

# 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 in the module outlines below.

Each full module is 15 credits and starts in either the Autumn Term (September) or the Spring Term (January).

Module codes that end in V will be assessed with the final exam held at the end of the Autumn Term (September-December) or in January (tbc). Other modules are assessed with the final exam held in the Summer Term (April-May).

*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.*



[royalholloway.ac.uk/Biological Sciences](https://royalholloway.ac.uk/Biological_Sciences)



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## Module options for visiting students

Module code	Module name	UK Credits	Start date	Module description/pre-requisites
BS1031V	Chemistry of Life	15	September 2021	<a href="#">Module description.</a> This is a first year module (i.e. beginner level). Some background in science (maths, physics, chemistry or biology) is expected.
BS1032	Fundamental Biochemistry	15	January 2022	<a href="#">Module description.</a> This is a first year module (i.e. beginner level). Some background in science (maths, physics, chemistry or biology) is expected.
BS1041V	Biology in a Changing World	15	September 2021	<a href="#">Module description.</a> This is a first year module (i.e. beginner level). Some background in science (maths, physics, chemistry or biology) is expected.
BS1042	Vertebrate Evolution and Diversity	15	January 2022	<a href="#">Module description.</a> This is a first year module (i.e. beginner level). Some background in science (maths, physics, chemistry or biology) is expected.
BS1043	Green World: Plant Evolution, Form and Function	15	January 2022	<a href="#">Module description.</a> This is a first year module (i.e. beginner level). Some background in science (maths, physics, chemistry or biology) is expected.
BS1051V	Ecology and Conservation	15	September 2021	<a href="#">Module description.</a> This is a first year module (i.e. beginner level). Some background in science (maths, physics, chemistry or biology) is expected.
BS1052	Biomes and Ecosystems	15	January 2022	<a href="#">Module description.</a> This is a first year module (i.e. beginner level). Some background in science (maths, physics, chemistry or biology) is expected.



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Module code	Module name	Credits	Start date	Module description/pre-requisites
BS1061	Introductory Animal Physiology	15	January 2022	<a href="#">Module description.</a> This is a first year module (i.e. beginner level). Some background in science (maths, physics, chemistry or biology) is expected.
BS1062	Introduction to Human Physiology in Health and Disease	15	January 2022	<a href="#">Module description.</a> This is a first year module (i.e. beginner level). Some background in science (maths, physics, chemistry or biology) is expected.
BS1071V	Cell Biology and the Origin of Life	15	September 2021	<a href="#">Module description.</a> This is a first year module (i.e. beginner level). Some background in science (maths, physics, chemistry or biology) is expected.
BS1072V	Genetics	15	September 2021	<a href="#">Module description.</a> This is a first year module (i.e. beginner level). Some background in science (maths, physics, chemistry or biology) is expected.
BS1091	Protein Biochemistry and Enzymology	15	January 2022	<a href="#">Module description.</a> This is a first year module (i.e. beginner level). Some background in science (maths, physics, chemistry or biology) is expected.



## Module options for visiting students

Module code	Module name	Credits	Start date	Module description/pre-requisites
BS2005	Microbiology	15	January 2022	<a href="#">Module description.</a> 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	15	September 2021	<a href="#">Module description.</a> This is a second year module (i.e. intermediate level) and some prior knowledge of cell biology and genetics is expected.
BS2020	Plant Life: From genes to environment	15	January 2022	<a href="#">Module description.</a> 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	15	January 2022	<a href="#">Module description.</a> This is a second year module (i.e. intermediate level) and some prior knowledge of cell biology and genetics is expected.
BS2050V	Human Physiology in Health and Disease II	15	September 2021	<a href="#">Module description.</a> This is a second year module (i.e. intermediate level) and some prior knowledge of physiology is expected.
BS2060V	Developmental Biology	15	September 2021	<a href="#">Module description.</a> This is a second year module (i.e. intermediate level) and some prior knowledge of cell biology and genetics is expected.
BS2090	Insects, Plants and Fungi: Ecology and Applications	15	January 2022	<a href="#">Module description.</a> This is a second year module (i.e. intermediate level) and some prior knowledge of ecology is expected.



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Module code	Module name	Credits	Start date	Module description/pre-requisites
BS2120V	Biological Data Analysis and Interpretation	15	September 2021	<a href="#">Module description</a> This is a second year module (i.e. intermediate level) and some fundamental background in biology and maths is expected.
BS2140	Animal Behaviour	15	January 2022	<a href="#">Module description</a> This is a second year module (i.e. intermediate level) and some fundamental background in biology is expected.
BS2150V	Applications of Molecular Genetics in Biology	15	September 2021	<a href="#">Module description</a> This is a second year module (i.e. intermediate level) and some prior knowledge of genetics is expected.
BS2160	Evolution	15	January 2022	<a href="#">Module description</a> This is a second year module (i.e. intermediate level) and some fundamental background in biology and maths is expected.
BS2510V	Bioenergetics and Metabolism	15	September 2021	<a href="#">Module description</a> This is a second year module (i.e. intermediate level) and some prior knowledge of biochemistry is expected.
BS2520V	Protein Structure and Function	15	September 2021	<a href="#">Module description</a> This is a second year module (i.e. intermediate level) and some prior knowledge of biochemistry is expected.



## Module options for visiting students

Module code	Module name	Credits	Start date	Module description/pre-requisites
BS2530	Molecular Biology	15	January 2022	<a href="#">Module description</a> This is a second year module (i.e. intermediate level) and some prior knowledge of genetics is expected.
BS2540	Molecular and Cellular Immunology	15	January 2022	<a href="#">Module description</a> This is a second year module (i.e. intermediate level) and some prior knowledge of genetics and cell biology is expected.
BS2550V	Neuronal and Cellular Signalling	15	September 2021	<a href="#">Module description</a> 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	15	January 2022	<a href="#">Module description.</a> This is a second year module (i.e. intermediate level) and some prior knowledge of physiology and biochemistry is expected.
BS2570V	Physical Biochemistry for Life Scientists	15	September 2021	<a href="#">Module description.</a> This is a second year module (i.e. intermediate level) and some prior knowledge of biochemistry is expected.
BS2580	Natural Product Biochemistry and Sustainability	15	January 2022	<a href="#">Module description.</a> This is a second year module (i.e. intermediate level) and some prior knowledge of biochemistry is expected.



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Module code	Module name	Credits	Start date	Module description/pre-requisites
BS3030V	Biology of Parasitic Diseases	15	September 2021	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of molecular biology and microbiology is required.
BS3060	Conservation Science	15	January 2022	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of ecology is required.
BS3090V	Entomology: Pure and Applied	15	September 2021	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of some insect biology is required.
BS3120V	Population and Community Ecology	15	September 2021	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of ecology is required.
BS3160	Behavioural Ecology	15	September 2021	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of animal behaviour is required.



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Module code	Module name	Credits	Start date	Module description/pre-requisites
BS3180	Marine Ecology and Biodiversity	15	January 2022	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of ecology is required.
BS3190	Climate Change: Plants and the Environment	15	January 2022	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of plant science is required.
BS3210	Evolutionary Ecology in Vertebrates	15	September 2021	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of animal behaviour or animal physiology is required
BS3220	Extreme Animal Physiology	15	September 2021	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of animal behaviour or animal physiology is required.
BS3420	Nutrition and Medical Biochemistry	15	January 2022	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of biochemistry is required.





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Module code	Module name	Credits	Start date	Module description/pre-requisites
BS3510V	Molecular and Medical Microbiology	15	September 2021	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year course (i.e. advanced level) and prior knowledge of cell biology, microbiology and immunology is required.
BS3520V	Seed Biology	15	September 2021	<a href="#">Module description.</a> Suitability to study this module will be assessed on a case-by-case basis. This is a third year course (i.e. advanced level). Prior knowledge of plant science is required.
BS3530V	Applications of Genetic Engineering in Health and Disease	15	September 2021	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of genetics and molecular biology is required.
BS3540	Cell and Molecular Biology of Cancer	15	January 2022	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. 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, Bioinformatics	15	January 2022	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of molecular biology is required.



## Module options for visiting students

Module code	Module name	Credits	Start date	Module description/pre-requisites
BS3570V	Human Embryology	15	September 2021	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. 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	15	January 2022	<a href="#">Module description.</a> Suitability to study this module will be assessed by the Department on a case-by-case basis. This is a third year module (i.e. advanced level) and prior knowledge of neuronal signalling is required.

