IT skills and digital literacy that provide a platform from which further training can be undertaken to enable development of new skills within a structured and managed environment.

[3] i.e. the ability to review, direct and manage one's own workload

# **Programme content**

This programme comprises the following modules

<u>Key</u>:

Core = C

Required = R

Required\* =  $R^*$ 

Optional = O

Not available for this status = N/A

### Subject offered as single and/or combined award

Biology	Biology				
Level	Code	Title	Credits	Single	Joint
4	BIO4000-20	Biological Techniques	20	С	С
4	BIO4003-20	Ecology and Diversity of Life	20	С	С
4	BIO4201-20	Anatomy and Physiology	20	С	С
4	BIO4100-20	The Microbial World	20	R	
4	BIO4101-20	Introduction to Biochemistry	20	R	
4	BIO4104-20	Communicating Science	20	R	
5	BIO5000-20	Biological Systems	20	С	С
5	BIO5001-20	Biology in Society	20	С	С
5	BIO5008-20	Research Skills for Biology	20	R	0
5	BIO5108-20	Conservation Ecology	20	0	0
5	BIO5005-20	Human Pathophysiology & Nutrition	20	0	0
5	BIO5100-20	Food Analysis	20	0	0
5	BIO5101-20	Human Nutrition	20	0	0
5	BIO5102-20	Biology Work Placement	20	0	0
5	BIO5006-20	Environmental Management	20	0	0
4	BIO5109-20	Microbial Applications and Biotech	20	0	0

5	PSY5107-20	Clinical Psychology	20	0	N/A
5	BMA5100-20	The Marketing Business	20	0	N/A
5	EDU5103-20	Environment and Education	20	0	N/A
5	PUB5103-20	Science Journalism and Publishing	20	0	N/A
5	PPY5100-120	Professional Placement Year	120	0	0
6	BIO6000-20	Dissertation Planning	20	R	0
6	BIO6001-20	Dissertation Publication	20	R	0
6	BIO6103-20	Animal Behaviour	20	0	R*
6	BIO6104-20	Plants and People	20	0	0
6	BIO6002-20	Environmental Practice	20	0	R*
6	BIO6003-20	Medical Biology	20	0	R*
6	BIO6004-20	Nutrition and Exercise Science		0	0
6	BIO6100-20	Food Safety	20	0	0
6	BIO6101-20	Epidemiology and Public Health	20	0	0
6	BIO6102-20	Wildlife Photography	20	0	N/A
6	BIO6108-20	Investigations in Microbiology	20	0	0
6	BIO6111-20	Marine Biology and Conservation	20	0	N/A
6	EDU6108-20	Learning in Science	20	0	N/A
6	PUB6001-20	Publishing Industry Project	20	0	N/A
6	PSY6107-20	Advanced Topics in Psychology	20	0	0

Joint honours students must take two R\* modules as follows:

- 1. Either Animal Behaviour and Environmental Practice
- 3. Or Animal Behaviour and Medical Biology

### Subject offered with pathways

# N.B. Please note that the Biology pathways are discontinued from September 2023. Students currently enrolled on a pathway will complete their studies in line with the table below.

		Biology			Pathway	
Lev el	Code	Title	Credits	Conservation Biology	Human Biology	Microbiolo gy
4	BIO4000-20	Biological Techniques	20	С	С	С
4	BIO4003-20	Ecology and Diversity of Life	20	С	С	С
4	BIO4201-20	Anatomy and Physiology	20	С	С	С
4	BIO4100-20	The Microbial World	20	С	С	С
4	BIO4101-20	Introduction to Biochemistry	20	С	С	С
4	BIO4104-20	Communicating Science	20	С	С	С
5	BIO5000-20	Biological Systems	20	С	С	С
5	BIO5001-20	Biology in Society	20	С	С	С
5	BIO5008-20	Research Skills in Biology	20	R	R	R
5	BIO5108-20	Conservation Ecology	20	R	N/A	0
5	BIO5005-20	Human Pathophysiology and Nutrition	20	N/A	R	N/A
5	BIO5100-20	Food Analysis	20	0	0	0
5	BIO5101-20	Human Nutrition	20	N/A	R	N/A
5	BIO5102-20	Biology Work Placement	20	0	0	0
5	BIO5006-20	Environmental Management	20	R	0	0
5	BIO5109-20	Microbial Applications and Biotech	20	N/A	N/A	R
5	PSY5107- 20	Clinical Psychology	20	0	0	N/A
5	BMA5100- 20	The Marketing Business	20	0	0	0
5	EDU5103- 20	Environment and Education	20	0	N/A	N/A
5	PUB5103- 20	Science Journalism and Publishing	20	0	0	0
5	PPY5100- 120	Professional Placement Year	120	0	0	0

6	BIO6005-20	Conservation Biology Dissertation Planning	20	R	N/A	N/A
6	BIO6007-20	Human Biology Dissertation Planning	20	N/A	R	N/A
6	BIO6600-20	Microbiology Dissertation Planning	20	N/A	N/A	R
6	BIO6006-20	Conservation Biology Dissertation Publication	20	R	N/A	N/A
6	BIO6008-20	Human Biology Dissertation Publication	20	N/A	R	N/A
6	BIO6601-20	Microbiology Dissertation Publication	20	N/A	N/A	R
6	BIO6608-20	Investigations in Microbiology	20	0	0	R
6	BIO6103-20	Animal Behaviour	20	R	0	N/A
6	BIO6104-20	Plants and People	20	0	0	0
6	BIO6002-20	Environmental Practice	20	R	0	0
6	BIO6003-20	Medical Biology	20	0	R	0
6	BIO6004-20	Nutrition and Exercise Science	20	N/A	R	N/A
6	BIO6100-20	Food Safety	20	N/A	N/A	R
6	BIO6101-20	Epidemiology and Public Health	20	N/A	0	0
6	BIO6102-20	Wildlife Photography	20	0	N/A	N/A
6	BIO6111-20	Marine Biology and Conservation	20	0	N/A	N/A
6	GEO6101- 20	Disaster Risk Reduction	20	0	N/A	N/A
6	EDU6108- 20	Learning in Science	20	0	0	0
6	PUB6001- 20	Publishing Industry Project	20	0	0	0
6	PSY6107- 20	Advanced Topics in Psychology	20	0	0	N/A

### **Assessment methods**

A range of summative assessment tasks will be used to test the Intended Learning Outcomes in each module. These are indicated in the attached assessment map which shows which tasks are used in which modules.

Students will be supported in their development towards summative assessment by appropriate formative exercises.

<u>Please note</u>: if you choose an optional module from outside this programme, you may be required to undertake a summative assessment task that does not appear in the assessment grid here in order to pass that module.

### Work experience and placement opportunities

Biology students are not required to undertake formal work experience or placements as part of their course programme, but we recognise the value of such experience to career development, and provide a range of opportunities for students to engage outside the classroom.

Students that would like to seek a placement experience related to their course have the opportunity to take the Biology Work Placement module in the second year of study. This is a subject focussed module which is well established, popular with students and produces excellent work from students which helps in their preparation for graduate employment. Staff are able to help with securing appropriate employment, through industry and community contacts. The Careers Service are also able to suggest suitable employers in the public and private sector. If students wish to undertake a more general work placement outside the Biology sector there is an Open Module in Work Placement available.

This programme can also be taken as a 'Sandwich' degree, which is studied over 4 years and includes a year-long work placement in a sector of your choice. The placement year is completed between years 2 and 3 of your degree and counts for 120 Level 5 credits. During this time you will be able to utilise knowledge gained as part of your studies in a real work environment to gain 'hands on' experience. The University has a dedicated Careers & Employability team to help you find and prepare for a placement. Following your placement year, you will return to University to complete your final year of study.

#### **Additional Costs Table**

Module Code & Title	Type of Cost	Cost
BIO5108-20 Conservation Ecology	Contribution towards a residential field trip	Approx. £100
EDU5103-20 Environm ent and Education	This module includes the option to enroll onto an additional course: DB S required; transport costs; payment of accredited course fees	Approx. £200
BIO6111-20 Marine Biology and Conservation	Contribution towards a residential field trip	Approx. £100- £150

# **Graduate Attributes**

	Bath Spa Graduates	In Biology, we enable this
1	Will be employable: equipped with the skills necessary to flourish in the global workplace, able to work in and lead teams	By using a variety of teaching, learning and assessment techniques which expose and engage the students with authentic real world scenarios.  Students work collaboratively at all levels with opportunities for group work and are encouraged to undertake work experience and exchange opportunities.
2	Will be able to understand and manage complexity, diversity and change	By introducing our students to topical issues within biology. Students will have to understand and interpret the complex, sometimes changing and often opposing evidence.
3	Will be creative: able to innovate and to solve problems by working across disciplines as professional or artistic practitioners	By developing our students' understanding of creativity and giving them the opportunity for their creative skills to flourish through problem solving and working with others.  Many modules are available which involve collaborative working across disciplines on real-world projects.
4	Will be digitally literate: able to work at the interface of creativity and technology	Providing a curriculum which includes regular and diverse interaction with digital technology that develops skills and deep understanding. We provide opportunities for students to write for different audiences with different needs and interests using different digital communication techniques.  Biology students are taught the digital literacy skills that are required to conduct the activities (writing scientific papers, blogging, creating multimedia presentations, online discussion fora etc) that form part of the daily university life.  Students will also learn appropriate data analysis techniques throughout the programme.

5 Will be By encouraging students to take opportunities to study or work abroad (e.g. BSU's internationally Global Citizenship Award, Operation Wallacea, Wildlife Photography module), and by networked: using our internationally relevant curriculum to build their confidence to do so. either by We endeavour to ensure our graduates are culturally aware and are able to connect studying abroad with communities both here in the UK, Europe and abroad and make a valuable for part of the contribution to the world economy. We equip our students with the knowledge and their skills to work in the UK, Europe and abroad. programme, or studying alongside students from overseas Will be creative 6 By giving students opportunities to think creatively and imaginatively in their thinkers, doers interpretation and presentation of scientific information. As part of the curriculum our and makers students explore and reflect on different methods of solving problems and generating ideas. Students will be equipped with a toolkit of strategies and will be able to select and use them to deliver results in appropriate contexts. The programme has developed assessments which mimic what happens in the workplace. This provides students with a portfolio of work which they can show to potential employers. 7 Will be critical By setting assessments that allow students to develop their creative skills within the thinkers: able to context of Biology. Our students will be able to operate in complex and unpredictable express their contexts demanding the selection and application from a wide range of innovative or ideas in written standard techniques. They will be able to work independently to plan and manage and oral form, work. They will also have the ability to be a member of a team and accept and possessing responsibility for determining and achieving personal and/or group outcomes. They information will also have an awareness of the different methods of communication and an ability literacy to choose the most appropriate method for a given situation. Will be ethically By requiring our students to consider ethical issues surrounding their own and others' aware: work, our students on graduation will have the ability to exercise intellectual skills including applying subject knowledge and understanding, to address familiar and prepared for unfamiliar problems and appreciating the need for ethical standards and professional citizenship in a local, national codes of conduct. and global context

### **Modifications**

### Module-level modifications

Code	Title	Nature of modification	Date(s) of approval and approving bodies	Date modification comes into effect
BIO4001- 20	Conservation Biology	Change to assessment	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
BIO6104- 20	Plants and People	Change to assessment	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
GEO400 0work placem- 20	Environment, People and Place	Delete from Single, Major, Joint and Minor and from Human Biology pathway	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
GEO410 1-20	Sustainability in Life and Work	Module deleted	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
OMO610 0-20	Successful Freelancing	Module deleted	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
OMO610 1-20	Leadership and Management	Module deleted	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
BIO4104- 20	Communicating Science	Change to module status	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
BIO6105- 20	Marine Biology	Module deleted	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
PSY6101 -20	Evolutionary Neuroscience and the Origin of the Human Mind	New module	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
PSY6105 -20	Applied Behavioural Psychology	New module	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
BIO6100- 20	Food Safety	Change to module status	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20

BIO4102- 20	Global Food Issues	Change to module status	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
PSY4000 -20	Introduction to comparative and cognitive Neuroscience	New module	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
PSY4001 -20	Introduction to developmental and social psychology	New module	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
PSY6100 -20	Child and Adolescent Neuropsychology	New module	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
PSY6103 -20	Clinical Neuropsychology	Module deleted	03 April 2019, CoLA Learning, Teaching Quality Subcommittee	2019/20
BIO6102- 20	Wildlife Photography	Change to semester of delivery	CoLA Learning, Teaching and Quality Sub-committee, 22 November 2018	2019/20
BIO4102- 20	Global Food Issues	Delete module	Curriculum Committee (fixed Level 4 project) June 2020	2021/22
BIO4103- 20	Food, Nutrition and Health	Delete module	Curriculum Committee (fixed Level 4 project) June 2020	2020/21
GEO400 0-20	Environment, People and Place	Delete module	Curriculum Committee (fixed Level 4 project) June 2020	2020/21
PSY4000 -20	Introduction to comparative and cognitive Neuroscience	Delete module	Curriculum Committee (fixed Level 4 project) June 2020	2020/21
PSY4001 -20	Introduction to developmental and social psychology	Delete module	Curriculum Committee (fixed Level 4 project) June 2020	2020/21
BIO4001- 20	Conservation Biology	Module status change	Curriculum Committee (fixed Level 4 project) June 2020	2020/21
BIO4100- 20	The Microbial World	Module status change	Curriculum Committee (fixed Level 4 project) June 2020	2020/21
BIO4104- 20	Introduction to Biochemistry	Module status change	Curriculum Committee (fixed Level 4 project) June 2020	2020/21
BIO4101- 20	Communicating Science	Module status change	Curriculum Committee (fixed Level 4 project) June 2020	2020/21
BIO5000- 20	Biological Systems	Assessment change	Approved via Chair's action 01 /12/2020	2021/2022
BIO5003- 20	Ecology and Biodiversity	Assessment change	Approved via Chair's action 01 /12/2020	2021/2022

PSY6100 -20	Child and Adolescent Neuropsychology	Assessment change	Approved via Chair's action 01 /12/2020	2021/2022
PSY5102 -20	Abnormal Psychology	Module deletion	Approved via Chair's action 21 /01/2021	2021/22
PSY5107 -20	Clinical Psychology	New module	Approved via Chair's action 21 /01/2021	2021/22
PSY6105 -20	Applied Behavioural Psychology	Module status change	Curriculum Committee December 2020	2021/22
BIO6003- 20	Medical Biology	Module status change	approved Curriculum Committee 15 Dec 2021	2022/23
BIO6101- 20	Epidemiology and Public Health	Module status change	approved Curriculum Committee 15 Dec 2021	2022/23
BIO6100- 20	Food Safety	Module status change	approved Curriculum Committee 15 Dec 2021	2022/23
GEO610 1-20	Disaster Risk Reduction	New Module	approved Curriculum Committee 15 Dec 2021	2022/23
PSY6107 -20	Advanced Topics in Psychology	New Module	SQMC 08 March 2022	2022/23
PSY6101 -20	Evolutionary Neuroscience and the Or igin of the Human Mind	Module deleted	SQMC 08 March 2022	2022/23
PSY6100 -20	Child and Adolescent Neuropsychology	Module deleted	SQMC 08 March 2022	2022/23
PSY5003 -20	Biological and Cognitive Psychology	Module deleted	SQMC 08 March 2022	2022/23
PSY6105 -20	Applied Behavioural Psychology	Module deleted	SQMC 08 March 2022	2022/23
BIO4002- 20	Human Biology	Module deleted	SQMC November 2022	2023/24
BIO4201- 20	Anatomy and Physiology	New Module	SQMC November 2022	2023/24
BIO5000- 20	Biological Systems	Updates to Brief Description, Outline Syllabus and assessments	SQMC November 2023	2024/25

### Programme-level modifications

Nature of modification	Date(s) of approval and approving	Date modification
	bodies	comes into effect

Addition of named pathway: Microbiology	16 April 2019, Programme Approval and Review Sub-committee	2019/20 (for Level 4 modules) 2020/21 (for Level 5 modules) 2021/22 (for Level 6 modules)
BIO4001 Conservation Biology replaced with BIO4003 Ecology & Diversity of Life	Curriculum Committee December 2022	2023/24
New module added: BIO5109-20 Microbial Applications and Biotech	Curriculum Approval Panel December 2023	2024/25
BIO5003-20 Ecology & Biodiversity replaced with BIO5108-20 Conservation Ecology	Curriculum Approval Panel December 2023	2024/25
BIO5004-20 Applied Microbiology deleted	Curriculum Approval Panel December 2023	2024/25
BIO5105-20 Biotechnology deleted	Curriculum Approval Panel December 2023	2024/25

### Attached as appendices:

- 1. Programme structure diagram
- 2. Map of module outcomes to level/programme outcomes
- 3. Assessment map
- 4. Module descriptors

# Appendix 1: Programme Structure Diagram - BSc (Hons) Biology

Single Honours		Joint Honours		
		Level 4		
Semester 1	Semester 2	Semester 1	Semester 2	
Core Modules		Core	Modules	
BIO4000-20 Biological Techniques	BIO4003-20 Ecology and Diversity of Life BIO4201-20 Anatomy and Physiology	BIO4000-20 Biological Techniques	BIO4003-20 Ecology and Diversity of Life BIO4201-20 Anatomy and Physiology	
Require	ed Modules	Require	ed Modules	
BIO4101-20 Introduction to Biochemistry BIO4104-20 Communicating Science	BIO4100-20 The Microbial World	N/A	N/A	
Rule Notes: N/A		<b>Rule Notes:</b> Joint students take the remaining 60 credits from the second subject at Level 4.		
		Level 5		
Core	Modules	Core	Modules	
BIO5000-20 Biological Systems	BIO5001-20 Biology in Society	BIO5000-20 Biological Systems	BIO5001-20 Biology in Society	
Require	ed Modules	Required Modules		
BIO5008-20 Research Skills in Biology	N/A	N/A	N/A	
Optiona	al Modules	Optiona	al Modules	

Single Honours		Joint Honours	
BIO5102-20 Biology Work Placement	BIO5102-20 Biology Work Placement	BIO5102-20 Biology Work Placement	BIO5102-20 Biology Work Placement
BIO5108-20 Conservation Ecology BIO5101-20 Human Nutrition BIO5109-20 Microbial Applications and Biotech BMA5100-20 The Marketing Business	BIO5005-20 Human Pathophysiology and Nutrition  BIO5100-20 Food Analysis  BIO5006-20 Environmental Management  PSY5107-20 Clinical Psychology  BMA5100-20 The Marketing Business  PUB5103-20 Science Journalism and Publishing  EDU5103-20 Environment and	BIO5008-20 Research Skills in Biology BIO5108-20 Conservation Ecology BIO5101-20 Human Nutrition BIO5109-20 Microbial Applications and Biotech	BIO5005-20 Human Pathophysiology and Nutrition BIO5100-20 Food Analysis BIO5006-20 Environmental Management
Rule Notes: N/A	Education		ake 40 credits in each subject. The up of Optional modules from either
	Optional Pro	fessional Placement Year 120 cree	dits
	орионан 110	Level 6	
Require	ed Modules	Require	ed Modules
BIO6000-20 Dissertation Planning	BIO6001-20 Dissertation Publication		
Require	d* Modules	Require	d* Modules
		BIO6002-20 Environmental Practice	BIO6103-20 Animal Behaviour BIO6003-20 Medical Biology
Option	al Modules	Option	al Modules

Single Honours		Joint Honours	
BIO6104-20 Plants and People BIO6002-20 Environmental Practice BIO6004-20 Nutrition and Exercise Science BIO6100-20 Food Safety	BIO6103-20 Animal Behaviour  BIO6003-20 Medical Biology  BIO6101-20 Epidemiology and Public Health  BIO6102-20 Wildlife Photography  BIO6108-20 Investigations in Microbiology  EDU6108-20 Learning in Science	BIO6000-20 Dissertation Planning BIO6104-20 Plants and People BIO6004-20 Nutrition and Exercise Science BIO6100-20 Food Safety	BIO6001-20 Dissertation Publication BIO6101-20 Epidemiology and Public Health BIO6108-20 Investigations in Microbiology PSY6107-20 Advanced Topics in Psychology
Rule Notes:	PUB6001-20 Publishing Industry Project  PSY6107-20 Advanced Topics in Psychology	Rule Notes: Joint students must ta The remaining 80 credits can be m either subject.	ake at least 2 R* modules in Biology. ade up of Optional modules from

### Structure for Biology (Conservation Biology):

Modules in italics are Modules outside the Biology programme

Semester 1	Semester 2			
Level 4 (120 credits core)				
BIO4000-20 Biological Techniques (C)	BIO4003-20 Ecology and Diversity of Life (C)			
BIO4101-20 Introduction to Biochemistry (C)	BIO4002-20 Human Biology (C)			
BIO4104-20 Communicating Science (C)	BIO4100-20 The Microbial World (C)			
Level 5 (100 credits core/required modules)				
BIO5000-20 Biological Systems (C)	BIO5001-20 Biology in Society (C)			
BIO5008-20 Research Skills in Biology (R)	BIO5006-20 Environmental Management (R)			
BIO5108-20 Conservation Ecology (R)	BIO5100-20 Food Analysis (O)			
	BIO5102-20 Biology Work Placement (O)			
	EDU5103-20 Environment and Education (O)			
	PUB5103-20 Science Journalism and Publishing (O)			
	BMA5100-20 The Marketing Business (O)			
	PSY5107-20 Clinical Psychology (O)			
PPY5100-120 Profess	sional Placement Year (O)			
Level 6 (80 credits required modules)				
BIO6005-20 Conservation Biology Dissertation Planning (R)	BIO6006-20 Conservation Biology Dissertation Publication (R)			
BIO6002-20 Environmental Practice (R)	BIO6103-20 Animal Behaviour (R)			
BIO6104-20 Plants and People (O)	BIO6003-20 Medical Biology (O)			
GEO6101-20 Disaster Risk Reduction (O)	BIO6102-20 Wildlife Photography (O)			
	BIO6108-20 Investigations in Microbiology (O)			
	BIO6111-20 Marine Biology and Conservation (O)			
	EDU6108-20 Learning in Science (O)			

### Structure for Biology (Human Biology)

Modules in italics are Modules outside the Biology programme

Semester 1	Semester 2			
Level 4 (120 credits core modules)				
BIO4000-20 Biological Techniques (C)	BIO4003-20 Ecology and Diversity of Life (C)			
BIO4101-20 Introduction to Biochemistry (C)	BIO4002-20 Human Biology (C)			
BIO4104-20 Communicating Science (C)	BIO4100-20 The Microbial World (C)			
Level 5 (80 credits core/required modules)	·			
BIO5000-20 Biological Systems (C)	BIO5001-20 Biology in Society (C)			
BIO5008-20 Research Skills in Biology (R)	BIO5005-20 Human Pathophysiology and Nutrition (R)			
BIO5101-20 Human Nutrition (O)	BIO5100-20 Food Analysis (O)			
BMA5100-20 The Marketing Business (O)	BIO5006-20 Environmental Management (O)			
	BIO5102-20 Biology Work Placement (O)			
	PSY5107-20 Clinical Psychology (O)			
	PUB5103-20 Science Journalism and Publishing (O)			
	BMA5100-20 The Marketing Business (O)			
PPY5100-120 Profess	sional Placement Year (O)			
Level 6 (80 credits required modules)				
BIO6007-20 Human Biology Dissertation Planning (R)	BIO6008-20 Human Biology Dissertation Publication (R)			
BIO6004-20 Nutrition and Exercise Science (R)	BIO6003-20 Medical Biology (R)			
BIO6104-20 Plants and People (O)	BIO6103-20 Animal Behaviour (O)			
BIO6002-20 Environmental Practice (O)	BIO6101-20 Epidemiology and Public Health (O)			
	BIO6108-20 Investigations in Microbiology (O)			
	EDU6108-20 Learning in Science (O)			
	PUB6001-20 Publishing Industry Project (0)			

PSY6107-20 Advanced Topics in Psychology (O
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### Structure for Biology (Microbiology)

Modules in italics are Modules outside the Biology programme

Semester 1	Semester 2
Level 4 (120 credits core modules)	
BIO4000-20 Biological Techniques (C)	BIO4003-20 Ecology and Diversity of Life (C)
BIO4101-20 Introduction to Biochemistry (C)	BIO4002-20 Human Biology (C)
BIO4104-20 Communicating Science (C)	BIO4100-20 The Microbial World (C)
Level 5 (80 credits core/required modules)	
BIO5000-20 Biological Systems (C)	BIO5001-20 Biology in Society (C)
BIO5008-20 Research Skills in Biology (R)	BIO5006-20 Environmental Management (O)
BIO5109-20 Microbial Applications and Biotech (R)	BIO5100-20 Food Analysis (O)
BIO5108-20 Conservation Ecology (O)	BIO5102-20 Biology Work Placement (O)
BMA5100-20 The Marketing Business (O)	BMA5100-20 The Marketing Business (O)
	PUB5103-20 Science Journalism and Publishing (0)
PPY5100-120 Profess	ional Placement Year (O)
Level 6 (80 credits required modules)	
BIO6600-20 Microbiology Dissertation Planning (R)	BIO6601-20 Microbiology Dissertation Publication (R)
BIO6100-20 Food Safety (R)	BIO6108-20 Investigations in Microbiology (R)
BIO6104-20 Plants and People (O)	BIO6003-20 Medical Biology (O)
BIO6002-20 Environmental Practice (O)	BIO6101-20 Epidemiology and Public Health (O)
	EDU6108-20 Learning in Science (O)
	PUB6001-20 Publishing Industry Project (O)

# **Appendix 2: Map of Intended Learning Outcomes**

Level	Module Code	Module Title	Status (C,R,R*,O) [4]															
					Sub		ecific		s and		Cogni	tive and	Intellect	Skills for Life and Work				
				<b>A</b> 1	A2	А3	A4	A5	A6	A7	B1	B2	В3	B4	C1	C2	СЗ	C4
4	BIO4000-20	Biological Techniques	С	х	х	х		х	х	х	х	х	х	х	х	х	х	х
4	BIO4003-20	Ecology and Diversity of Life	С	х		х		х		х	х	х	х			х	х	
4	BIO4201-20	Anatomy and Physiology	С	х		х	х	х		х	х		х		х	х	х	
4	BIO4100-20	The Microbial World	C/R	х	х		х			х		х			х	х	х	
4	BIO4101-20	Introduction to Biochemistry	C/R	х	х			х		х		х				х	х	
4	BIO4104-20	Communicating Science	C/R	х	х	х								х			х	
5	BIO5000-20	Biological Systems	С	х	х	х	х	х		х		х	х			х	х	х
5	BIO5001-20	Biology in Society	С			х	х		х		х			х	х		х	х
5	BIO5008-20	Research Skills in Biology	R/O	х		х	х	х	х	х	х	х	х	х	х	х	х	х
5	BIO5108-20	Conservation Ecology	R/O	х	х	х	х	х		х		х	х	х	х	х		х
5	BIO5006-20	Environmental Management	R/O	х		х	х	х	х			х	х	х	х	х	х	х
5	BIO5005-20	Human Pathophysiology and Nutrition	R/O	х		х	х	х	х	х	х	х	х	х	х	х	х	х
5	BIO5100-20	Food Analysis	0	х		х	х		х	х		х		х	х	х	х	
5	BIO5101-20	Human Nutrition	O/R	х		х	х	х	х	х	х	х		х	х		х	
5	BIO5102-20	Biology Work Placement	0	х						х	х	х			х	х	х	
	BIO5109-20	Microbial Applications and Biotech	0	х	х	х	х		х		х			х			х	х
5	PSY5003-20	Biological and Cognitive Psychology	0	х		х					х				х			х
5	PSY5107-20	Clinical psychology	0	х		х			х		х				х			х
5	BMA5100-20	The Marketing Business	0					х		х					х	х	х	х
5	EDU5103-20	Environment and Education	0			х	х								х		х	
5	PUB5103-20	Science Journalism and Publishing	0			х	х		х					х	х		х	х

5	PPY5100-120	Professional Placement Year	0	х						х	х			х	х	х	х	х
6	BIO6000-20	Dissertation Planning	R/O	х		х	х	х	х		х	х		х	х		х	
6	BIO6001-20	Dissertation Publication	R/O	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х
6	BIO6005-20	Conservation Biology Dissertation Planning	R	х		х	х	х	х		х	х		х	х		х	
6	BIO6006-20	Conservation Biology Dissertation Publication	R	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х
6	BIO6007-20	Human Biology Dissertation Planning	R	х		х	х	х	х		х	х		х	х		х	
6	BIO6008-20	Human Biology Dissertation Publication	R	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х
6	BIO6600-20	Microbiology Dissertation Planning	R	х		х	х	х	х		х	х		х	х		х	
6	BIO6601-20	Microbiology Dissertation Publication	R	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х
6	BIO6103-20	Animal Behaviour	R/O	х	х	х		х	х		х	х	х	х	х		х	х
6	BIO6104-20	Plants and People	0			х	х					х		х	х	х	х	х
6	BIO6002-20	Environmental Practice	R*/O	х		х	х	х	х	х		х			х	х	х	х
6	BIO6003-20	Medical Biology	R/R*/O	х		х	х		х	х	х	х			х		х	
6	BIO6004-20	Nutrition and Exercise Science	R/O	х		х	х			х	х	х			х		х	
6	BIO6100-20	Food Safety	R/O	х		х		х		х		х			х	х	х	х
6	BIO6101-20	Epidemiology and Public Health	R*/O	х		х		х	х		х	х	х	х	х	х	х	
6	BIO6102-20	Wildlife Photography	0	х						х		х		х	х	х	х	х
6	BIO6108-20	Investigations in Microbiology	R/O	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х
6	BIO6111-20	Marine Biology and Conservation	0	х		х	х	х				х	х	х	х		х	
6	GEO6101-20	Disaster Risk Reduction	0	х	х		х	х		х	х	х		х	х	х	х	х
6	EDU6108-20	Learning in Science	0			х	х								х		х	х
6	PUB6001-20	Publishing Industry Project	0			х	х		х			х			х	х	х	
6	PSY6107-20	Advanced Topics in Psychology	0	х	х	х	х		х		х	х	х		х		х	х

<sup>&</sup>lt;sup>[4]</sup> C = Core; R = Required; R\* = Required\*; O = Optional

# **Appendix 3: Map of Summative Assessment Tasks by Module**

Le	Module	Module Title	Status (C,R,									Assessm	ent method	d					
vel	Code		R*,O) <sup>[5]</sup>		Coursework Practical														
															Examination				
				Scientific paper	Re port	Es say	Re view	Prop osal	Disser tation	Port folio	Practical report	Practical project	Practica I skills	Dietary analysis	Data analysis	Presen tation	Written examination	In-class test (unseen)	
4	BIO400 0-20	Biological Techniques	С	1x													1x		
4	BIO400 3-20	Ecology and Diversity of Life	С							1x						1x			
4	BIO420 1-20	Anatomy and Physiology	С																
4	BIO410 0-20	The Microbial World	C/R				1x						1x						
4	BIO410 1-20	Introduction to Biochemistry	C/R								1x							1x	
4	BIO410 4-20	Communicating Science	C/R	1x			1x												
5	BIO500 0-20	Biological Systems	С	1x						1x									
5	BIO500 1-20	Biology in Society	С													1x	1x		
5	BIO500 8-20	Research Skills in Biology	R/O								1x					1x			
5	BIO510 8-20	Conservation Ecology	R/O							1x						1x			
5	BIO500 6-20	Environmental Management	R/O													1x			
5	BIO500 5-20	Human Pathophysiology and Nutrition	R/O												1x		1x		

5	BIO510 0-20	Food Analysis	0	1x										1x	
5	BIO510 1-20	Human Nutrition	O/R								1x				1x
5	BIO510 2-20	Biology Work Placement	0		1x							1 x			
5	BIO510 9-20	Microbial Applications and Biotech	0			1x							1x		
5	PSY510 7-20	Clinical Psychology	0							1x				1x	
5	BMA51 00-20	The Marketing Business	0		1x							1x			
5	EDU51 03-20	Environment and Education	0						1x			1x			
5	PUB51 03-20	Science Journalism and Publishing	0		1x	1x									
5	PPY510 0-120	Professional Placement Year	0				1x		1x						
6	BIO600 0-20	Dissertation Planning	R/O			1x	1x								
6	BIO600 1-20	Dissertation Publication	R/O					1x							
6	BIO600 5-20	Conservation Biology Dissertation Planning	R			1x	1x								
6	BIO600 6-20	Conservation Biology Dissertation Publication	R					1x				1x			
6	BIO600 7-20	Human Biology Dissertation Planning	R			1x	1x								
6	BIO600 8-20	Human Biology Dissertation Publication	R					1x				1x			
6	BIO660 0-20	Microbiology Dissertation Planning	R			1x	1x								
6	BIO660 1-20	Microbiology Dissertation Publication	R					1x				1x			
6	BIO610 3-20	Animal Behaviour	R/O		1x									1x	

6	BIO610 4-20	Plants and People	0			1x							1x		
6	BIO600 2-20	Environmental Practice	R*/O	1x									1x		
6	BIO600 3-20	Medical Biology	R/R*/O							1x	1x				
6	BIO600 4-20	Nutrition and Exercise Science	R/O	1x										1x	
6	BIO610 0-20	Food Safety	R/O	1x					1x						
6	BIO610 1-20	Epidemiology and Public Health	R*/O	1x									1x		
6	BIO610 2-20	Wildlife Photography	0	1x									1x		
6	BIO610 8-20	Investigations in Microbiology	R/O			1x		1x							
6	BIO611 1-20	Marine Biology and Conservation	0		1x				1x						
6	GEO61 01-20	Disaster Risk Reduction	0	1x					1x						
6	EDU61 08-20	Learning in Science	0	1x									1x		
6	PUB60 01-20	Publishing Industry Project	0	1x											
6	PSY610 7-20	Advanced Topics in Psychology	0	1x										1x	

 $<sup>^{[5]}</sup>$  C = Core; R = Required (ie required for this route); R\* = Required\*; O = Optional