University of Glasgow | School of Life Sciences

Biology

Undergraduate Study

One of the world's **top 1%** universities

Come and visit us

Open days and student visits

www.glasgow.ac.uk/visit

We offer many opportunities for you to visit us and find out about the University.

- **Open days:** If you're interested in visiting the University before you apply for a specific programme, we'd be happy to welcome you to one of our Open Days held in June, September and October.
- **Applicants' Visit Day:** Once you have applied to and received an offer from the University, you will get another chance to visit us on our Applicants' Visit Day in March.
- **Afternoon visits:** If you can't make either of the above we will be running three afternoon visits throughout the course of the year.
- **Plan your own visit:** You are welcome to visit the University at a time that suits you, to gather information and see the sights of our beautiful campus in your own time.

How to apply

www.ucas.com

You must apply through the Universities & Colleges Admissions Services (UCAS), tel: **0871 468 0468** or visit their website.

The Glasgow experience

The University of Glasgow is one of the world's top universities. Since opening our doors over 550 years ago, we've dedicated our time to inspiring great minds throughout history, from the father of economics, Adam Smith, to the pioneer of television, John Logie Baird.

Here are just a few reasons why our students choose to join us:

- Established in **1451, fourth oldest** University in the English-speaking world
- **23,000** students from **130** countries
- Member of the prestigious **Russell Group** of leading UK research universities
- **1st** in the Russell Group for student satisfaction (International Student Barometer 2012)
- One of the UK's **top 3** best-value universities (Student Value for Money Report 2012)
- In the UK's **top 6** for career prospects (The Guardian University Guide 2013)
- Over **100** clubs and societies, from karate to student theatre
- **Two** student unions with GUU being voted **UK Student Union of the Year**
- One of the best libraries in Europe, open **361** days of the year from 7.15am–2am with **2.5 million** print books and journals.

Find out more about the Glasgow experience:

- Get our students' views on campus life: **www.glasgowgen.net**
- Chat to one of our current students: **www.glasgow.ac.uk/studentnetwork**
- Email us direct: **student.recruitment@glasgow.ac.uk**

Anatomy

Anatomy is the scientific study of the human body in relation to its function. Anatomy is one of our most ancient sciences, but modern anatomy brings a wide variety of contemporary techniques to the study of the human body in health and disease.

92%

Students were satisfied overall

95%

Students in work/ study six months after finishing

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Programme structure

Throughout this programme you will explore the scientific principles and the design of experiments which underlie investigations into

- the form and function of the human body
- the development of a foetus from an embryo
- neuroanatomy.

Traditional viewpoints of applied and clinical anatomy will also be reassessed in the light of current opinion and technology.

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and encouraged to acquire general scientific skills.

You will also study two other subjects of your choice in year 1 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Year 2

In second year, you will be introduced to the study of human physiology, human anatomy, pharmacology and neuroscience. You will also be able to choose from a wide range of other courses.

You will also study one or two other subjects in year 2 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Years 3 and 4

If you progress to Honours (years 3 and 4) you will investigate more fully the methods used by anatomists today, including

- imaging techniques
- light, electron and confocal microscopy
- immunohistochemistry
- tissue culture.

In third year the courses will provide you with basic practical skills and a broad-based knowledge and understanding of the subject. Practical work is very important and you will have the chance for genuine hands-on experience. You will also be encouraged, in a friendly and relaxed atmosphere, to make presentations of your findings, allowing you to develop your skills as a competent communicator.

In fourth year a major component of your studies is an independent research project. You will also study certain topics in depth by taking four five-week Honours option courses, including Clinical applied anatomy, Problems in mammalian reproduction, and Advanced neuroanatomy. As the anatomical sciences represent a fast-moving discipline in which advances are constantly being made, much of the reading material is from original research papers and review articles.

Special feature

You can take Anatomy as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore or the USA.

Career prospects

Our graduates are employed in biomedical laboratories (in both industry and hospitals) and in forensic science. Others have entered the paramedical services, publishing and teaching, while many have continued in postgraduate training, or have become graduate entrants into Medicine or Dentistry.

Degrees and UCAS code

BSc (Hons) (B110) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see **www.glasgow.ac.uk/undergraduate/entryrequirements.**

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see **www.glasgow.ac.uk/undergraduate/degrees/advancedentry**.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - **www.glasgow.ac.uk/gic**.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/anatomy

Biochemistry

Biochemistry combines the study of the biology and chemistry of living organisms to allow us to understand the molecular basis of life. These studies cover lifeforms from bacteria to plants and animals and humans in healthy and diseased states.

95%

Students were satisfied overall

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Degrees and UCAS code

BSc (Hons) (C700) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see www.glasgow.ac.uk/undergraduate/degrees/advancedentry.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - www.glasgow.ac.uk/gic.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/biochemistry

Programme structure

This programme seeks to understand and explain the workings of living organisms at a molecular level. By looking at molecules such as proteins and nucleic acids, you will learn to understand, for example: how cells grow and divide, how nerve cells generate electrical signals, how different tissues communicate with each other, how the immune system helps us fight off infection, and how we balance food intake with our energy needs.

By understanding what happens in healthy individuals, biochemists are ideally placed to design new therapies for diseases such as cancer, diabetes, epilepsy and obesity.

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and encouraged to acquire general scientific skills.

You will also study two other subjects of your choice in year 1 – www.glasgow.ac.uk/ug/aboutdegrees.

Year 2

In your second year, you will be introduced to the study of proteins, nucleic acids, cellular organisation and energy metabolism. You will also choose from a wide range of other courses.

You will also study one or two other subjects in year 2 – www.glasgow.ac.uk/ug/aboutdegrees.

Years 3 and 4

If you progress to Honours (years 3 and 4) you will focus on proteins and nucleic acids as the key molecules in understanding living organisms including viruses, bacteria, plants and animals, including humans. There is a strong emphasis on practical laboratory work, allowing you hands-on experience of major techniques including DNA technology, characterisation of proteins and bioinformatics.

Your fourth year will feature a research project carried out under the supervision of a member of academic staff, a dissertation, and four advanced-level Honours option courses. Projects are usually laboratory-based but can also be business-based and undertaken in conjunction with local biotechnology companies.

Special features

Biochemistry can be taken as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

You will have the opportunity to run your own experiments, collate and analyse your data and report results.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

As a Biochemistry graduate you will be well equipped for a wide variety of careers both inside and outside of science. Many of our graduates choose to work in research and diagnostic laboratories in academic institutions or industry. Many work for pharmaceutical and biotechnology companies. Around half of our graduates go on to further study.

This programme is also suitable for graduate entry into Medicine.

Genetics

Genetics is the study of genes and their action. Genetics knowledge and methodology impact on our understanding of the fundamental mechanisms of life in all living organisms, which in turn help with the diagnosis and treatment of human diseases; crime and forensics; and ecology and conservation.

100%

Students were satisfied overall

90%

Students in work/ study six months after finishing

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Programme structure

Our ability to determine and exploit the entire DNA sequence (genome) of an organism is revolutionising our understanding of the living world. Glasgow is one of the leading centres for teaching and research in genomics in the UK.

The methods used in genetics are being applied throughout biology and impact on such diverse areas as the diagnosis and treatment of human diseases, crime and forensics, and ecology and conservation.

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and encouraged to acquire general scientific skills.

You will also study two other subjects of your choice in year 1 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Year 2

In your second year, you will be introduced to the study of genetics, proteins, nucleic acids and evolutionary biology. You will also be able to choose from a wide range of other courses.

You will also study one or two other subjects in year 2 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Years 3 and 4

If you progress to Honours (third and fourth years) you will develop

- an appreciation of the continuity of genetics
- the classical foundations of molecular genetics
- the application of both to understanding of populations and evolution.

During fourth year you will develop an appreciation of the broad application of genetics within modern biology, biotechnology and medicine. You will choose four advanced Honours option courses to study in greater depth and will also undertake an independent research project with one of the genetics research teams.

Laboratory work and small group teaching are important parts of the Honours programme, allowing you to develop problem-solving, group-working and communication skills.

Special features

You can take Genetics as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

You will undertake extensive laboratory training.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

Our graduates are employed in research or go on to study for postgraduate degrees. Recent graduates have taken posts in hospital or industrial laboratories, in agricultural breeding establishments, teaching, nursing, industrial management and scientific journalism.

Degrees and UCAS code

BSc (Hons) (C400) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see **www.glasgow.ac.uk/undergraduate/degrees/advancedentry**.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - **www.glasgow.ac.uk/gic**.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/genetics

Immunology

Immunology is the study of the body's defence (immune) system, in health and disease. It involves elements from a wide range of basic biological sciences, all focused towards understanding how the cells and molecules of the immune system interact to combat attack from infection.

97%

Students were satisfied overall

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Degrees and UCAS code

BSc (Hons) (C550) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see www.glasgow.ac.uk/undergraduate/degrees/advancedentry.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - www.glasgow.ac.uk/gic.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/immunology

Programme structure

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and encouraged to acquire general scientific skills.

You will also study two other subjects of your choice in year 1 – www.glasgow.ac.uk/ug/aboutdegrees.

Year 2

In your second year, you will be introduced to the study of immunology, and infection and immunity. You will also be able to choose from a wide range of other courses which might include genetics, biochemistry and molecular biology.

You will also study one or two other subjects in year 2 – www.glasgow.ac.uk/ug/aboutdegrees.

Years 3 and 4

If you progress to Honours (years 3 and 4), you will attend lectures in third year which cover the whole field of immunology together with supporting lectures on molecular biology, statistics and data analysis. A series of practical classes is run in parallel with the lectures, which increase familiarity with many current immunological techniques.

In fourth year you will continue your study of immunology in more depth, with the opportunity to plan your own work. You will also undertake a supervised laboratory research project and prepare a dissertation on a separate topic based on a literature survey. The Honours programme provides a full understanding of how the immune system works under both physiological and pathological conditions, covering topics such as infectious disease, vaccination, transplantation, cancer, autoimmune and inflammatory diseases.

Special features

Immunology can be taken as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing full-time research in industry, academia or another approved placement provider in the UK or overseas.

This is one of the few programmes in the UK which offer an Honours degree focusing solely on immunology for two years (years 3 and 4).

Glasgow is one of the major centres for immunology research in the UK.

Our international links

This degree is recognised abroad as an excellent qualification and many of our graduates are now working in top research laboratories and companies throughout the world.

Career prospects

Careers for new graduates, or those with a postgraduate degree, are available in research and teaching in universities and research institutes; in industry, especially pharmaceutical and biotechnology companies; and clinical research and diagnostic work in hospital laboratories. A degree in Immunology can also be a route for entry to a career in other fields such as biochemistry, microbiology, parasitology and molecular biology. There are also opportunities in areas such as teaching, scientific journalism and the civil service.

Many of our graduates will continue to postgraduate study for either a Masters or PhD.

‘The lecturers and teachers are fantastic. They are always on hand to help with any issues and are happy to be contacted with questions.’

Emily McIlwaine, Genetics student

Marine & Freshwater Biology

Marine and freshwater biology is the study of the world's aquatic environments. It is an important field for the future management and conservation of our aquatic resources and the development of many different forms of aquaculture.

98%

Students were satisfied overall

90%

Students in work/ study six months after finishing

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Degrees and UCAS code

BSc (Hons) (C164) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see www.glasgow.ac.uk/undergraduate/degrees/advancedentry.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - www.glasgow.ac.uk/gic.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/marinefreshwaterbiology

Programme structure

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and encouraged to acquire general scientific skills.

You will also study two other subjects of your choice in year 1 – www.glasgow.ac.uk/ug/aboutdegrees.

Year 2

In your second year, you will be introduced to the study of animal diversity and ecology. You will also be able to choose from a wide range of other courses.

You will also study one or two other subjects in year 2 – www.glasgow.ac.uk/ug/aboutdegrees.

Years 3 and 4

If you progress to Honours (third and fourth years) you will study a wide range of topics including

- animal diversity and its classification
- experimental design and quantitative analysis
- ethical aspects of scientific work
- evolution and ecology
- wildlife conservation
- animal behaviour and animal welfare
- environmental management (aquatic pollution)
- aquatic environments.

There are also visits to hatcheries, fish farms and aquaculture projects.

In fourth year you will choose four topics to study in much greater depth. Courses include

- Applying ecology: conservation and management of populations
- Behavioural ecology
- Evolution – pattern and process
- Fisheries and aquaculture
- Freshwater ecology
- Marine ecosystems
- Tropical marine biology.

Another major component of your final year is an independent research project, which can be carried out in the laboratory, or in the field, at home or abroad.

Special feature

You can take Marine & Freshwater Biology as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

Our international links

At Glasgow we have an Exploration Society to help you organise and conduct scientific expeditions to all parts of the world. We can give you guidance on aspects of expedition organisation such as fundraising, safety and first aid. Many zoological-based expeditions are run each year in places such as Ecuador, Bolivia, Gambia, Tobago and Trinidad.

You may have the opportunity to undertake an overseas field course. For example, the tropical marine biology course includes an optional field trip to study the coral reefs and mangroves of Tobago.

Career prospects

Your qualification is an entry point to a wide range of careers that demand the analytical and science-based communications skills developed during this degree programme.

Our graduates move into many careers including conservation, environmental management, fisheries and aquaculture. Many choose to continue on to postgraduate study.

Microbiology

Microbiology is the study of all aspects of microorganisms, which include bacteria, viruses, algae, fungi and protozoa. Some of these are very important as agents of infectious disease and others play an essential role in maintenance of the biosphere.

100%

Students were satisfied overall

95%

Students in work/ study six months after finishing

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Programme structure

You will study the beneficial and detrimental activities of microorganisms, including the industrial, economic and environmental impact of microbiology.

The main emphasis of the programme is directed towards an understanding of the mechanisms by which microbes cause disease and how they can be controlled. You will learn how factors produced by the microbes, such as toxins and adhesins, affect the disease process and study whether these factors might be suitable for inclusion in vaccines, to protect against disease. The mechanisms of microbial resistance to antibiotics and the development of novel antimicrobials are also covered.

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and encouraged to acquire general scientific skills.

You will also study two other subjects of your choice in year 1 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Year 2

In second year, you will be introduced to the study of microorganisms, infection and immunity and practical microbiology. You will also be able to choose from a wide range of other courses.

You will also study one or two other subjects in year 2 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Years 3 and 4

If you progress to Honours (years 3 and 4) you will cover many aspects of microbiology with particular emphasis on infectious diseases and medical microbiology.

In third year you will study the spectrum of infectious diseases, immune responses and the biochemistry and molecular biology of microorganisms and parasites. The third year is run as a joint course with the Parasitology and Virology degree programmes.

In fourth year you will choose from a range of specialised advanced courses of which at least two must be in microbiology. You will undertake a research project in your final year under the supervision of a researcher. Many of the projects are available in neighbouring institutions, for example in hospitals or local industries.

Special features

Microbiology can be taken as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

In third year a field course at the Marine Biological Station at Millport in the Firth of Clyde provides practical training in aspects of epidemiology. In fourth year there is an optional fieldwork course in marine microbiology.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

Our graduates are employed in many different industries, including public health and hospital laboratories, pharmaceutical companies, water authorities, the food and brewing industries, and the petroleum industry. In addition, some graduates remain in education or research institutes to continue their research studies.

Degrees and UCAS code

BSc (Hons) (C500) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see **www.glasgow.ac.uk/undergraduate/degrees/advancedentry**.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - **www.glasgow.ac.uk/gic**.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/microbiology

Molecular & Cellular Biology

Molecular and cellular biology is a unified way of studying living systems. It combines the disciplines of genetics and biochemistry to understand life at the molecular level and it aims to explain how molecular function produces the hierarchy of living cells, tissues and ultimately whole organisms.

98%

Biology students were satisfied overall

95%

Molecular Biology, Biophysics & Biochemistry students were satisfied overall

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Degrees and UCAS code

BSc (Hons) (C720) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see www.glasgow.ac.uk/undergraduate/degrees/advancedentry.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - www.glasgow.ac.uk/gic.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/molecularcellularbiology

Programme structure

Molecular & Cellular Biology can be studied as a single subject or you can specialise in either Molecular & Cellular Biology with Biotechnology or Molecular & Cellular Biology with Plant Science – see following entries.

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and encouraged to acquire general scientific skills. You will also study two other subjects of your choice in year 1 – www.glasgow.ac.uk/ug/aboutdegrees.

Year 2

In your second year, you will be introduced to the study of genetics, proteins and nucleic acids. You will also be able to choose from a wide range of other courses. You will also study one or two other subjects in year 2 – www.glasgow.ac.uk/ug/aboutdegrees.

Years 3 and 4

If you progress to Honours (years 3 and 4) you will study a broad spectrum of molecular topics: molecular genetic methods, genomics, proteins, membranes and filaments, DNA structure and function, gene expression, mobile DNA, biotechnology, essential cell biology, and experimental strategies.

The degree programme reflects the fusion of biochemistry, genetics and cell biology. It can be applied to the study of all organisms, from humans to plants, bacteria and viruses. In fourth year you will learn to study and interpret primary data from current molecular and cellular biology research and you will choose from a range of specialised advanced courses, including molecular biology of cancer, cell function, the molecular basis of disease, stem cells, biotechnology and the molecular biology of plants.

You will also have the opportunity to undertake a research project under the supervision of a researcher, the results of which sometimes contribute to scientific publications.

Special features

Molecular & Cellular Biology can be taken as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

You will gain hands-on experience of modern laboratory techniques.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

Our graduates are employed in the pharmaceutical, biomedical or biotechnological industries; others go on to postgraduate research in laboratories and then into research careers. Graduates are able to move readily into related specialties such as biotechnology, genetics, immunology, microbiology, pharmacology and physiology.

You may also be interested in

- Molecular & Cellular Biology (with Biotechnology)
- Molecular & Cellular Biology (with Plant Science)

Molecular & Cellular Biology (with Biotechnology)

Biotechnology is a multidisciplinary science that seeks to optimise the utilisation of microorganisms, animals, plants and their cellular components in industrial, medical and agricultural processes and in environmental management. The development of biofuels is very topical.

92%

Students in work/ study six months after finishing

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Programme structure

At Glasgow, the focus is on teaching the molecular sciences and methods that underpin biotechnology.

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and encouraged to acquire general scientific skills. You will also study two other subjects of your choice in year 1 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Year 2

In your second year, you will be introduced to the study of genetics, proteins and nucleic acids. You will also be able to choose from a wide range of other courses. You will also study one or two other subjects in year 2 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Years 3 and 4

If you progress to Honours (years 3 and 4) you will study a broad spectrum of molecular topics in your third year to learn the key sciences that underpin biotechnology: molecular genetic methods, genomics, proteins, membranes and filaments, DNA structure and function, gene expression, mobile DNA, biotechnology, essential cell biology, and experimental strategies.

In fourth year you will learn to study and interpret primary data from current molecular biology and biotechnology research and you will choose from a range of specialised advanced courses. These include some general molecular topics such as the molecular biology of cancer, the molecular basis of disease and stem cells.

You will also study one or two advanced biotechnology topics:

- biotechnology
- plant biotechnology.

You will have the opportunity to undertake a research project under the supervision of a researcher, the results of which sometimes contribute to scientific publications.

Special features

Molecular & Cellular Biology (with Biotechnology) can be taken as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

You will gain hands-on experience of modern laboratory techniques.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

Many of our students opt to undertake further study at postgraduate level in order to pursue careers in scientific research in academic institutions, or in laboratories of industries with a biotechnology or biomedical base. Others find employment in

- industries based in biotechnology, pharmaceuticals and agrochemicals
- the health service, such as in hospital laboratories.

You may also be interested in

- Molecular & Cellular Biology
- Molecular & Cellular Biology (with Plant Science)

Degrees and UCAS code

BSc (Hons) (C110) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see **www.glasgow.ac.uk/undergraduate/degrees/advancedentry**.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - **www.glasgow.ac.uk/gic**.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/biotechnology

Molecular & Cellular Biology (with Plant Science)

Plant science combines a broad range of approaches to understand how plants function in the natural world.

91%

Students were satisfied overall

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Degrees and UCAS code
BSc (Hons) (C200) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements
BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements

Advanced entry
If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see www.glasgow.ac.uk/undergraduate/degrees/advancedentry.

Glasgow International College
For international students entry to this programme is supported by courses from Glasgow International College - www.glasgow.ac.uk/gic.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/plantscience

Programme structure
Year 1
In your first year you will be given a general introduction to all aspects of modern biology and encouraged to acquire general scientific skills.

You will also study two other subjects of your choice in year 1 – www.glasgow.ac.uk/ug/aboutdegrees.

Year 2
In your second year, you will be introduced to the study of genetics, proteins and nucleic acids. You will also be able to choose from a wide range of other courses.

You will also study one or two other subjects in year 2 – www.glasgow.ac.uk/ug/aboutdegrees.

Years 3 and 4
If you progress to Honours (years 3 and 4) you will study a broad spectrum of molecular topics: molecular genetic methods, genomics, proteins, membranes and filaments, DNA structure and function, gene expression, mobile DNA, biotechnology, essential cell biology, and experimental strategies.

You will also study molecular aspects of plants, plant metabolism, biotechnology, plant physiology, and plant growth and development.

You will also have the opportunity to undertake a research project under the supervision of a researcher, the results of which sometimes contribute to scientific publications.

Special features
Molecular & Cellular Biology (with Plant Science) can be taken as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

You will gain hands-on experience of modern laboratory techniques.

Our international links
You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects
Our graduates move into a wide variety of careers or to advanced study either in the UK or abroad. There are increasing opportunities in the agrochemical, pharmaceutical and fermentation industries, particularly for those graduates with interests in plant molecular biology and biotechnology. Graduates with ecological interests are increasingly being employed to monitor the environmental aspects of such industries and in conservation work. Other areas of employment include the Scientific Civil Service, government research laboratories and teaching.

You may also be interested in
- Molecular & Cellular Biology
- Molecular & Cellular Biology (with Biotechnology)

Neuroinformatics (Computing Science & Physiology)

Neuroinformatics combines neuroscience (the study of the brain) and information science (the collecting, storing, and arranging of information, especially using powerful computers).

100%

Computing Science students were satisfied overall

94%

Physiology students were satisfied overall

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Programme structure

This innovative and challenging degree programme examines the application of computational and analytical techniques to neuroscience, which has led to a recent explosion in computer modelling of complex physiological processes, ranging from the behaviour of single neurones to high-level cognitive processes.

Years 1 and 2

In the first two years you will study a combination of computing science, mathematics, biology and physiology.

Years 3 and 4

If you progress to Honours (third and fourth years) you will acquire

- a deep understanding of the core areas of computing science and physiology which underpin information processing
- an understanding of the ways in which information is processed by the central nervous system
- the ability to draw on your understanding of information processing to gain insight into the computational properties of real neurones and networks made up of neurones
- an understanding of the possible application of physiological principles to computing.

In your final year (fourth year) you will study some areas in much greater depth. The distinctive features of your final year will be

- a research project carried out under the supervision of a member of academic staff
- a selection of biological and computing science courses.

The project gives you a real opportunity to contribute to the development of the subject and the results sometimes contribute to scientific publications.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

Our graduates go on to undertake research or are employed in industry or commerce. You will be well prepared to work in industries which also require an understanding of the neural processes of communication and control – for example, the pharmaceutical or engineering control industries.

This programme is particularly suited to graduate entry into Medicine.

You may also be interested in

- Computing Science
- Electronic & Software Engineering
- Mobile Software Engineering
- Software Engineering

Degree and UCAS code

BSc (Hons) (GB41) – four years

Entry requirements

Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. Normally have A-level Mathematics at B or above. AS Level in either Biology or Chemistry. A minimum level of Chemistry studied in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/neuroinformatics

Neuroscience

The brain is possibly the most complex structure in the universe and we still know very little about how it works. Neuroscience is the study of the brain and the rest of the nervous system – including both normal and abnormal function and structure – in humans and other animals.

91%

Students were satisfied overall

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Degrees and UCAS code
BSc (Hons) (B140) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements
BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

Advanced entry
If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see www.glasgow.ac.uk/undergraduate/degrees/advancedentry.

Glasgow International College
For international students entry to this programme is supported by courses from Glasgow International College - www.glasgow.ac.uk/gic.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/neuroscience

Programme structure
Year 1
In your first year you will be given a general introduction to all aspects of modern biology and encouraged to acquire general scientific skills.

You will also study two other subjects of your choice in year 1 – www.glasgow.ac.uk/ug/aboutdegrees.

Year 2
In second year, you will be introduced to the study of human physiology, human anatomy, pharmacology and neuroscience. You will also be able to choose from a wide range of other courses.

You will also study one or two other subjects in year 2 – www.glasgow.ac.uk/ug/aboutdegrees.

Years 3 and 4
If you progress to Honours (third and fourth years) you will take courses that will provide you with an overview of
- human biology
- the central nervous system
- molecular biology
- developmental biology.

You will also have lectures specific to your chosen area of interest, and practicals and tutorials in neuroscience.

In fourth year you will study four specialised neuroscience-related topics chosen from the Honours options. You will also complete a research project carried out under the supervision of a member of academic staff, and a dissertation.

During the programme you will gain hands-on experience of practical techniques including
- experimental design
- ways of gathering data
- statistical analysis of data.

You will also develop personal skills in collecting and presenting information in formal and informal environments.

Special features
You can take Neuroscience as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

You will gain hands-on experience of modern laboratory techniques.

Our international links
You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects
Our graduates are employed in a range of areas including the pharmaceutical industry in the UK and overseas. Many go on to undertake postgraduate research degree programmes.

Parasitology

Parasitology deals with a wide range of infective agents, ranging from the microscopic protozoans that cause malaria and sleeping sickness to large parasitic worms.

98%

Students were satisfied overall

90%

Students in work/ study six months after finishing

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Programme structure

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and will be encouraged to acquire general scientific skills. You will also study two other subjects of your choice in year 1 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Year 2

In second year, you will be introduced to the study of microorganisms, infection and immunity and practical microbiology. You will also be able to choose from a wide range of other courses. You will also study one or two other subjects in year 2 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Years 3 and 4

If you progress to Honours (third and fourth years) you will study the range of pathogens from bacteria, viruses and protozoan parasites, to helminths and fungi. We take a modern approach to understanding the basic biology of the pathogens, during which you will learn about virulence mechanisms, strategies for becoming established in the host, immunopathology, the host's immune response to pathogens, control methods including diagnosis, vaccinology and chemotherapy, and drug resistance.

You will be trained in modern methods of cell biology, biochemistry, immunology and molecular biology as applied to infection biology. The third year is run jointly with the Microbiology and Virology degree programmes.

Our fourth year course takes the basic knowledge learned in third year as a foundation and builds on it through further analysis and discussion. The course is made up of four five-week Honours options; a research project carried out under the supervision of a member of academic staff; an oral presentation of the research project; an essay; a scientific poster.

Special features

You can take Parasitology as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas. Eligible students apply for the MSci programme at the end of second year.

The University has particular strengths in parasitology, with several world-class research centres dedicated to the subject. This provides teaching from a wide range of disciplines and exposure to research ranging from epidemiology of parasitic diseases to the immunology of the infections and the biochemistry and molecular biology of the parasites themselves.

In third year a field course at the Marine Biological Station at Millport in the Firth of Clyde provides practical training in aspects of epidemiology and parasitology.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to ten months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

A large number of our students take up research studentships, either in parasitology, or subjects encountered during their studies including immunology or molecular biology in universities or research institutions throughout the UK. Many have gone on to successful careers in health, international development, teaching or the commercial sector.

Degrees and UCAS code

BSc (Hons) (C111) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see **www.glasgow.ac.uk/undergraduate/degrees/advancedentry.**

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - **www.glasgow.ac.uk/gic**.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/parasitology

Pharmacology

Pharmacology is the study of drugs – not just medicines, but also substances produced within the body, such as hormones. It also encompasses the study of food additives, agricultural compounds such as insecticides, and even animal venoms and toxins.

90%

Students in work/ study six months after finishing

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Degrees and UCAS code

BSc (Hons) (B210) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed. Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see www.glasgow.ac.uk/undergraduate/degrees/advancedentry.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - www.glasgow.ac.uk/gic.

Note

Pharmacology is not the same as pharmacy and this degree does not qualify you as a pharmacist.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/pharmacology

Programme structure

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and taught general scientific skills.

You will also study two other subjects of your choice in year 1 – www.glasgow.ac.uk/ug/aboutdegrees.

Year 2

In second year, you will be introduced to the study of human physiology and anatomy, pharmacology and neuroscience, as well as choosing from a wide range of other courses.

You will also study one or two other subjects in year 2 – www.glasgow.ac.uk/ug/aboutdegrees.

Years 3 and 4

If you progress to Honours (third and fourth years) you will study the principles on which pharmacology is based, the effects and mechanisms of action of the major drugs, and undertake specialised study of molecular, cardiovascular and neuro-pharmacology.

The strength of this programme is its integrated nature, as it incorporates the fundamentals of anatomy, physiology and biochemistry into pharmacology.

As part of the programme you may participate in a full research project, and have the opportunity to take part in a work placement within the pharmaceutical industry.

Our third-year course will introduce you to the basic principles of quantitative pharmacology and provide you with basic practical skills and an introduction to laboratory techniques.

The fourth-year course includes a research project carried out under the supervision of a member of academic staff. The project gives you a real opportunity to contribute to the development of the subject and the results sometimes contribute to scientific publications.

By the end of your final year you should be thoroughly familiar with all aspects of drug action and be able to originate hypotheses for new experiments, and to design and execute a series of experiments to test them.

Special features

You can take Pharmacology as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

Every year a number of our students go on work placements to prestigious companies such as AstraZeneca, GlaxoSmithKline and Pfizer.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

Many of our graduates work in academia and the pharmaceutical industry. The emphasis on practical training and the training in relevant generic skills makes this degree a sought after qualification. The majority of graduates continue with research studies and gain MSc and PhD qualifications before moving into employment.

Physiology

Physiology is concerned with the working of living organisms. It aims to understand the underlying processes and mechanisms operating in structures from single cells to the whole animal.

94%

Students were satisfied overall

90%

Students in work/ study six months after finishing

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Programme structure

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and encouraged to acquire general scientific skills. You will also study two other subjects of your choice in year 1 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Year 2

In second year, you will be introduced to the study of human physiology, human anatomy, pharmacology and neuroscience. You will also be able to choose from a wide range of other courses. You will also study one or two other subjects in year 2 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Years 3 and 4

If you progress to Honours (third and fourth years) you will learn about the major organ systems of the body, including cardiovascular, respiratory, alimentary and the central nervous system.

You will also study other topics such as the properties of excitable cells and mechanisms regulating the internal environment of the body. You will be introduced to a wide range of experimental techniques, as well as methods for analysing and presenting experimental results.

The fourth-year course builds on the broad background you will have obtained in third year by covering several topics in physiology in depth. An important component of the fourth year is an Honours project carried out under the personal supervision of a member of staff.

Special feature

You can take Physiology as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

Physiology provides a broad scientific education, which allows our graduates to pursue a career in research or work in related subjects and in areas such as universities and the pharmaceutical industry, scientific publishing or public health. As a graduate you will have a number of direct paths open to you:

- physiologists work with clinical colleagues in the investigation of diseases
- neurophysiologists study the brain
- cellular physiologists study how individual cells work
- sports physiologists work with athletes and dieticians.

Others may study development, ageing, disease, extreme conditions (like high altitude and space) or the cardiovascular system.

Recent graduates have gone on to train as teachers, nurses, doctors and dentists. Several have taken postgraduate courses in dietetics, metabolism and physiotherapy.

Degrees and UCAS code

BSc (Hons) (B120) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Joint Honours

We offer a Joint Honours degree programme in Physiology & Psychology (BC18).

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed. Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see **www.glasgow.ac.uk/undergraduate/entryrequirements.**

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see **www.glasgow.ac.uk/undergraduate/degrees/advancedentry**.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - **www.glasgow.ac.uk/gic**.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/physiology

Physiology & Sports Science

Whether at the level of basic health or high-level sport, physiology and sports science is designed to serve the community in terms of research, teaching and counselling.

98%

Students were satisfied overall

90%

Students in work/ study six months after finishing

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Degrees and UCAS code

BSc (Hons) (BC16) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer. Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades. Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed. Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see www.glasgow.ac.uk/undergraduate/degrees/advancedentry.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - www.glasgow.ac.uk/gic.

Note

Sporting proficiency is not essential for admission to the programme, nor does the programme involve you directly in sport.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/physiologysportsscience

Programme structure

This degree programme emphasises the scientific study of human performance in sport and exercise. There are three main strands – physiology, psychology and biomechanics. Our programme is taught by physiologists and sports scientists, while other experts from within and outside the University provide additional teaching in drugs in sport, statistics, nutrition, and the contribution of exercise to public health.

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and taught general scientific skills.

You will also study two other subjects of your choice in year 1 – www.glasgow.ac.uk/ug/aboutdegrees.

Year 2

In second year, you will be introduced to the study of human physiology and anatomy, pharmacology and neuroscience, as well as choosing from a wide range of other courses.

You will also study one or two other subjects in year 2 – www.glasgow.ac.uk/ug/aboutdegrees.

Years 3 and 4

If you progress to Honours (years 3 and 4), you will be able to study elite performance, causes and management of injury, and the interactions of diet, physical activity and genetics on public health. You will also study the physiological adaptations to exercise, nutrition and energetics, focusing on the cardio-respiratory and skeletomuscular systems, and complete specialist courses in statistics and molecular biology techniques.

In fourth year you will choose four five-week courses to study in depth. At the same time you will carry out a research project supervised by a member of academic staff.

Special features

You can take Physiology & Sports Science as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation in the UK or overseas.

Your final year can include working as an intern with sports professionals to give you relevant work experience.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

Sports science graduates are employed in research projects, and in testing and advising professional athletes and recreational exercisers. Recent graduates have entered teaching in schools and colleges and a variety of business careers. Other popular options include postgraduate courses to qualify in medicine or dentistry or as a physiotherapist or nutritionist. Some graduates have gone on to support elite athletes through the Scottish and English Institutes of Sport and professional sports clubs.

Physiology, Sports Science & Nutrition

The importance of nutrition in sports and exercise science is increasingly recognised. This degree programme emphasises the scientific study of human performance in sport and exercise.

95%

Anatomy, Physiology & Pathology students were satisfied overall

90%

Sports Science students were satisfied overall

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Degrees and UCAS code

BSc (Hons) (BC46) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades. Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed. Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, preferably with two science subjects AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see www.glasgow.ac.uk/undergraduate/degrees/advancedentry.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - www.glasgow.ac.uk/gic.

Note

Sporting proficiency is not essential for admission to the programme, nor does the programme involve you directly in sport.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/physiologysportssciencenutrition

Programme structure

There are three main strands to this programme – physiology, psychology and biomechanics. You will be taught by physiologists and sports scientists, while other experts provide additional teaching in drugs in sport, statistics, nutrition, and the contribution of exercise to public health.

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and taught general scientific skills.

You will also study two other subjects of your choice in year 1 – www.glasgow.ac.uk/ug/aboutdegrees.

Year 2

In second year, you will be introduced to the study of human physiology and anatomy, pharmacology and neuroscience, as well as choosing from a wide range of other courses.

You will also study one or two other subjects in year 2 – www.glasgow.ac.uk/ug/aboutdegrees.

Years 3 and 4

If you progress to Honours, in third year you will study the physiological adaptations to exercise, nutrition and energetics, focusing on the cardio-respiratory and skeletomuscular systems, and complete specialist courses in statistics and molecular biology techniques.

In fourth year, you will specialise in nutrition, and sports and exercise nutrition. Courses include

- Food and nutrient requirements through the lifecycle
- Digestion, absorption and nutritional metabolism
- Exercise and sports nutrition
- Dietary assessment and nutritional epidemiology.

You will also carry out a substantial research project. Much of the fourth year course is designed to be self-directed learning and you will be given opportunities to increase your critical, statistical, computing and communication skills. Team work is also a major theme.

Special feature

You can take this programme as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation in the UK or overseas.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

This degree will provide you with a variety of career opportunities in sports science and/or nutrition. You may choose to go into health promotion, the food and nutrition support industry, fitness testing, lifestyle consultancy or research. A wide range of other graduate careers available includes accountancy and teaching. Several of our graduates have gone on to undertake postgraduate study in dietetics, physiotherapy or other specialist training, or to study for a PhD.

Virology

Virology is the study of viruses and viral diseases. Viruses are both disease agents and model systems, meaning that virology continues to be at the centre of modern biomedical research.

100%

Students were satisfied overall

95%

Students in work/ study six months after finishing

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Programme structure

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and taught general scientific skills.

You will also study two other subjects of your choice in year 1 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Year 2

In second year, you will be introduced to the study of microorganisms, infection and immunity, and practical microbiology, as well as choosing from a wide range of other courses.

You will also study one or two other subjects in year 2 – **www.glasgow.ac.uk/ug/aboutdegrees**.

Years 3 and 4

If you progress to Honours (third and fourth years) you will study the range of pathogens from bacteria, viruses and protozoan parasites, to helminths and fungi. We take a modern approach to understanding the basic biology of the pathogens, during which you will learn about

- virulence mechanisms
- strategies for becoming established in the host
- immunopathology
- the host's immune response to pathogens
- control methods including diagnosis, vaccinology and chemotherapy.

You will be trained in modern methods of cell biology, biochemistry, immunology and molecular biology as applied to infection biology. A field course provides practical training in aspects of epidemiology, and you will also undertake a short research project designed to teach the benefits of teamwork.

Our fourth-year course takes the basic knowledge learned in third year as a foundation and builds on it through further analysis and discussion.

The course is made up of

- four five-week Honours options
- a research project carried out under the supervision of a member of academic staff
- an essay
- a scientific poster.

Special features

You can take Virology as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

A field course at the Marine Biological Station at Millport in the Firth of Clyde provides practical training in aspects of epidemiology.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

The broad approach our programme takes provides you with a wide range of skills and expertise, which means you may be well suited to follow postgraduate research either in virology or molecular biology. Many of our graduates are able to find employment in hospital, government and pharmaceutical research laboratories; the health, food and water industries; teaching; and the commercial sector.

In addition, the programme will have provided you with a range of useful transferable skills which can allow employment in areas outwith science.

Degrees and UCAS code

BSc (Hons) (C540) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see **www.glasgow.ac.uk/undergraduate/degrees/advancedentry**.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - **www.glasgow.ac.uk/gic**.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/virology

Zoology

Zoology is the scientific study of all aspects of animal life, from the microscopic single-celled protozoa to vertebrates. So far, about two million animal species have been described and many more await discovery. Scientific knowledge and understanding of animal life is crucial to our understanding of the environment.

96%

Students were satisfied overall

95%

Students in work/ study six months after finishing

Data published by Unistats (unistats.direct.gov.uk) January 2013.

Degrees and UCAS code

BSc (Hons) (C300) – four years
MSci – five years

Students may apply for transfer to the MSci mid-programme. Applications are NOT taken via UCAS.

Entry requirements

BSc, MSci
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

Advanced entry

If you have exceptional A-level or Advanced Higher grades it's possible to gain exemption from Year 1 study and enter directly to Year 2 – see www.glasgow.ac.uk/undergraduate/degrees/advancedentry.

Glasgow International College

For international students entry to this programme is supported by courses from Glasgow International College - www.glasgow.ac.uk/gic.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/zoology

Programme structure

Modern zoology includes the study of
- molecular genetics used, for example, to solve complex, evolutionary problems
- animal behaviour and animal welfare
- how animals interact with their environment
- animal physiology
- how animals develop from egg to adult
- the description and classification of the diversity of animal life.

Year 1

In your first year you will be given a general introduction to all aspects of modern biology and encouraged to acquire general scientific skills.

You will also study two other subjects of your choice in year 1 – www.glasgow.ac.uk/ug/aboutdegrees.

Year 2

In second year, you will be introduced to the study of animal diversity and ecology. You will also be able to choose from a wide range of other courses.

You will also study one or two other subjects in year 2 – www.glasgow.ac.uk/ug/aboutdegrees.

Years 3 and 4

If you progress to Honours (third and fourth years) fieldwork becomes an important component of your study mix.

Specific topics you may study include
- invertebrate and vertebrate biology
- ecology
- molecular ecology
- animal physiology
- parasite biology
- marine biology.

There are also courses on experimental design, data collection and analysis.

In fourth year you will choose four topics to study in much greater depth. These include
- parasites, disease and immunity
- tropical rainforest ecology
- applying ecology, conservation and management of populations
- behavioural ecology
- evolution – pattern and process
- bioethics
- physiological ecology of marine animals.

A major component of your final year is an independent research project. This project will give you the chance to research something new, and the results sometimes contribute to scientific publications.

Special features

You can take Zoology as an MSci, which includes an additional placement year, between the third and final years of the degree. This is normally spent doing research in industry or some other organisation such as a research institute in the UK or overseas.

Field courses are conducted at the Scottish Centre for Ecology & the Natural Environment on Loch Lomond and at the Marine Biological Station at Millport in the Firth of Clyde.

Our international links

Research projects may be undertaken on a wide range of topics in a variety of international locations: recent examples include marine turtle breeding in Cyprus and tree frog behaviour in Trinidad. You may also have the opportunity to take an optional overseas field course.

Career prospects

Our graduates are employed in research underpinning medicine, agriculture, fisheries and wildlife conservation. An increasing number of graduates also go into environmental monitoring. Others find careers in teaching in a variety of educational establishments, in museums and in the media.

Biological Sciences

The Biological Sciences BSc programme in a designated subject is a three-year degree. You will study a range of biology subjects in first and second years, and in third year you will concentrate entirely on your degree subject.

95%

Human Biology students were satisfied overall

100%

Infection Biology students were satisfied overall

Examples of data published by Unistats (unistats.direct.gov.uk) January 2013.

Programme structure

There are five degree programmes to choose from within the biological sciences.

Animal Biology

This degree provides an introduction to the principles and problems of whole animal biology. You can choose to spend the whole of third year studying zoology or, if you wish, you can opt to spend the second half of the year studying marine and freshwater biology. This involves aspects of the biology of aquatic organisms, with special emphasis on their application to management of aquatic environments and aquaculture.

Biomolecular Sciences

You will study the molecular basis of living systems. You will see how complex phenomena in multi-cellular organisms like the organisation of cells, tissues and even behaviour are a result of the function of molecules, and how disease and modern medicine relate to molecular function and dysfunction.

Human Biology

You will study the anatomy of the human body, how living organisms work and the study of drugs: what they do and how they do it. The programme aims to explain the underlying processes and mechanisms that operate in structures from single cells to the whole animal.

Infection Biology

You will study the spectrum of infectious diseases, immune responses and the biochemistry and molecular biology of microorganisms and parasites. The final year is run jointly with the Microbiology, Parasitology and Virology degree programmes.

Sports Science

You will study human performance in sport and exercise, with three main strands of physiology, psychology and biomechanics. This is a scientific degree which studies the interactions of genetics and lifestyle rather than teaching coaching or sports techniques.

Our international links

You will have the opportunity to apply to study abroad. The Erasmus Exchange Scheme offers the chance to study at a major European university, for three to 12 months, with some financial support from the EU. The International Exchange Programme allows you to spend a year or a semester in one of our partner institutions in Australia, Argentina, Canada, Chile, China, Japan, Korea, Hong Kong, Mexico, New Zealand, Singapore, or the USA.

Career prospects

These three-year degrees provide a solid scientific grounding for students whose career aspirations do not require the depth of knowledge in a particular subject that is offered by the four-year Honours degree.

You will gain fundamental skills that are applicable in a wide range of careers and you will therefore be attractive to employers who value the results of scientific training and methodology.

Degrees and UCAS codes

BSc – three years
Animal Biology (C302)
Biomolecular Sciences (C760)
Human Biology (B150)
Infection Biology (C930)
Sports Science (C600)

Entry requirements

BSc
Highers: AAAA or AAABB (including two science subjects) in first sitting = unconditional offer.

Applicants who achieved AAAB or AABBB (including two science subjects) at their first sitting WILL receive an offer from the University. This offer may be conditional (on second sitting results) or unconditional, depending on how many applications are received from students who have attained these grades.

Additional offers, either conditional or unconditional, MAY be made to applicants who achieved between ABBB and AABB (including two science subjects) at their first sitting. A decision re these applications will be made in March 2014 once all applications have been reviewed.

Applicants who receive an offer conditional on second sitting results will be required to study Advanced Highers in relevant subjects as an integral part of their conditional offer.

A-levels: AAB, including two science subjects. AS Level in either Biology or Chemistry. All Biology students study a minimum level of Chemistry in first year.

IB: A minimum of 34 points is required to be considered for an offer. Actual offers will specify subjects and grades to be attained at Higher Level.

For a full list of alternative qualifications please see www.glasgow.ac.uk/undergraduate/entryrequirements.

E: lifesci-enquiries@glasgow.ac.uk
W: www.glasgow.ac.uk/ug/biologicalsciences

The city of Glasgow

- The UK's **3rd largest** city and one of the world's **top** student cities (QS Best Student Cities 2012)
- Lively nightlife with more than **700** bars, pubs and nightclubs and **7** cinemas, including the tallest cinema in the world
- More than **20** museums and art galleries, including **Kelvingrove Art Gallery & Museum** and the **Gallery of Modern Art**
- Known as 'dear green place' with over **90** parks and public gardens
- Host of the **MOBO** awards **x 2** plus over **10** different festivals each year
- UK's first **UNESCO City of Music**, host to around **130** music events every week
- **Largest** retail centre in the UK outside London with everything from high street favourites to independent and vintage stores
- **Commonwealth Games** host **2014**
- Excellent sports facilities including wall climbing venues, indoor and outdoor ski slopes and the **Sir Chris Hoy Velodrome**.

'Glasgow is one of Britain's urban gems.'

James Bainbridge, Author, Lonely Planet's *Study Glasgow*

Follow Glasgow on Facebook, Twitter and YouTube: **www.glasgow.ac.uk/interact**

Discover the city with your free Glasgow App. Search 'Glasgow'.