## Department of Biological Sciences

## About the department

The Department of Biological Sciences offers an exciting range of single honours degree programmes in organismal and molecular biosciences. All our modules are taught by specialist staff with high professional standards and international reputations. We take great pride in our approachability, friendliness and the support that we offer our students. In the National Student Survey 2020, the Department received a satisfaction rating of 100% from final year biology students.

## **Entry requirements**

The modules listed below are open to all Study Abroad and International Exchange students, subject to any required previous knowledge or qualifications, as stated below. Suitability to study the modules will be assessed by the Department on a case-by-case basis.

Each full module is 15 credits and is taught in either the Autumn Term (September) or the Spring Term (January) as stated below.

Module codes that end in V are for students visiting for Autumn Term only and will be assessed with the final exam held at the end of the Autumn Term (December). Other modules are assessed with the final exam held in January (for Autumn Term modules) or in the Summer Term (April-May, for Spring Term modules).

The information contained in the module outlines on the following pages is correct at the time of publication but may be subject to change as part of our policy of continuous improvement and development.





Module number	Module title	Run time	UK Credits	Link to syllabus
BS1031	Chemistry of Life	UG Autumn Term	15.00	Syllabus information  A-level (or equivalent) knowledge of science (maths, physics, chemistry or biology) is expected.
BS1031V	Chemistry of Life	UG Autumn Term	15.00	Syllabus information  A-level (or equivalent) knowledge of science (maths, physics, chemistry or biology) is expected.
BS1032	Fundamental Biochemistry	UG Spring Term	15.00	Syllabus information  A-level (or equivalent) knowledge of science (maths, physics, chemistry or biology) is expected.
BS1041	Biology in a Changing World	UG Spring Term	15.00	Syllabus information A-level (or equivalent) knowledge of science (biology or geography) is expected.
BS1042	Vertebrate Evolution and Diversity	UG Spring Term	15.00	<u>Syllabus information</u> A-level (or equivalent) knowledge of science (biology or geography) is expected.
BS1043	Green Planet: Plants and Our Future	UG Spring Term	15.00	Syllabus information A-level (or equivalent) knowledge of science (biology or geography) is expected.
BS1051	Ecology and Conservation	UG Autumn Term	15.00	Syllabus information A-level (or equivalent) knowledge of science (biology or geography) is expected.
BS1051V	Ecology and Conservation	UG Autumn Term	15.00	Syllabus information A-level (or equivalent) knowledge of science (biology or geography) is expected.





Module number	Module title	Run time	UK Credits	Link to syllabus
BS1052	Biomes and Ecosystems	UG Autumn Term	15.00	Syllabus information  A-level (or equivalent) knowledge of science (biology or geography) is expected.
BS1052V	Biomes and Ecosystems	UG Autumn Term	15.00	Syllabus information A-level (or equivalent) knowledge of science (biology or geography) is expected.
BS1061	Introductory Animal Physiology	UG Spring Term	15.00	Syllabus information A-level (or equivalent) knowledge of science (maths, physics, chemistry or biology) is expected.
BS1062	Introduction to Human Physiology in Health and Disease	UG Spring Term	15.00	Syllabus information A-level (or equivalent) knowledge of science (maths, physics, chemistry or biology) is expected.
BS1071	Cell Biology and the Origin of Life	UG Autumn Term	15.00	Syllabus information A-level (or equivalent) knowledge of science (maths, physics, chemistry or biology) is expected.
BS1071V	Cell Biology and The Origin of Life	UG Autumn Term	15.00	Syllabus information A-level (or equivalent) knowledge of science (maths, physics, chemistry or biology) is expected.
BS1072	Genetics	UG Autumn Term	15.00	Syllabus information  A-level (or equivalent) knowledge of science (maths, physics, chemistry or biology) is expected.
BS1072V	Genetics	UG Autumn Term	15.00	Syllabus information A-level (or equivalent) knowledge of science (maths, physics, chemistry or biology) is expected.
BS1091	Protein Biochemistry and Enzymology	UG Spring Term	15.00	Syllabus information A-level (or equivalent) knowledge of science (maths, physics, chemistry or biology) is expected.





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BS2005	Microbiology	UG Spring Term	15.00	Syllabus information This is a second-year module (i.e. intermediate level) and some prior knowledge of cell biology and genetics is expected.
BS2010	Invertebrate Biology: Structure, Behaviour and Evolution	UG Autumn Term	15.00	Syllabus information This is a second-year module (i.e. intermediate level) and some prior knowledge of cell biology and genetics is expected.
BS2010V	Invertebrate Biology: Structure, Behaviour and Evolution	UG Autumn Term	15.00	Syllabus information This is a second-year module (i.e. intermediate level) and some prior knowledge of cell biology and genetics is expected.
BS2020	Food Security, Sustainability and Green Biotechnology	UG Spring Term	15.00	Syllabus information This is a second-year module (i.e. intermediate level) and some prior knowledge of cell biology and genetics is expected.
BS2040	Cell Dynamics: Division and Movement	UG Spring Term	15.00	Syllabus information This is a second-year module (i.e. intermediate level) and some prior knowledge of cell biology and genetics is expected.
BS2050	Human Physiology in Health and Disease (II)	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of physiology is expected.
BS2050V	Human Physiology in Health and Disease (II)	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of physiology is expected.





Module number	Module title	Run time	UK Credits	Link to syllabus
BS2060	Developmental Biology	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of cell biology and genetics is expected.
BS2060V	Developmental Biology	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of cell biology and genetics is expected.
BS2090	Plant Biotic Interactions and Ecological Networks	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of ecology is expected.
BS2090V	Plant Biotic Interactions and Ecological Networks	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of ecology is expected.
BS2120	Biological Data Analysis and Interpretation	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some fundamental background in biology and maths is expected.
BS2120V	Biological Data Analysis and Interpretation	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some fundamental background in biology and maths is expected.
BS2140	Animal Behaviour	UG Spring Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some fundamental background in biology is expected.





Module number	Module title	Run time	UK Credits	Link to syllabus
BS2150	Applications Of Molecular Genetics In Biology	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of genetics is expected.
BS2150V	Applications Of Molecular Genetics In Biology	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of genetics is expected.
BS2160	Evolution	UG Spring Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some fundamental background in biology and maths is expected.
BS2510	Bioenergetics and Metabolism	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of biochemistry is expected.
BS2510V	Bioenergetics and Metabolism	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of biochemistry is expected.
BS2520	Protein Structure and Function	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of biochemistry is expected.
BS2520V	Protein Structure and Function	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of biochemistry is expected.





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BS2530	Molecular Biology	UG Spring Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of genetics is expected.
BS2540	Immunology	UG Spring Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of genetics and cell biology is expected.
BS2550	Neuronal and Cellular Signalling	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of cell biology and biochemistry is expected.
BS2550V	Neuronal & Cellular Signalling	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of cell biology and biochemistry is expected.
BS2560	Pharmacology and Toxicology	UG Spring Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of physiology and biochemistry is expected.
BS2570	Physical Biochemistry for Life Scientists	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of biochemistry is expected.
BS2570V	Physical Biochemistry for Life Scientists	UG Autumn Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of biochemistry is expected.





Module number	Module title	Run time	UK Credits	Link to syllabus
BS2580	Natural Product Biochemistry and Sustainability	UG Spring Term	15.00	Syllabus information This is a second year module (i.e. intermediate level) and some prior knowledge of biochemistry is expected.
BS3030	Biology of Parasitic Diseases	UG Autumn Term	15.00	Syllabus information This is a third year module (i.e. advanced level) and prior knowledge of molecular biology and microbiology is required.
BS3030V	Biology of Parasitic Diseases	UG Autumn Term	15.00	Syllabus information This is a third year module (i.e. advanced level) and prior knowledge of molecular biology and microbiology is required.
BS3060	Conservation Science	UG Spring Term	15.00	<u>Syllabus information</u> This is a third year module (i.e. advanced level) and prior knowledge of ecology is required.
BS3120	Population and Community Ecology	UG Autumn Term	15.00	<u>Syllabus information</u> This is a third year module (i.e. advanced level) and prior knowledge of ecology is required.
BS3120V	Population and Community Ecology	UG Autumn Term	15.00	Syllabus information This is a third year module (i.e. advanced level) and prior knowledge of ecology is required.





Module number	Module title	Run time	UK Credits	Link to syllabus
BS3180	Marine Ecology and Biodiversity	UG Spring Term	15.00	Syllabus information This is a third year module (i.e. advanced level) and prior knowledge of ecology is required.
BS3190	Climate Change: Plants and the Environment	UG Spring Term	15.00	<u>Syllabus information</u> This is a third year module (i.e. advanced level). Prior knowledge of plant science is required.
BS3210	Evolutionary Ecology of Vertebrates	UG Spring Term	15.00	Syllabus information This is a third year module (i.e. advanced level). Prior knowledge of ecology and evolution is required.
BS3220	Extreme Animal Physiology	UG Autumn Term	15.00	Syllabus information This is a third year module (i.e. advanced level) and prior knowledge of animal behaviour or animal physiology is required.
BS3220V	Extreme Animal Physiology	UG Autumn Term	15.00	Syllabus information This is a third year module (i.e. advanced level) and prior knowledge of animal behaviour or animal physiology is required.
BS3230	Circadian Biology	UG Autumn Term	15.00	Syllabus information This is a third-year module (i.e. advanced level) and prior knowledge of genetics and cell biology is required.
BS3230V	Circadian Biology	UG Autumn Term	15.00	Syllabus information This is a third-year module (i.e. advanced level) and prior knowledge of genetics and cell biology is required.
BS3240	Evolutionary Medicine	UG Spring Term	15.00	Syllabus information This is a third-year module (i.e. advanced level) and prior knowledge of genetics is required.





Module number	Module title	Run time	UK Credits	Link to syllabus
BS3410	Biotechnology	UG Autumn Term	15.00	Syllabus information This is a third-year module (i.e. advanced level) and prior knowledge of genetics and cell biology is required.
BS3410V	Biotechnology	UG Autumn Term	15.00	<u>Syllabus information</u> This is a third-year module (i.e. advanced level) and prior knowledge of genetics and cell biology is required.
BS3420	Nutrition and Medical Biochemistry	UG Spring Term	15.00	<u>Syllabus information</u> This is a third-year module (i.e. advanced level).Prior knowledge of biochemistry is required.
BS3510	Molecular and Medical Microbiology	UG Autumn Term	15.00	<u>Syllabus information</u> This is a third-year course (i.e. advanced level). Prior knowledge of cell biology, microbiology and immunology is required.
BS3510V	Molecular and Medical Microbiology	UG Autumn Term	15.00	Syllabus information This is a third-year course (i.e. advanced level). Prior knowledge of cell biology, microbiology and immunology is required.
BS3530	Applications of Genetic Engineering in Health and Disease	UG Autumn Term	15.00	Syllabus information This is a third-year module (i.e. advanced level) and prior knowledge of genetics and molecular biology is required.
BS <sub>353</sub> oV	Applications of Genetic Engineering in Health and Disease	UG Autumn Term	15.00	Syllabus information This is a third-year module (i.e. advanced level) and prior knowledge of genetics and molecular biology is required.





Module number	Module title	Run time	UK Credits	Link to syllabus
BS <sub>354</sub> 0	Cell and Molecular Biology of Cancer	UG Spring Term	15.00	Syllabus information This is a third-year module (i.e. advanced level) and prior knowledge of cell biology and molecular biology is required.
BS3560	Functional Genomics, Proteomics and Bioinformatics	UG Spring Term	15.00	<u>Syllabus information</u> This is a third-year module (i.e. advanced level); prior knowledge of molecular biology is required.
BS <sub>357</sub> 0	Human Embryology	UG Autumn Term	15.00	<u>Syllabus information</u> This is a third-year module (i.e. advanced level) and prior knowledge of physiology or developmental biology is required.
BS3570V	Human Embryology	UG Autumn Term	15.00	Syllabus information This is a third-year module (i.e. advanced level) and prior knowledge of physiology or developmental biology is required.
BS3580	Cell And Molecular Neuroscience	UG Spring Term	15.00	<u>Syllabus information</u> This is a third-year module (i.e. advanced level); prior knowledge of neuronal signalling is required.
BS3590	Molecular Basis of Inherited Disease	UG Autumn Term	15.00	Syllabus information This is a third-year module (i.e. advanced level) and prior knowledge of genetics and molecular biology is required.
BS <sub>359</sub> oV	Molecular Basis of Inherited Disease	UG Autumn Term	15.00	Syllabus information This is a third-year module (i.e. advanced level) and prior knowledge of genetics and molecular biology is required.



