School of Life Sciences
Biological Sciences | Biochemistry | Biomedical Science
UNDERGRADUATE STUDY 2018
"The first year induction was very inspiring and got me in the right frame of mind for study. The lecturers were very enthusiastic and welcoming."

Bukunmi Omitogun
Biomedical Science

We offer you a warm welcome to the School of Life Sciences

We pride ourselves on our excellent teaching, delivered by inspiring teachers and world leading academic researchers.

We are particularly proud that all our courses are accredited by the Royal Society of Biology, the leading professional body for Biological Sciences in the United Kingdom.

Through our teaching and your learning you will be introduced to key academic principles and techniques that enable the fantastic diversity of life on our planet to be understood. Our modules range from subcellular to the population, from experimental chemistry to theoretical modelling, physiology, disease and the environment. You will learn in a variety of settings: tutorials, lectures, workshops, practicals and private study. Our degrees are flexible and enable you to tailor your choices to your interests.

We develop your future potential right from the start of your degree not only through academic development, but also through development of key personal skills that provide the basis for employment in a wide range of sectors. Personal and senior tutors will support you throughout your time with us.

Warwick recognises the importance of extracurricular activities and provides excellent facilities to enable you to make the most of your degree. Our campus sports facilities are used extensively by University clubs and individuals and our Students’ Union offers over 250 student societies.

Please read our brochure and visit our website to discover the many opportunities awaiting you at Warwick. We look forward to welcoming you to one of our Open Days soon.

Laura Green and Lorenzo Frigerio
Head of School and Director of Teaching & Learning
How will I learn?

As a Life Sciences student you will benefit from a high number of contact hours with the School’s research active academic staff and close supervision throughout your course. Over recent years five members of our staff have won prestigious University Staff Awards.

You will learn through a combination of tutorials, lectures, laboratory work, and independent and group research.

**Tutorials**
You will have weekly (Year 1) or biweekly (Years 2 and 3) taught tutorials primarily with your personal tutor. These sessions, in groups of about six students, ensure that you are able to develop, engage and receive regular feedback on your work. In tutorials, you will complete a range of assignments including problem sets, essays, question and answer sessions and formal presentations. This regular contact with your personal tutor throughout your course provides one-to-one support for your academic work and career development. Your personal tutor normally stays with you throughout your degree and is your first point of call for any academic queries or concerns.

**Laboratories & Learning Suite**
You will have a significant quantity of high quality laboratory time, providing you with the opportunity to develop your laboratory skills. Labs follow on from the lectures to further improve your understanding of the application of scientific theory into practice.

The Interactive Computational Learning Suite, or ‘Orchard’ contains 120 Apple iMac computers. Learning in the Suite gives you the opportunity to develop a high standard of bioinformatics and computational skills, essential for biologists today, which add to your employability.

**Assessment**
You will be assessed in a variety of ways. Students submit course work in the form of multiple choice tests, essays and poster presentations. Each lab ends with the writing up of an assessed laboratory report.

“I like the fact that we stay with the same tutor and tutorial group throughout our degree. It is a great way to build a personal relationship with an academic.”

Banke Adeleke
Biomedical Science

“My favourite part of the course has been the lab classes. Getting to actively perform the experiments described in lectures and observing how results are obtained in real life is both intuitive and interesting. The opportunity to put theory into practical application helps simulate an industry setting.”

Daniel Cooper
Biochemistry
How do we ensure your success?

We provide a supportive and stimulating learning environment, which enables you to take advantage of the many opportunities available.

Senior Tutors
Each year group has a Senior Tutor. The Senior Tutors, working in a team with Personal Tutors, are responsible for your welfare while you study with us.

Medical School Application Support
If you are interested in applying for graduate entry medicine you will have access to our successful support programme.

A year in Industry or at one of our partner Universities
If you wish to take a year to gain industrial experience in any science-related area we will offer support and guidance to help you. Alternatively, you can study abroad in partner institutions across the world.

Quantitative Biology Centre (QuBiC)
All Life Sciences degrees require good quantitative skills. To develop the necessary mathematical and statistical skills, the School runs QuBiC, a daily drop-in service to support you with the quantitative content of your degree.

Student Staff Liaison Committee (SSLC)
The Student Staff Liaison Committee is made up of student representatives from all undergraduate courses and members of staff. The committee provides a space for students to discuss anything related to teaching, learning and student support. The SSLC is one of the ways in which students can get involved in the running of the School.

“I’m really impressed with the SSLC. I found out just how effective they are at dealing with queries raised by students and they really do listen.”

Esther Awodipe
Biomedical Science

BioSoc - the University’s Biology Society
A student run society open to all years helping everyone to make the most of their time as a Life Sciences student.

BioSoc runs Peer Support sessions offering advice and guidance and a range of local volunteering opportunities from teaching in schools to charity work. Attending BioSoc social events is also a great way to meet new people on your course.

BioMed Grid
To support your study, you have full access to the BioMed Grid. This is a learning environment for biologists, with text books, careers information, Wi-Fi, video editing, SMART boards, plasma screens and presentation rooms.

“The BioMed Grid is a fantastic learning environment, well equipped for both individual and group work. It contains all the important books for wider reading, as well as equipment such as projectors and interactive whiteboards, ideal for group work and practising presentations.”

Samuel Davies
Biological Sciences

Science 101
Science 101 is a non-credit rated skills-based module for Year 1 students to help you transition from school to university study. It provides you with the key skills required to enable you to develop as an independent learner.
What are my career prospects?

As a Warwick graduate you will be highly employable.

Our Royal Society of Biology accredited degrees with their high academic content have a strong reputation with employers. We work with students from the outset to develop the skills demanded by today’s employers and develop careers for life.

The Centre for Careers & Skills offers a number of programmes and sessions to assist your personal development. In addition, the School has a dedicated careers advisor, offers career-focused tutorials and runs network events with past students and relevant employers to help your career decisions.

What can I do with a Degree in Life Sciences?

Our graduates have careers in a wide range of sectors including:

**Biology related**
- Academic Research
- Industrial Research
- Medicine
- Scientific Publishing
- Public Health
- Teaching
- Wildlife Conservation

**Non-biology related**
- Business and Marketing
- Accountancy and Finance
- Law
- Computing
- Media
- Civil Service

Many of our students go on to postgraduate study, gaining a Master’s or PhD or entry into a graduate medical school programme.

**Employer destinations include:**

**Biology related**
- AstraZeneca
- Diabetes UK
- GlaxoSmithKline
- NHS
- Oxford BioMedica
- RAGT Seeds

**Non-biology related**
- Brainlabs Digital Advertising Agency
- KPMG
- Lloyds Bank
- Mantlepiece PR

87% OF MBIO STUDENTS GRADUATED WITH A FIRST CLASS DEGREE IN 2016

94% OF ALL 2015 LIFE SCIENCES GRADUATES WERE IN WORK OR STUDY SIX MONTHS AFTER GRADUATION

“Warwick’s excellent reputation and opportunities for experience in the lab made me desirable to employers. My employer saw in me a willingness to learn and an interest in science whose cultivation started at Warwick.”

Larissa Butler, Biochemistry with Intercalated Year
What courses are available to me?

- Biological Sciences BSc (C100) | MBio (C1A1)
- Biochemistry BSc (C700) | MBio (C1A2)
- Biomedical Science BSc (B900) | MBio (C1A3)

Our degree courses are designed to provide choice and flexibility.

We recognise that your interest in particular aspects of biology may develop only when you are more familiar with the subject at university level.

A core syllabus is offered in the first year for all degree courses providing the essential foundations in biology, biochemistry, genetics and chemistry. The same content in the first year means that it is often possible to transfer between the different degrees at the end of the first year.

All of our undergraduate degrees are accredited by the Royal Society of Biology (RSB) and our MBio degrees hold advanced accreditation. RSB accredited degrees undergo rigorous, independent assessment to ensure a solid academic foundation in biological knowledge and key skills and prepares graduates to address the needs of employers.

We also contribute to Life Sciences and Global Sustainable Development (GSD), a degree unique to the University of Warwick. This course allows you to study GSD in depth alongside study of a subject you are passionate about, Life Sciences.

“Biological Sciences
BSc (C100) MBio (C1A1)
This course spans the entire scale of biological systems – from molecules to ecosystems.

The exceptionally wide range of options within the Biological Sciences degree allows you to choose the modules that are best suited to your interests and career ambitions.

It offers broad exposure to cutting-edge research in molecular, cellular and whole organism biology, while covering applications of science to major global challenges such as environmental management, food security, biotechnology and human health.

Year 1 Modules typically include:
- Molecules, Cells and Organisms
- Animal and Plant Biology
- Agents of Infectious Disease
- Physiology and Metabolism
- Environmental Biology
- Quantitative Skills for Biology.

(Chemistry for Biologists is compulsory for entrants without A2 level Chemistry).

Year 2 Modules typically include:
- Molecular Cell Biology
- Multicellular Systems
- Genetics and Evolution
- Ecology and Environment.

Plus one option typically from:
- Immunology
- Protein Structure and Function
- Clinical Microbiology
- Ecology and its Applications
- Pharmacology.

Year 3 Modules typically include:
- Research Project
- Dynamics of Biological Systems.

Plus options such as:
- Advanced Immunology
- Protein Targeting
- Oncology
- Biological Clocks
- Integrative Neuroscience
- Exploiting Innovation in Biology
- Environmental Science and Management
- Principles of Development
- Bioenergy and Biorefining
- Extreme Environmental Biology
- Synthetic Biology
- One World Health and Neglected Tropical Diseases
- Bacteria: Genes to Behaviour
- Science Communication
- Introduction to Secondary Teaching in Biology
- Interdisciplinary and Business modules.

Year 4 Modules (for MBio students):
Extended Research Project and Research Skills (training in advanced laboratory techniques, data handling and statistical analyses, critical analysis of the literature and designing research proposals).

Four-year integrated Master’s (MBio) courses
These provide an additional year of study focused on a substantial research project, either within the School or industry. You can apply directly for the MBio courses and you are guaranteed a place on the BSc courses if you do not achieve MBio entry requirements but do achieve BSc entry requirements. Alternatively, if you are a BSc student and achieve 2:1 or above in your second year, you can apply for a transfer on to the related Master’s course (transfers are subject to visa requirements for international students).

An MBio degree will give additional skills to boost your employability because it provides the academic and transferable skills desired by employers, for example in project management.

“My MBio degree did not just provide me with enhanced technical skills for laboratory-based research but it also prepared me for the ‘real world’ of work.”

Esther Tichauer
MBio Biomedical Science

“This is a very broad course that offers the chance to explore multiple aspects of Life Sciences; to find the area you like best and introduce you to things you’d not thought to explore.”

Adam Pickles
Biological Sciences

[Image of person]
Biochemistry
BSc (C700) MBio (C1A2)

Following an in-depth foundation in biochemistry, the course broadens out to allow you to focus on more specialist fields.

These include biophysical chemistry, which covers biological macromolecules at the atomic level, and understanding the genome and gene regulation. By the third year, optional modules provide you with the opportunity to pursue areas that you find particularly interesting.

You will leave Warwick with a solid background in the biochemical and structural basis of molecular, cellular and developmental processes in a variety of organisms ranging from bacteria to animals.

Year 1 Modules typically include:
• Molecules, Cells and Organisms
• Agents of Infectious Disease
• Physiology and Metabolism
• Physical Chemistry
• Quantitative Skills for Biology
• Organic Chemistry.

Year 2 Modules typically include:
• Molecular Cell Biology
• Tools for Biochemical Discovery
• Protein Biochemistry
• Signalling and Integration in Health and Disease.

Year 3 Modules typically include:
• Research Project
• Protein Targeting
• Structural Molecular Biology
• Biological Clocks
• Dynamics of Biological Systems.

Year 4 Modules (for MBio students):
Extended Research Project and Research Skills (training in advanced laboratory techniques, data handling and statistical analyses, critical analysis of the literature and designing research proposals).

Plus options such as:
• Neurobiology
• Immunology
• Evolution
• Ecology and its Applications
• Genetics and Genomics.

Biomedical Science
BSc (B900) MBio (C1A3)

Biomedical Science involves the study of life processes in humans and provides an understanding of the causes and consequences of human and animal disease, including infection, cancer and neurological decay.

The application of new biological concepts in medicine is an ever-growing and exciting process. Developments in molecular, genetic and cellular biology research continue to drive progress in areas ranging from vaccine development to neurodegenerative diseases and metabolic diseases such as diabetes. Drawing on a spectrum of modules, you will come to understand the nature and extent of human and animal disease, both locally and globally.

Year 1 Modules typically include:
• Molecules, Cells and Organisms
• Agents of Infectious Disease
• Physiology and Metabolism
• Quantitative Skills for Biology

Year 4 Modules (for MBio students):
Extended Research Project and Research Skills (training in advanced laboratory techniques, data handling and statistical analyses, critical analysis of the literature and designing research proposals).

Plus at least one module typically from:
• Animal Anatomy and Histology
• Health and Community
• Environmental Biology.

(Chemistry for Biologists is compulsory for entrants without A2 level Chemistry).

“The lecturers have a genuine passion for the material they teach. They are always more than happy to discuss aspects of their modules that are more difficult to understand.”

Matthew Roberts
Biochemistry

“...hands-on the Biomedical Science course is which was the main deciding factor when I chose Warwick.”

Cal Donnelly
Biomedical Science

Year 2 Modules typically include:
• Human and Animal Physiology
• Molecular Cell Biology
• Immunology and Epidemiology
• Infection.

Year 3 Modules typically include:
• Research Project
• Modern Approaches to Human Disease
• One World Health and Neglected Tropical Diseases.

Plus options such as:
• Advanced Immunology
• Oncology
• Integrative Neuroscience
• Dynamics of Biological Systems
• Synthetic Biology
• Science Communication
• Introduction to Secondary Teaching in Biology
• Interdisciplinary and Business modules.

Plus one option typically from:
• Clinical Microbiology
• Evolution
• Genetics and Genomics
• Molecular Endocrinology
• Pharmacology.

“...the Open Day showed me how hands-on the Biomedical Science course is which was the main deciding factor when I chose Warwick.”

Cal Donnelly
Biomedical Science
How can I get involved in the School’s research?

In our state-of-the-art laboratories and facilities we conduct a broad spectrum of interdisciplinary research based around four themes – Biomedical Science, Biotechnology, Environmental Bioscience, and Plant and Crop Science.

These themes extend from molecules, to cells and organisms, to populations and span bacteria, viruses, fungi, humans, animals and plants and their environments. Our research has applications for many important areas in society and is of high relevance to successful employment for our Life Sciences graduates.

As an undergraduate you become part of our research community.

**Third Year Project**

You will complete a six-week laboratory or data-analysis project in your final year, providing the opportunity to demonstrate independent lab working. You can choose from over 300 general projects and over 100 laboratory-based projects offered by academic staff in a range of diverse research areas. Topics have included; ‘A cut above the rest: The feasibility and desirability of head transplants’ and ‘Synthetic viruses as a cure for superbugs’. Laboratory-based projects have included; ‘Inhibition of glyoxalase 1 as a means of developing anticancer therapeutics’ and ‘Investigating the role of phosphorylation of the protein Tau in Alzheimer’s disease’.

You will be closely supported by a member of staff and will carry out your research within their research group.

**Integrated Master’s Degree (MBio)**

As part of our MBio degrees you spend a major part of your fourth year undertaking a substantial laboratory research project. This can be within one of the School’s research laboratories or alternatively you can work on a project in industry. Recent examples of industrial placements include GlaxoSmithKline, the Health Protection Agency, AstraZeneca and Unilever.

**The Undergraduate Research Support Scheme**

This scheme offers opportunities for undergraduates to gain an insight into research work and to develop valuable transferable skills. Bursaries are available through the scheme, which enables students to gain experience in our research labs.

warwick.ac.uk/urss

**Reinvention**

Reinvention: A Journal of Undergraduate Research is an online, peer-reviewed journal dedicated to the publication of high-quality undergraduate student research. The journal is edited jointly by students from Warwick and Monash University in Australia.

warwick.ac.uk/iatl/ejournal

**The International Conference of Undergraduate Research**

Led by the University of Warwick and Monash University, ICUR is an exclusively undergraduate forum designed to showcase the very best in undergraduate research from across the globe and provides participants with the opportunity to present their work to an international and interdisciplinary audience.

icurportal.com

“"The Year 3 project was one of the highlights of the course for me, it gave me the opportunity to undertake lab work independently and learn a wide range of lab skills studying an area of science that I found really interesting. It encouraged me to look further into laboratory based research for a career and was a good taster for life as an MBio student.”

Rose Hodgson

Biomedical Science

MORE THAN 80% OF RESEARCH IN THE SCHOOL WAS RATED AS ‘WORLD LEADING’ OR ‘INTERNATIONALLY EXCELLENT’ IN THE REF 2014 ASSESSMENT.
How do I apply?

Applications are made through UCAS. The UCAS code for Warwick is WARWK W20. For more information visitucas.com

We strongly encourage you to visit the University to see the campus for yourself and to get a sense of the student experience at Warwick. If you can’t make the trip to Warwick then visit our Online Open Day 4thwallmedia.co.uk/warwick-lifesciences

You can find University Open Day details online warwick.ac.uk/opendays

Once you have applied and have an offer you will be invited to an Offer Holder Open Day when you will be given the opportunity to talk to academic staff and current students and have a look around the School of Life Sciences and the University. You will also take part in a sample tutorial in order to get a taste of what studying here is like.

Successful applicants will be made an offer as soon as possible after their application is received. The offer will be conditional on already having or obtaining the required entry qualifications. If you accept this offer and achieve the required grades in your examinations then your place at the University of Warwick will be confirmed and we will look forward to seeing you at the start of your undergraduate life.

warwick.ac.uk/undergraduate/apply

Overseas Applicants

The University of Warwick has a large number of international students and here within the School of Life Sciences we warmly welcome your application. We are a diverse department with students and staff from all over the world studying and working together. We have a very safe campus and an extensive support structure to encourage your success.

Local advice about the application procedure is available from all British Council Offices and Warwick representatives.

warwick.ac.uk/study/international
What else might I need to know?

Student Fees and Funding
The University wants to ensure that, wherever possible, financial circumstances do not become a barrier to studying at Warwick. We provide extra financial support for qualifying students from lower income families.

Accommodation
Warwick Accommodation has over 6,400 rooms across a range of residences. All rooms are self-catering. Each of the campus residences is fully managed and has an excellent network of support staff in the Residential Life Team.

Helping you find the right career
You will have access to specialist Life Sciences careers advice and opportunities to speak with graduate recruiters, through our Centre for Careers & Skills.

Warwick Students’ Union
One of the largest and most active students’ unions in the country, Warwick SU is the focal point of campus life here at Warwick.

Wellbeing Support
The University has a comprehensive welfare structure in place to ensure that you can easily access advice and guidance throughout your time here.
Disclaimer
This information was correct at the time of printing. Our courses, modules and schedules are continually reviewed and updated to reflect the latest research expertise at Warwick, so it is therefore very important that you check the website for the latest information before you apply and when you accept your offer.