

## Biomedical Science BSc

If you're seeking to deepen your understanding of human biology, diseases, infections, and the diagnostic tools and treatments we need to treat them, study Biomedical Science at Aston University, Birmingham.

### **Location: Aston University, Birmingham**

Course type

Full-time (Hons)

Course format

Optional placement year

Duration

4 years Applied Biomedical Science (with placement)

UCAS code(s)

C900

Start date

Overview

Explore Biomedical Science BSc at Aston University

### **Biomedical Science student Albert Jie talks about his Aston experience, find out more about BSc Biomedical Science at Aston University**

- [Accredited by the Royal Society of Biology](#)
- [Excellent student experience: 100% of our students felt that staff were good at explaining their course material \(National Student Survey, 2023\)](#)
- [BSc \(Hons\) Biomedical Science also offers you the opportunity to apply for HCPC \(Health and Care Professions Council\) registration after graduation.](#)

“My placement was the best decision I made in University. It allowed me to apply the knowledge I had gained in University to real world scenarios. It prepared me not only for my job in the future, but also for my final year of

Uni and was a major factor in the improvement of my performance in my exams."

**Sophie Protheroe**

**Graduate role: Biomedical Scientist, Wye Valley Trust, Hereford**

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Biomedical Science BSc

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University of the year

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**Graduate role: Biomedical Scientist, Wye Valley Trust, Hereford**

## Course outline and modules

Our dual [Institute of Biomedical Science \(IBMS\)](#) and [Royal Society of Biology \(RSB\)](#) accredited Biomedical Science degree focuses on current clinical practice, and has been designed to provide you with the necessary academic requirements to enable you apply to become a registered biomedical scientist with the [Health and Care Professions Council \(HCPC\)](#).

Our Biomedical Science degree covers a range of disciplines, including microbiology, physiology, and immunology, as well as common aspects of medicine and care, such as blood transfusions, and explores the impact on the human body of elements such as exercise, temperature, and disease.

During your time on the course, you could:

- Undertake liver function tests
- Learn how to set up and read an ECG
- Determine your own blood group
- Undertake research to explore new clinical treatments

- Practice key techniques used in pathology laboratories like preparing and staining tissue samples and examining serum samples.

Both the BSc Biomedical Science (3 year) course and BSc Applied Biomedical Science (4 year course) are accredited by the IBMS and RSB.

## **Placement year**

By studying at Aston, you'll have the opportunity to gain invaluable real-world experience in the NHS, or industry through an optional placement year, giving you the platform for a career that saves and transforms lives.

Designed to make you stand out in the graduate crowd, you could undertake a placement in a hospital, industrial or research laboratory, or in a non-laboratory setting.

Our students have completed placements in:

- Clinical trial companies
- Research institutes
- Pharmaceutical companies
- Medical sales
- Biotechnology companies
- NHS organisations

## **International students and post-study work visa**

Aston University is a diverse, close community and welcomes international students. Students from over 120 different countries choose to study with us every year and Aston is not only a great place to study, based in the centre of Birmingham it's also a great place to live.

The new post-study work visa enables international students to remain in the UK for two years after they have completed their studies to find work. For more information visit the [government website](#).

For international students intending to do a foundation year, visit [ONCAMPUS](#).

## **Course outline**

Studying Biomedical Science at Aston University aims to provide you with the skills required in order to provide healthcare, undertake medical research, and also understand the pharmaceutical industry. You'll develop a thorough knowledge of the core principles of how the human body works, and a deep understanding of the vital role biomedical scientists play in the healthcare sector.

Our teaching is research-led, meaning that you will learn about the research our world-leading academics are undertaking, particularly in your final year. We also make sure you gain exposure to experienced biomedical scientists via guest lectures, so you can hear first-hand what this rewarding role is really like.

From your first year at Aston, you'll learn more about the careers available to graduates with Biomedical Science degrees, as well as spending time reflecting on the skills acquired and needed for your future career.

## Modules

### Year 1

Learn from a range of bioscience academics and complete a number of specialist sessions with practicing biomedical scientists. You'll study the key biology topics that will form the basis of your biomedical science education, preparing you for specialist modules in later years. You will also develop the knowledge to undertake laboratory work safely.

Core modules:

- **Biomolecules**
- **Cells to Systems**
- **Microbiology and Genetics**
- **Metabolism and Physiology for Biomedical Science**

### Year 2

Study new specialist subject areas and revisit previously studied topics at a deeper level. You'll learn how to select appropriate experimental approaches and test hypotheses, in addition to participating in Problem Based Learning (PBL), where you (as part of a group) will be set a problem and asked to provide a solution through independent research.

Core modules:

- **Clinical Sciences**
- **Mechanisms of Pathology**
- **Cell Signalling and Physiology**
- **Clinical Genetics and Human Disease**

### Placement

Placement year (optional)

Gain valuable career boosting experiences by setting your studies in a real-world context of a working environment alongside professionals.

All students enrol onto the BSc Biomedical Science (3 year) course without placement.

Students who go on to achieve minimum set grades during their degree and complete an accredited placement will graduate with a BSc Applied Biomedical Science qualification and be eligible to apply to the Health and Care Professions Council (HCPC) for registration as a biomedical scientist. This opportunity is available to all home, EU and international students on the course as long as they meet the requirements listed here.

For students who wish to practice as a biomedical scientist in the NHS, this year is your opportunity to complete an IBMS registration training portfolio in a UKAS accredited CPA hospital laboratory.

The availability of NHS placements is limited and highly competitive. You will have to undergo an enhanced Disclosure and Barring Service (DBS) check and occupational health checks; the cost of these checks will be payable by the student.

### Final Year

You will acquire the skills required to undertake an individual original research project, study a small number of advanced topics, in addition to critically reflecting on the enhancement of patient care and the importance of codes and acts in the area of biomedical science.

Core modules:

- **Immunology and Inflammation**
- **Clinical and Food Microbiology**
- **Research Project Preparation**
- **Research Project**
- **Professional Skills for Biomedical Scientists.**

In addition you will complete one of the following two modules\*:

- **Cancer Biology**
- **Bench to Bedside.**

\*Please note the availability of any optional modules will be subject to staff availability and a minimum number of students who express an interest in studying the optional modules.

## Entry requirements

### GCSEs

Five GCSEs which must include Maths and English Language or English Literature all at grade C/4. Please note we do not accept Key skills or Functional Skills in place of these.

### A Levels

- **BBB in three A Level subjects including Biology.**
- **BBC in three A Level subjects including Biology and B in either Core Maths or Extended Project Qualification (EPQ).**
- **BCC in three A Level subjects including Biology for our [contextual offer scheme](#).\***

The following subjects will not be considered as one of the core three A Levels - General Studies, Critical Thinking, Citizenship Studies.

We welcome applications from students who have tried to improve their examination grades by taking resits and only your latest grades will be accepted. We treat these applications in exactly the same way as other applications.

### BTEC

Contextual offer applicants need to achieve a grade C as listed below.

BTEC qualification name*	BTEC grades required	A Level requirements
Extended Diploma		This BTEC must be RQF – National in Applied Science D*D*D* (you do not require an additional A Level)
	Distinction*, Distinction*, Distinction*	OR
	OR	This BTEC must be QCF in Applied Science DDD and you must also achieve grade B in A Level Biology
Diploma (QCF) National Diploma	Distinction, Distinction (DD)	OR
		Distinction, Distinction, Distinction plus A Levels
Subsidiary Diploma (QCF)		
National Extended Certificate	Distinction (D)	With this BTEC you must also achieve grades BB in two A Levels of which one must be Biology.
90 Credit Diploma (QCF)	Distinction, Distinction (DD)	With this BTEC you must also achieve grades BB in two A Levels of which one must be Biology.
National Foundation Diploma	Distinction (D)	With this BTEC you must also achieve grades BB in two A Levels of which one must be Biology.

\*Please note that on the UCAS application form QCF BTEC Extended Diploma appears under the name BTEC Extended Diploma (QCF) and the RQF BTEC Extended Diploma appears under the name Pearson BTEC Level 3 National Extended Diploma (1080) (2016 to Present). If you are unsure of which qualification you are taking, please contact your school or college provider to confirm.

## T Level

We do not accept this qualification for this course.

## **International Baccalaureate Diploma**

**Standard offer:** 31 points overall and must include grades 5, 5, 5 in Higher Level subjects which must include Biology. You must also have Standard Level grade 5 in both Mathematics and English Language.

**Contextual offer:** 28 points overall and must include grades 5, 4, 4 in Higher Level subjects which must include Biology. You must also have Standard Level grade 5 in both Mathematics and English Language for [contextual offer students](#).\*

## **Access to Higher Education**

We accept the QAA-recognised Access Diploma which must consist of 45 credits at Level 3. You must obtain a minimum of 30 distinction and the rest must be at merit or distinction. Please note that we do not accept the English and Maths components within the Access qualification, and you must meet the GCSE entry requirement. Subjects Accepted: Applied Science, Biology combined with Chemistry, Biomedical Science, Biosciences, Combined Sciences, Health Sciences, Health Sciences Professions, Life Sciences and Sciences, and Medicine and Healthcare Professions.

Please note we do not accept Health and Social Care as it does not contain the amount of core science material required for subsequent undergraduate studies on this degree.

## **International Students**

### **International qualifications**

Applicants whose first language is not English will be required to provide evidence of an English language qualification. Find out more about our [English language requirements](#). International students can discover more about the qualifications we accept on our [international pages](#).

### **International foundation programmes**

If you do not meet our entry requirements, we have a range of [pathway programmes](#) offered by our partner, ONCAMPUS Aston, which you can complete to progress onto one of our degrees.

## **Other**

## **Degree**

### **Year 1**

We consider applicants for year 1 entry who are undertaking a degree in a related field elsewhere. You must meet the GCSEs and A level (or equivalent) requirements as listed. Alongside this you must have

gained (or be expected to gain) 60% overall and 120 credits with no fails at another recognised university.

In order to be considered you will need to submit a UCAS application as we do not accept direct applications, and this must include an academic reference.

### **Year 2 / year 3 / final year**

We are not taking applications for Year 2, Year 3 or Final Year transfers.

### **View our transfers policy**

For further information regarding the transfers policy and Student Transfer Arrangements please see [here](#).

### **Age of qualifications**

Applicants must normally have achieved their eligible academic qualifications for entry onto this course within the last three years. Applicants presenting qualifications older than three years will be considered on a case-by-case basis by the Academic Admissions Lead.

### **External Foundation Programmes from another University**

We consider external foundation programmes for entry into our year 1 programmes on a case-by-case basis. We will always require applicants to have met the following criteria prior to application:

- 5 GCSE's at grade C/4 or above including Maths and English.
- CCC at A Level, must include Biology

Any conditional offers made will be based on meeting a specific grade in your foundation programme. In order to be considered you will need to submit a UCAS application as we do not accept direct applications.

### **Ministry of Defence**

Aston University welcomes applications from candidates who intend to join the Ministry of Defence via the Army, Navy or Air Force. They are required to meet entry requirements as listed above. If your qualifications are not listed please email copies of your certificates, transcripts, resume (CV) to [ugadmissions@aston.ac.uk](mailto:ugadmissions@aston.ac.uk) for further review. Please note we do not accept direct applications and you will be required to submit a UCAS form.

### **DBS and fitness to practise**

Full details of our DBS and fitness to practise regulations can be found [here](#).

### **[View our Admissions Policy](#) under the 'Respect' tab on our Principles and Policies page.**

Whilst the grades listed here are our entry requirements, we understand that predicted grades are only an estimate. We will therefore consider applicants with predicted grades that fall below these entry requirements if the application is of a high standard (however, initial offers will not be lower than stated above). We would also consider applicants with achieved grades of CCC and above which are below the listed requirements on a case



by case scenario if the application is of a high standard, strong academic reference and any gaps in study are explained.

\*For details on our Aston Ready contextual offer scheme, [please see here](#).

The information contained on this website details the typical entry requirements for this course for the most commonly offered qualifications. Applicants with alternative qualifications may wish to enquire with the relevant admissions teams prior to application whether or not their qualifications are deemed acceptable. For less commonly encountered qualifications this will be judged on a case-by-case basis in consultation with the academic admissions tutor.

## **Learning, teaching and assessment**

As a biomedical science student, you will be taught by our passionate academic experts in biosciences.

There is huge breadth of academic research undertaken across Aston which is integrated into our courses. It is this integration that gives Aston students a distinct advantage in their studies by ensuring we provide access to the latest trends, thinking, issues, and research.

You'll encounter a wide range of teaching approaches, from lectures, and group work, to practical sessions, and interactive workshops and tutorials.

Each year of study is worth 120 credits, with each credit being equivalent to 10 learning hours. The learning hours may include, but are not limited to: Lectures; seminars; tutorials; lab sessions; practicals; online activity; reading; other independent study; reflecting on assignment feedback; field trips; and work placements.

### **Assessments**

We utilise a wide range of assessments linked to learning outcomes, such as:

- exams
- essay writing
- practical and laboratory reports
- presentations
- peer assessment.

### **Key course staff**

Dr Joanne Gough

“Our dual Institute of Biomedical Science (IBMS) and Royal Society of Biology (RSB) accredited Biomedical Science degree focuses on current clinical practice. It has been designed to provide you with the necessary academic requirements to allow you to apply to become a registered biomedical scientist with the Health and Care Professions Council (HCPC). The course covers a range of disciplines, including microbiology, physiology, and immunology, as well as common aspects of medicine and care.”

**Interim Programme Director  
Dr Joanne Gough**

Programme Director: Dr Charlotte Law

## Fees and scholarships

**UK students (2023/24)**

**Annual tuition fees: £9,250**

**During placement year: £1,250**

**International students/EU students (2023/24) \***

**Annual tuition fees: £20,100**

**During placement year: £2,500**

\*The United Kingdom government has confirmed that European Union (EU), other European Economic Area (EEA) and Swiss nationals commencing academic courses in England from August 2021 will no longer be charged the same tuition rates as Home students.

### Further information

Tuition fees are reviewed annually and may increase in subsequent years in line with inflation linked to the Retail Price Index (RPI) to take account of the University's increased costs of delivering the Programme. Any such increase shall always be in accordance with the law. When undertaking a placement year a placement year fee applies.

More information on fees <https://www2.aston.ac.uk/study/undergraduate/student-finance>

### Scholarships

At Aston University we are committed to supporting the most talented and hardworking students to achieve their potential by providing a range of scholarships to help lower tuition and living costs. Find out more about our scholarships here. <https://www2.aston.ac.uk/scholarships>

## Career prospects

Our Biomedical Science graduates often work in health, pharmaceuticals, or as HCPC registered Biomedical Scientists\* within the NHS. Others choose careers in scientific writing, research, or undertake further study, including teaching qualifications, MSc, PhD or graduate entry medicine.

Recent graduate employers include:

- GlaxoSmithKline
- National University Health Systems
- NHS trusts such as: Birmingham Women's and Children's Hospital, Queen Elizabeth Hospital Birmingham and University Hospitals Coventry and Warwickshire
- Public Health England
- Raffles Diagnostica
- Randox Testing Service
- Secondary schools
- The Binding Site.

\*If you complete an unaccredited placement, or choose not to complete a placement at all and later wish to practice as HCPC registered Biomedical Scientist, you will have to complete the following post-graduation:

- IBMS training and registration portfolio in an approved clinical laboratory
- Achieve a Certificate of Competence awarded by the IBMS

## Frequently asked questions

### **How does studying Biomedical Science at Aston University help prepare me for my career?**

Our course provides the ideal blend of theoretical grounding, technical skills development, and industry know-how to make you lab-ready for any industrial placement or career.

To ensure you gain a solid understanding of the range of careers available to you and the role that biomedical scientists play in the wider healthcare field, you'll be exposed to, and learn from a wide range of healthcare experts. This includes being taught by practising biomedical scientists and, where available, sessions with medical consultants, nurses, and patients about the role of biomedical scientists in patient care.

### **Will this course help me register as a professional Biomedical Scientist?**

Yes! When you successfully complete our four-year degree with an integrated placement year in a UKAS-accredited CPA hospital laboratory and successfully graduate with a BSc Applied Biomedical Science qualification; you will be eligible to apply to the Health and Care Professions Council for registration as biomedical scientist. You can also choose to complete your IBMS portfolio post-graduation. See our careers prospects section for more information.

### **Can I go on a placement year on this course?**

Yes, you can. The course is designed to make you stand out in the graduate crowd. You can undertake placements in laboratory settings such as hospital, industrial, or research laboratories, as well as non-laboratory settings. Aston have a dedicated Careers and Placements team who will provide you with ongoing support and an array of opportunities, including on campus placement fairs and CV surgeries, to help you source your placement.

Our students have completed placements in settings such as:

- Clinical trial companies
- Research institutes
- Pharmaceutical companies (eg. AstraZeneca and GlaxoSmithKline)
- Medical sales
- Biotechnology companies
- NHS trusts

### **What accreditation does this course have?**

Our BSc Biomedical Science course is accredited by the Royal Society of Biology (RSB) and the Institute of Biomedical Science (IBMS). The BSc Applied Biomedical Science qualification is also approved by the Health and Care Professions Council.

Our BSc Biomedical Science course is accredited by the IBMS and RSB.

### **What learning facilities can I expect?**

- Extensive and well-equipped laboratories with a variety of equipment designed to support your learning in an industry-relevant environment.
- 3D computer laboratories for virtual anatomy practicals
- Refurbished lecture theatres and seminar rooms
- Computer laboratories and a virtual learning environment used for general study, revision, and assessment. This platform allows you to access a comprehensive range of study materials, scientific journals, e-journals, databases, and Aston Library, fully refurbished and equipped for the digital age. Open 24 hours a day at key points throughout the year with a variety of study spaces, academic support advisors on hand and course texts available electronically or in book form.

### **Why should international students choose Aston University?**

Study at Aston University and you will be part of a multi-cultural community located at the heart of the dynamic city of Birmingham. Our courses are practical, inspired by industry and many have internationally recognised accreditations. Renowned for our employability prospects and connections to business and industry, we provide outstanding careers support, advice, and placement opportunities.

For those interested in working in the UK after they have graduated, the UK Government have created a new post-study work visa. For more information visit the government [website](#).

## Chat with current students

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[Birmingham startup FourPlus, with partners Hologlobe and Aston University, have been awarded funding from Innovate UK to create and test a virtual reality \(VR\) training platform for university life science students.](#)

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[Aston SU represents and supports around 14,000 students, providing a number of commercial and non-commercial services.](#)

### **Birmingham life**

[Aston University is in a great, central location. Ideally positioned in the centre of Birmingham - one of the youngest cities in Europe - our campus is only a 10 minute walk to the city centre.](#)

### **Clubs and societies**

[Joining a club or society is one of the best ways to get the most out of your time here at Aston. With over 130 student-led groups we have something for everyone.](#)

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[Here's Sports at Aston. Discover what's happening on the Aston University campus at the Sir Doug Ellis Woodcock Sports Centre.](#)

### **Student support at the Hub**

The Hub is a central location on the Ground Floor of the Main Building where most of the student support services are located.

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