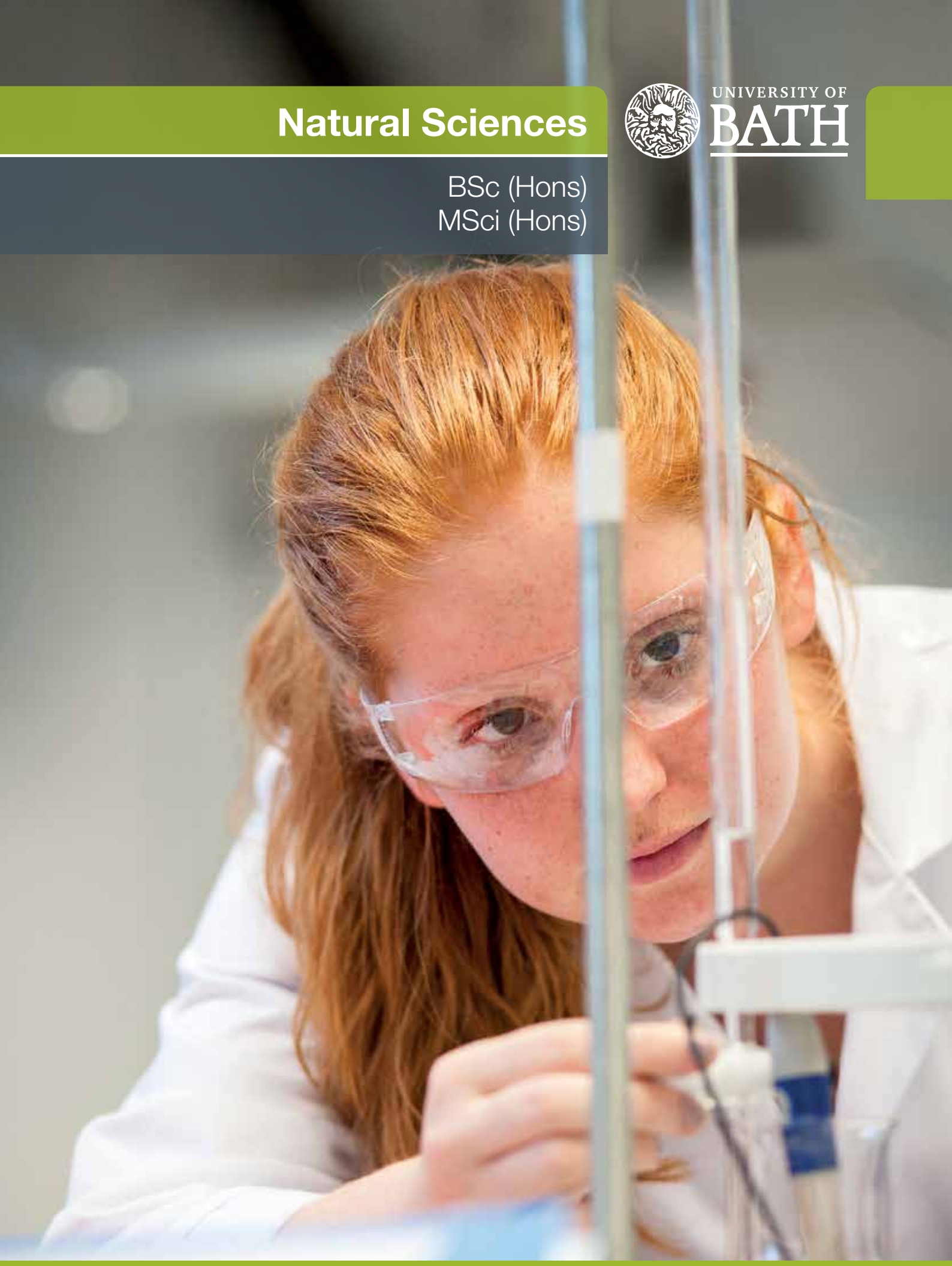
Natural Sciences

UNIVERSITY OF BATH

BSc (Hons)
MSci (Hons)



www.bath.ac.uk/nat-sci

Contents

"Natural Sciences is a great degree, enabling you to combine various areas of science. Rather than narrowing down on a specific scientific area early on, you are able to see which bits interest you the most and see how they all interlink. Natural Sciences is a really good choice if, like me, you can't decide which of your science A levels you like best, or you just don't want to focus on one alone. "

Isabelle Sumner,
BSc Natural Sciences with placement year

Welcome to Natural Sciences at Bath

Image: NASA/JPL-Caltech

"Our Natural Sciences degrees offer a special environment for studying several sciences alongside students specialising in their subject. This enables you to stay multidisciplinary or to transfer to single honours study. You will also have the opportunity to undertake a placement year in order to deploy knowledge and skills outside an academic setting. For nearly a quarter of a century, Bath has accepted high-flying applicants to take on the challenge of the Natural Sciences course. As students, our Natural Scientists enrich the lectures they attend and contribute widely to the life of the University.

"I know that the transition from school or college to university can be challenging and as your lifestyle changes so do the subjects you are studying: biology, chemistry and physics all differ subtly in culture at university compared to school. This is why it can be wise to sample several subjects at university level before deciding in your specialism. We design our Natural Science degrees so your first year choice doesn't define your final year major subject – in which you will perform a research project. Your course can change and develop as your interests do and the committed Natural Sciences team will support you through your university experience.

"I hope you enjoy learning more about our Natural Sciences degrees. If you have any questions or would like further information please get in touch with us."

Dr Paul Snow
Head of Natural Sciences

Natural Sciences

Why Natural Sciences?

Modern science is strongly interdisciplinary with the traditional subjects now overlapping significantly. At Bath, you can find number crunching biologists, biochemists and pharmacologists, physicists who are experts on biomembrane structural determination and chemists whose passion is working out how to mimic the ways plants harvest sunlight. Our Natural Sciences degrees are a great way to gain a deep understanding of one of the mainstream core subjects whilst studying other science and supporting subjects alongside your main subject. If you loved studying chemistry, biology or physics at school or college, and want to keep that breadth, Natural Sciences is for you.

Why Natural Sciences at Bath?

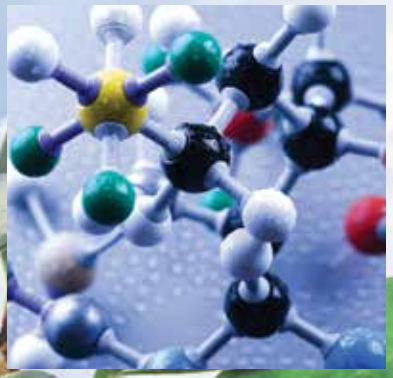
The key to a successful Natural Sciences course is balancing breadth and depth. You may need the in-depth coverage of science to enable you to go on to pursue a potential research career, whilst retaining a range of topics and flexibility. Our Natural Sciences course has developed over 20 years to allow you to study familiar subjects at university level as well as experience new areas of science such as Pharmacology and Mathematical Biology and other subjects as diverse as Education, Environmental Studies, Psychology and Management. The programmes enable you to study a broad range of science subjects and at the same time allow you to design a unique degree to suit your interests and strengths. The diversity of jobs and research roles of our graduates over the years have proved the quality and success of our course.

Professional Placements and Studying Abroad

We have a well-established placement scheme and all Natural Sciences undergraduates have the chance to opt for a year-long placement. Alternatively, if you wish to experience a different culture from your own and gain a new perspective on academic life in an international setting, there is also the study year abroad option in the third year.

Flexibility

The Natural Sciences course has the added flexibility of giving you the ability to transfer between three and four year courses and an undergraduate master's degree. In addition the opportunity to transfer to year two of one of the single honours degrees in Biology, Biochemistry, Chemistry, or Physics after your first year is normally possible.



Bachelors or Masters?

At Bath you have the choice of a Bachelors (BSc) or master's (MSci) Natural Sciences degree. The BSc is a three-year broadly-based course, allowing you to achieve the wide range of skills and intellectual experience that many employers desire in graduates. The four year master's allows you to study your preferred subjects in more depth than is possible within the BSc programmes. The undergraduate master's should be of particular interest to students considering a postgraduate career in science However, it is possible in almost all of the degrees, to switch from MSci to BSc or vice versa after the first year and even to swap onto single honours degrees. Both BSc and MSci courses allow a choice of additional units in years 1 and 2 to broaden and enhance your major and minor choices and the possibilities of placement or international study years.

MSci or BSc in Natural Sciences

The following Natural Sciences subjects are available in our subject streams and can be major subjects:

- Biology
- Biochemistry
- Chemistry
- Environmental Science
- Pharmacology
- Physics

The supporting subjects available are:

- Education
- Management
- Mathematics
- Psychology

All our degrees are based on taking five subject blocks per year, with two taken in the **major science subject**, and at least two in chosen **other sciences**. A further **additional block** which can be in mathematics, a science or a non-science subject, is available to choose every year, except for courses with Physics streams which require you to take the Mathematics block as one of your choices. All permitted first year choices will enable two or more possible major subjects for the final year.

MSci or BSc degrees

- Biochemistry major with Chemistry
- Biochemistry major with Pharmacology
- Biology major with Chemistry
- Biology major with Pharmacology
- Biology major with Physics
- Chemistry major with Biology
- Chemistry major with Pharmacology
- Chemistry major with Physics
- Physics major with Chemistry
- Physics major with Biology

BSc only degrees

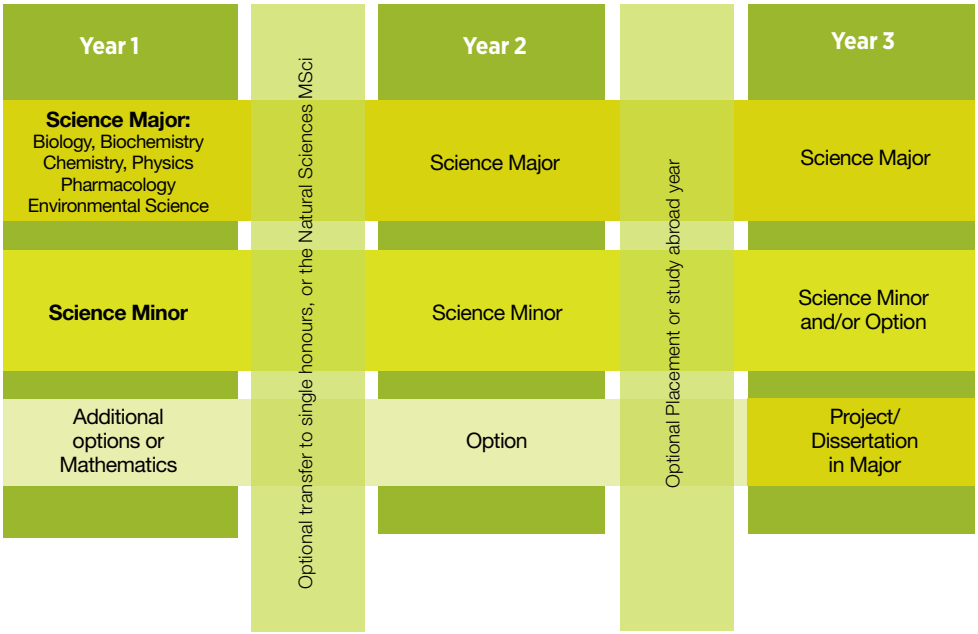
- Environmental Science major with Biochemistry
- Environmental Science major with Biology
- Environmental Science major with Chemistry
- Pharmacology major with Biochemistry
- Pharmacology major with Biology
- Pharmacology major with Chemistry

Additional units

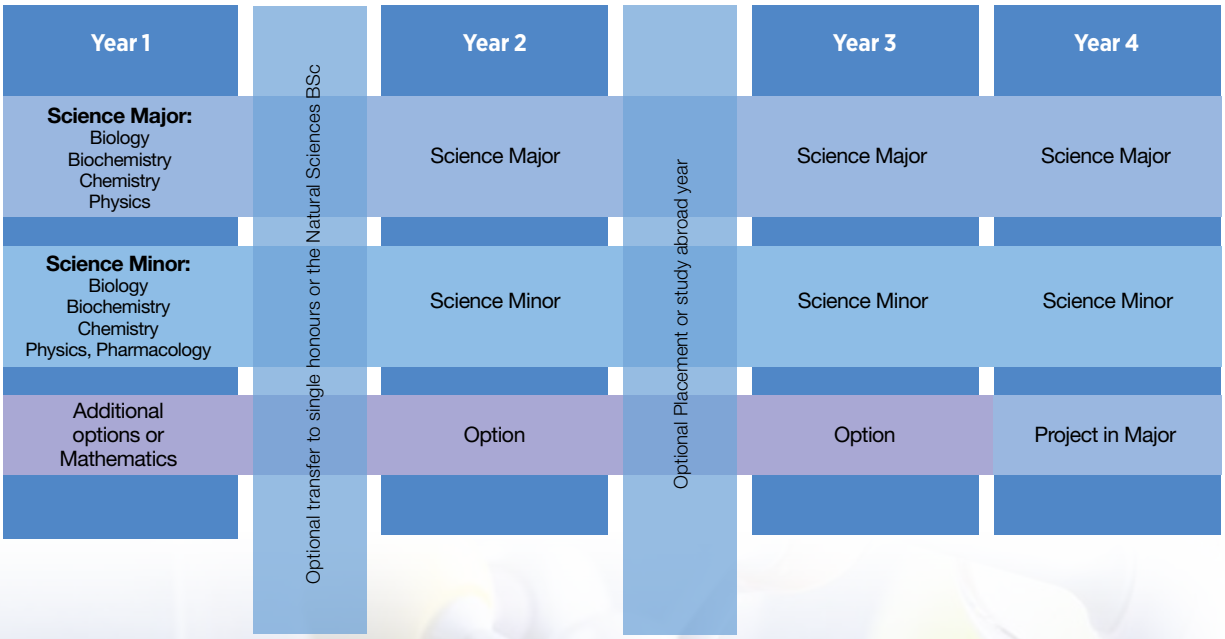
- Biochemistry
- Biology
- Chemistry
- Education
- Environmental Science
- Management
- Mathematics
- Psychology

Natural Sciences course structures

Bachelors (BSc in Natural Sciences) flowchart



Masters (MSci in Natural Sciences) flowchart

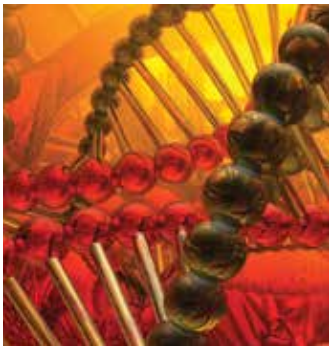


More information about subject combinations can be found at **go.bath.ac.uk/nat-sci**

Natural Sciences placement year

One of the distinguishing features of our degrees is the integrated placement. This takes place in the third year but you do not have to decide if you want to do a placement until spring of the first year. Recent placement employers include:

- **Bank of England**
- **BMW**
- **CERN**
- **Cancer Research UK**
- **Deloitte**
- **Defence Science & Technology Laboratory (DSTL)**
- **European Synchrotron Radiation Facility**
- **GlaxoSmithKline (GSK)**
- **Harvard University**
- **Pfizer**
- **Price Waterhouse Cooper (PwC)**
- **Sharp**
- **Shell Global Solutions**
- **University of Western Australia**
- **University of Oxford**
- **Wessex Water**



How you can benefit from your placement year

- Potential to earn a salary
- Gain real experience in the professional world putting knowledge into practice
- Improves your final year performance
- Develops your professional skills including time management, communication and team work skills - Invaluable experience of the recruitment process
- Possibility of securing a graduate position with the placement employer after your degree
- Improve your employability

How the placement year works

Once you have decided to do a placement our dedicated placements team will support and guide you throughout the process, including applying for positions, CV writing and interviews. The placements team will also keep in contact with you throughout the placement year and you will be visited at your place of work where possible. The placement is structured and monitored so that it can form part of your professional development. Our placements are an integral part of our degrees and receive formal recognition on your degree certificate.

Please note, although the Placements Team can offer considerable support in the application process, it is your responsibility to secure a placement. Securing the right placement takes time and effort and there may be competition for places with other students and universities.

Natural Sciences study year abroad

Study abroad scheme

You may wish to expand your academic horizons by spending the third year of their degree at a university outside the UK. A designated study year abroad tutor is available to advise and assist students with their applications. Like the placement year, success is dependent on the number of places available and competition from other students

Some of the Universities which we currently exchange students with are:

Australia – University of Queensland, University of Sydney, University of Western Australia

Austria – Tu Wien

Canada – Dalhousie University

Denmark – University of Copenhagen

Finland – University of Helsinki

France – University of Bordeaux

Germany – Free University of Berlin, University of Hamburg, University of Regensburg

Ireland – University College Dublin

New Zealand – University of Canterbury, University of Auckland

Singapore – National University of Singapore

Spain – Complutense University of Madrid

USA – Purdue University, University of Virginia, University of Texas at Austin

Please note that exchange agreements with overseas institutions evolve with time, and no guarantee can be given that any specific university will be available in any given year.

How to apply

The study year abroad option does not need to be confirmed until year two of your degree. Places are limited and will normally involve a competitive selection process if they are oversubscribed. Students will be selected based on overall academic achievement and relevant language skills where appropriate.

Foreign language courses

There will be a requirement for foreign language skills in some universities. The University's Foreign Languages Centre offers courses to all students whether spending a year abroad or not, from beginners to advanced. These courses include French, German, Spanish, Italian, Japanese and Mandarin Chinese.

Visit **www.bath.ac.uk/flc** to find out more.

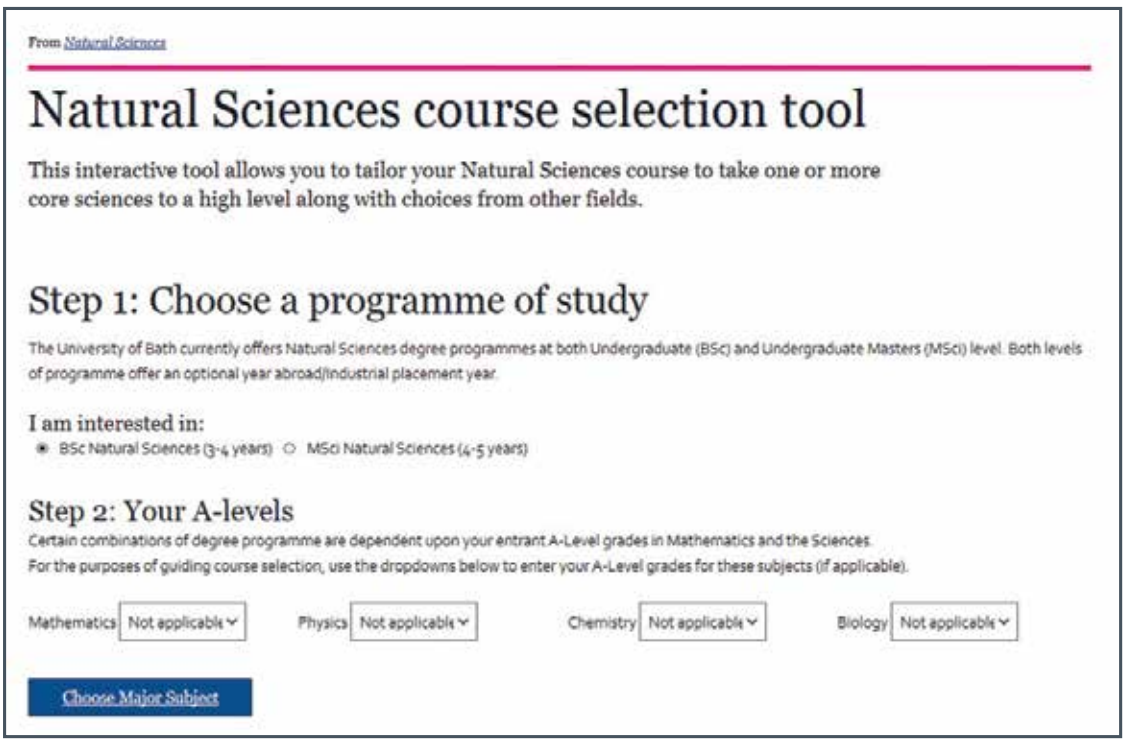
Help with choosing and building your course

More information is available on our website:
go.bath.ac.uk/nat-sci

Check the Natural Sciences course page:
www.bath.ac.uk/nat-sci/admissions

You can find a web based course building tool at:
www.bath.ac.uk/nat-sci/mycourse
where you can build up details of all of the years of your individual course, whilst making sure the whole course remains coherent. The web app automatically checks for pre-requisites such as appropriate A Level grades.

You can also find a very detailed explanation of the course structure, and the available units in the course selection guide through the website or at:
www.bath.ac.uk/nat-sci/admissions/course-selection-guide.pdf


From Natural Sciences

Natural Sciences course selection tool

This interactive tool allows you to tailor your Natural Sciences course to take one or more core sciences to a high level along with choices from other fields.

Step 1: Choose a programme of study

The University of Bath currently offers Natural Sciences degree programmes at both Undergraduate (BSc) and Undergraduate Masters (MSci) level. Both levels of programme offer an optional year abroad/industrial placement year.

I am interested in:
◉ BSc Natural Sciences (3-4 years) ○ MSci Natural Sciences (4-5 years)

Step 2: Your A-levels

Certain combinations of degree programme are dependent upon your entrant A-Level grades in Mathematics and the Sciences.
For the purposes of guiding course selection, use the dropdowns below to enter your A-Level grades for these subjects (if applicable).

Mathematics Not applicable ▾ Physics Not applicable ▾ Chemistry Not applicable ▾ Biology Not applicable ▾

Choose Major Subject

Natural Sciences teaching and learning

"Natural Sciences gave me the freedom to study the areas of chemistry and physics that I am interested in without limiting my studies to a single discipline. The best thing about this is the depth at which we do each subject: the physics lectures are with physics students and the chemistry with chemistry students, there is no "dumbing down" for natural science students just because we do more than one discipline. This allows for us to take different approaches to the same subject, and as such gain greater understanding and appreciation for them.

"Bath is, for me, the ideal place to study natural sciences, being a campus university, as all the departments are local to one another and thus can collaborate more effectively, meaning the quality of education and research is a cut above."

Gareth Shepphard,
MSci Natural Sciences

You can expect a mix of different teaching styles whichever Natural Sciences course you build for yourself. You'll go to lectures, small group tutorials and workshops for your different units, as well as practicals and, for the biology stream, an optional field trip. You'll use our lecture capture system to revise and catch up, and can even finish that essay in the middle of the night on one of the PCs in the library, open 24 hours a day, 365 days a year.

For almost all of the Natural Sciences courses, you are taught alongside the students studying the single honours subjects. For example, in Chemistry units you will go to lectures with the chemists, and have small group tutorials and workshops alongside them. In some subjects you will have separate practical classes.

Support and help while you're here

There is a whole team of people to support you during your time in Bath. When you choose your major subject you will be allocated a personal tutor from that discipline, whose role is to be an academic contact throughout your time in Natural Sciences. They can also help out with any other problems that can arise, including illness, family and finance. Your personal tutor can also refer you on to the Student Support Services, where professional advice is available. Each department contributing to Natural Sciences has a dedicated academic - the subject convenor – who can help with any specific questions with that subject, and the Natural Sciences team including the Programme Administrator, Senior Tutor, the Directors of Studies and Director of Teaching are always willing to help.

How to apply

Application process

Applications to our courses are made through UCAS – the UK Universities and Colleges Admissions Service. Once you have sent your application to UCAS, your form will be considered by our Admissions Team. Every application received before the UCAS deadline in January is given equal consideration, paying particular attention to the subjects you are studying, your predicted grades, your reference and personal statement. Factors such as academic achievement, your potential, skills, motivation and commitment will all be considered. For more information on how to apply and deadlines visit **www.ucas.com**

We do not generally conduct interviews for Natural Sciences courses unless we feel that we would like to know more about you and your academic preparation for university. For example, this may apply if you have non-traditional qualifications or you have been out of mainstream education for a period of time. Our primary interest is to verify that you have the knowledge and abilities to succeed on one of our courses.

Once you've been made an offer you will be invited to a departmental UCAS Day. This will give you a taste of what it's like to study here and an opportunity to meet current students and staff.

Open Day

If you would like to find out more about our courses, you can visit us on a University Open Day in June or September. You'll be able to speak to current students and staff about your options and hear talks on our courses.

Visit **www.bath.ac.uk/study/ug/opendays** to find out more about our Open Days.

Living and studying at Bath

The University of Bath is a vibrant community that is located just one mile from Bath city centre. Everything you need as a student is on campus including cafes, a grocery store, two banks, a dentist, medical centre, arts centre and top sports facilities.

Bath itself is a relatively small but beautiful UNESCO World Heritage City. It is a great place to be a student with a good selection of restaurants, bars and cafes plus theatres, cinemas, museums and galleries. There are excellent bus links to and from the campus as well as good train links to London and Bristol.

www.bath.ac.uk/about/city

Students Union

We have one of the top Students' Unions as voted in the National Student Survey. When you join the University of Bath, you automatically become a member of the SU which will give you access to all of the services on offer such as student welfare advice, representation, skills training, peer support, events, sports and societies.

www.Bathstudent.com

Accommodation

There are a broad range of rooms both on and off campus to suit most budgets. You are guaranteed accommodation for your first year as long as you:

- are a full-time first year student
- have accepted Bath as your firm choice
- have accepted and applied for accommodation via the online system before the deadline

www.bath.ac.uk/study/ug/accommodation

Library

Our library on campus is open 24 hours a day, 365 days a year. As a student here you will have access to thousands of books and articles many of which can also be accessed online. You will also have access to computers around campus and Wi-Fi hotspots.

www.bath.ac.uk/library

Sports facilities

Our £30 million Olympic-style Sports Training Village represents one of the best university sports facilities in the country. Facilities include a 50m pool, fully equipped gym, 400m athletics track, sports halls, tennis courts, all-weather pitches, the Physio and Sport Science Centre and much more. As a student here you will have access to the facilities seven days a week with dedicated student sport sessions every day.

www.teambath.com

The arts

There are many ways you can get involved in the arts at Bath. The Edge offers a range of discounted classes in dance, music and visual arts as well as free practice facilities. There is also an extensive programme of live performances, exhibitions and concerts.

www.bath.ac.uk/arts

Some useful links

Careers
Our careers service offers information, advice and guidance to all students.

www.bath.ac.uk/students/careers

Cost of living
Take a look at our budget guide and start planning financially for university.

www.bath.ac.uk/study/ug/funding/living-costs

Funding
Find out if you're eligible to apply for a bursary or scholarship.

www.bath.ac.uk/study/ug/funding

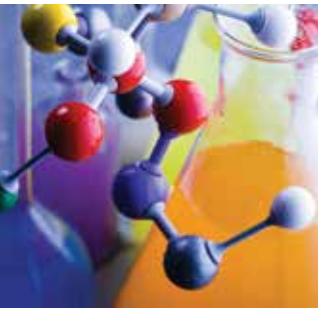
The Disability Service
Provides information, advice and support if you have a disability.

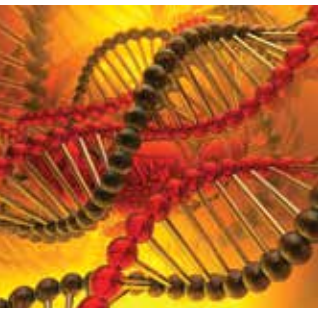
www.bath.ac.uk/guides/getting-support-if-you-have-a-disability

International students
Bath has a truly international community – our students are from over 100 countries around the world.

www.bath.ac.uk/study/international

Natural Sciences: admissions procedure





Our courses

BSc in Natural Sciences

3 years - CFG0 - 3 years
4 years - FCG0 - with placement year
4 years - GCF0 - with study year abroad

MSci in Natural Sciences

4 years - GFC0 - 4 years
5 years - GFCA - with placement year
5 years - GFCB - with study year abroad

Places Available: approximately 90 (BSc + MSci)

Course entry requirements

Typical offer:

A*AA–AAA including A2 Maths
Minimum of two core sciences (Biology, Chemistry, Physics, Mathematics*)

Alternative A level offer:

AAA including Mathematics and two subjects from Biology, Chemistry or Physics, plus one of the following:

- Grade A in an EPQ
- Grade B in the Welsh Bacc Skills Challenge Certificate
- Grade M1 in Cambridge Pre-U Global Perspectives

Students presenting with one of the above project qualifications should receive both the typical offer and the alternative.

Appropriate standards at International Baccalaureate are 36 points overall, with minimum scores of 7,6,6 in three subjects at the Higher Level, including at least two core sciences. Other qualifications are acceptable; further details available on request.

Applications are welcome from mature students, students with disabilities, specific learning difficulties, and additional support needs.

**contact Admissions Tutor before applying if Mathematics is one of your two core sciences*

Admissions Enquiries:
Dr Susan Crennell
Admissions Tutor
Telephone: 01225 384302 or 386644
email: natsciapplicants@bath.ac.uk

After your degree

It is crucial that you choose a course that has strong evidence of being able to deliver good graduate opportunities. Bath students are consistently near the top of the table in graduate employment rates, and Natural Sciences is no exception. Here are some recent examples:

Employment

- **Accountant / Audit Trainee: Deloitte, KPMG, PwC, Rouse Partners, RSM, Smith & Williamson**
- **Applications Portfolio Analyst: BP**
- **Clinical Trials Administrator: Merck Sharp & Dohme**
- **Civil Servant: Defence Science and Technology Laboratory**
- **Data Analyst: Agriculture & Horticulture Development Board, Office of Gas and Electricity Markets**
- **Data Manager: The Institute of Cancer Research**
- **Defence Systems Engineer: BAE Systems**
- **Energy Forecasting Analyst: Wessex Water**
- **Financial / Investment Analyst: Goldman Sachs, Pyrford International, BlackRock**
- **Laboratory Analyst: Exception PCB, Thames Water Utilities**
- **Management Consultant / Business Analyst: Accenture, Adelphi Group, Centrica, North Highland, Tesco**
- **Medical Writer: Cancer Research UK**
- **Research Executive: Purdie Pascoe**
- **Software Developer / Engineer: Covance CAPs**
- **Teacher of English as a Foreign Language: St Giles International**
- **Technical Delivery Graduate: BAE Systems**

Further Study

Our Natural Sciences course is a great route to further study both for master's degrees and PhDs. Here are some examples of postgraduate courses our recent graduates have progressed on to:

PhD/MPhil: Biomedical and Translational Science (King's College); Chemistry and Design (Leeds), Metamaterials CDT (Exeter), Neurology – Leonard Wolfson Programme (UCL).

PhD/DPhil/CDT: Advanced Metallic Systems (Manchester/Sheffield), Neurodegeneration (UCL), Physical and Theoretical Chemistry (Oxford).

MSc/masters: Biomedical Engineering (Imperial), Cancer Research (UCL), Chemical Research (Queen Mary), Finance (Imperial), International Health Policy (LSE).

Career destinations of recent Natural Sciences graduates can be found on the Careers Advisory Service website:
www.bath.ac.uk/careers

Courses

BSc (hons) Natural Sciences
Full Time CFG0

BSc (hons) Natural Sciences with Professional Placement FCG0

BSc (hons) Natural Sciences with Study Year Abroad GCF0

MSci (hons) Natural Sciences
Full Time GFC0

MSci (hons) Natural Sciences with Professional Placement GFCA

MSci (hons) Natural Sciences with Study Year Abroad GFCB

Information on all of these can be found on our Department website.

Typical offers

For detailed and up-to-date information please check
www.bath.ac.uk/study

A levels: A*AA-AAA including A2 Maths

For BSc, at least two core sciences (from Biology, Chemistry, Mathematics, Physics).

For MSci, two core sciences other than Mathematics are required.

International Baccalaureate:
36 points, three at grade 6 at Higher Level, including at least two core sciences (from Biology, Chemistry, Mathematics, Physics).

For more information

Contact:
Department of Natural Sciences

Tel: **+44 (0)1225 386644**
Email: **natsciapplicants@bath.ac.uk**
Web: **www.bath.ac.uk/study**

Natural Sciences

UNIVERSITY OF BATH

BSc (Hons)
MSci (Hons)

Important information that you should know

This brochure is published for the guidance of students who wish to enter the university in the 2018-2019 academic year.

The information is correct at the time of printing. For the latest information please visit our website: **go.bath.ac.uk/nat-sci**

There may be rare occasions where due to unforeseen or unavoidable circumstances it becomes necessary to make significant changes to a course or to withdraw it or part of it (e.g. a particular unit/module).

Visit: **www.bath.ac.uk/corporate-information/changes-to-or-withdrawal-of-courses**

Find out more about this and other important University terms and conditions: **go.bath.ac.uk/ugp-important-terms.**

S-XX0192-0517