

Lancaster  
University



Biomedicine and Biomedical Science  
Undergraduate Degrees 2026

# The science of saving lives

Biomedicine and biomedical science lie at the forefront of understanding human health and disease. Drawing on core disciplines such as cell biology, physiology, genetics and biochemistry, these degrees explore the scientific foundations of medicine and the mechanisms that drive illness, infection and treatment.

At Lancaster, you'll engage with cutting-edge research and use our excellent lab facilities to gain the skills to investigate the challenges facing modern healthcare.

When you study biomedicine or biomedical science at Lancaster, you will join our Department of Biomedical and Life Sciences.

With courses ranging from biology to neuroscience, pharmacology to biochemistry, you will become part of our thriving community of like-minded students.

It's where you will make life-long friends and memories in practical sessions.

It's where you will learn from renowned scientists.

And, it's where we will prepare you for life beyond Lancaster, developing your employability and ensuring you're ready to make an impact in your future career, whether that's within or beyond the lab.

Your time at university has the potential to shape the rest of your life. I want you to know that we are here to support and guide you every step of the way.



*Head of Department,  
Biomedical and Life Sciences*

**Professor Jackie Parry**



Lancaster's Biomedical Science degrees are accredited by the Institute of Biomedical Science (IBMS).




# Our *degrees*

## Biosciences at Lancaster

Biomedical Science and Biomedicine are part of a suite of biosciences subjects taught at Lancaster University.

- + **Biology** - our most flexible degree, encompassing the study of life from cells to animals, plants to whole communities and ecosystems.
- + **Biomedicine and Biomedical Science** – our most specialised courses, focussing on the study of human life processes and disease.
- + **Biochemistry** – uniting biology and chemistry to explore life at a molecular and cellular level.
- + **Pharmaceutical Science** - the design, formulation, development, manufacturing and evaluation of drugs.
- + **Pharmacology** – exploring how drugs interact with living systems and affect our bodies.
- + **Neuroscience** – combining biology and psychology to understand the nervous system's role in behaviour and brain disorders.
- + **Ecology and Conservation** – focussing on ecosystems, animal behaviour, evolution and global change biology.

## A level entry requirements

Biomedical Science	BSc	B990	3	AAB#
Biomedical Science	MSci	B992	4	AAA#
Biomedical Science (Study Abroad)	 BSc	B991	4	AAB#
Biomedical Science (with a Foundation Year)	BSc	B99F	4	CCC##
Biomedicine	BSc	C701	3	AAB#
Biomedicine	MSci	C703	4	AAA#
Biomedicine (Placement Year)	 BSc	C708	4	AAB#
Biomedicine (Study Abroad)	 BSc	C709	4	AAB#
Biomedicine (with a Foundation Year)	BSc	C71F	4	CCC##

 Study abroad available  Industry placement available

# These courses require a GCSE in English Language (grade 4/C) and Mathematics (grade 5/B). Your A levels must include Biology and one other science subject from: Chemistry, Mathematics or Physics.

## These course require a GCSE in English Language (grade 4/C) and Mathematics (grade 6/B). Your A levels should include Biology, and one other science subject from: Chemistry, Mathematics or Physics.

## BTEC and International Baccalaureate (IB) entry requirements

Degree/Award	BTEC	IB
MSci	NA†	36 points≈
BSc	DDD††	35 points≈
Biomedical Science/Biomedicine (with a Foundation Year)	MMM††	27 points≈≈

† Only considered for entry to the BSc Hons course variant. Subject to academic progression and availability, students can transfer to the MSci course.

††DDD in Applied Science to include sufficient Biology and Chemistry content.

†††MMM considered on a case-by-case basis, and to include sufficient science units at Distinction.

≈16 points from the best 3 HL subjects, including 6 in Biology HL and 6 in one further HL science subject from Chemistry, Mathematics or Physics.

≈≈14 points from the best 3 HL subjects, including 4 in Biology HL and 4 in one further HL science subject from Chemistry, Mathematics or Physics.



# Made for *learning*

**Whether you want to understand the molecular function of cells, learn how the immune system protects us from infection, appreciate the role of genetics in human health or develop new treatments for disease, our Biomedicine and Biomedical Science degrees will provide you with the ideal foundation in modern biomedical research.**

Our **biomedical science degrees** are accredited by the Institute of Biomedical Science (IBMS) and prepare students for a career as a Biomedical Scientist working in NHS pathology labs in areas including haematology, microbiology, clinical biochemistry or histopathology.

The curriculum of our Biomedical Science degree is highly structured to meet the requirements of IBMS accreditation.

Our **biomedicine degrees** also enable you to study the underlying causes of human health and disease and offer more flexibility, with a choice of optional modules in addition to the core curriculum.

## **Learn from the experts**

You will be taught by our research-active academics whose vast biomedical research experience includes skin, colorectal, breast and prostate cancers; Alzheimer's disease; schizophrenia; chronic human conditions such as respiratory disorders; and infectious human diseases caused by viruses, bacteria and parasites.

In our biomedical science degrees, you will also be taught by practising Biomedical Scientists from local hospitals, meaning you will graduate with an excellent understanding of the subject and a strong insight into life as a biomedical professional.

## **Teaching and learning**

Lectures introduce the key issues and findings in each topic and are delivered by subject-matter experts, while interactive workshops use problem solving, computer labs, group work or scientific literature to give you a solid understanding of the theory covered in lectures.

Lab practicals are an important part of your degree and are where you will learn the techniques to become a biomedical scientist and apply your learning to real-world scenarios. You will also have small group tutorials to support you in developing the key skills needed for your degree. Your Academic Tutor is here to help you with academic queries, pastoral support and careers advice.

## **Test your knowledge**

The assessment process varies across modules and includes laboratory reports, essays, independent project reports, group presentations, multiple-choice tests and exams. Assessment is an ongoing process, rather than being left solely until the end of the degree. This means we offer feedback to you throughout your degree as part of your preparation for end-of-module exams.





**3<sup>RD</sup>**

**3rd overall for  
Biomedical Sciences**

**Guardian University Guide**

**2025**



## **Rachel, third-year student**

### **Biomedical Science BSc**

I learnt essential skills in the lab that provided me with confidence and an understanding of how to use lab equipment. This has been extremely helpful for carrying out practicals throughout my degree.

Having completed an internship and now going on to carry out my research project, the skills I learnt and implemented in the lab, such as micropipetting, learning how to make dilutions and centrifuging, still play a hugely important role in many of the experiments I execute.

Furthermore, I have learned good clinical laboratory practice, which, if working in a lab, is non-negotiable.





# IBMS Accreditation and *your placement*

Our IBMS-accredited biomedical science degrees are a great choice if you are considering a career as a Biomedical Scientist in the NHS, as the course meets the Health and Care Professions Council (HCPC) educational standards required to register as a Biomedical Scientist in a UK healthcare laboratory.

To register with the HCPC, you will need to complete a training portfolio. You have two choices as to how you do this.

## 1. Complete a training placement during the third year of your BSc

As a student on our IBMS-accredited Biomedical Science (BSc) degree, you will be eligible to apply for a prestigious placement with an NHS pathology lab. These are awarded on a competitive basis. If you are successful, you will be transferred onto our BSc Biomedical Science (Placement Year) degree and will complete your placement during the third year of your degree. After completing your placement, you will return to university for your final year of study, following the curriculum of our third-year Biomedical Science BSc.

Students who complete a training portfolio during the placement year and graduate with an accredited biomedical science degree are awarded an IBMS Certificate of Competence.

## 2. Complete your training portfolio after graduation

Your IBMS-accredited degree will provide you with the necessary qualification to apply for a trainee post as a trainee Biomedical Scientist in an NHS pathology lab and complete an IBMS training portfolio while in employment.



*Trainee Clinical Scientist  
on the NHS Scientist  
Training Programme*

*Gained HCPC  
registration as a  
Biomedical Scientist*

*Completed  
IBMS portfolio  
while working as an NHS  
Medical Laboratory Assistant*

*MSc Biomedicine,  
Lancaster University*

*BSc  
Biomedical Science  
(IBMS-accredited degree),  
Lancaster University*

## **Santosh, graduate**

**Biomedical Science BSc**

**Biomedicine MSc**

My career journey so far has been one of rapid progression and continuous learning. Graduating with a BSc in Biomedical Sciences and then an MSc in Biomedicine, I got a job as an NHS Medical Laboratory Assistant in Clinical Biochemistry.

The hands-on experience I gained in the lab sessions during my degree at Lancaster translated directly to the skills I needed in a professional clinical setting.

This early experience provided me with a strong foundation in laboratory practice. It enabled me to

complete my IBMS registration portfolio, demonstrating competency against national standards, and achieve HCPC registration as a Biomedical Scientist.

Since then, I have secured a place on the competitive NHS Scientist Training Programme (STP) in the same laboratory as a trainee clinical scientist.

The course structure, the learning environment, and the support from the faculty at Lancaster fostered a proactive approach to learning and ultimately helped me to achieve my career goals.



# Gain *real-world* experience



Studying our Biomedicine (Placement Year) BSc is an ideal way to stand out in a competitive job market.

It's an opportunity to develop valuable, hands-on experience in your chosen field and see how the academic theory you learn during your degree translates into real-world application.



Placements are paid, professional-level roles, lasting between ten and 12 months. We will use all reasonable effort to support you in finding a suitable role for your placement year, drawing on our strong links with organisations across healthcare, industry and research.

At present, students only pay 20 per cent of the standard tuition fee in the year of their placement. Please see our website for full details.

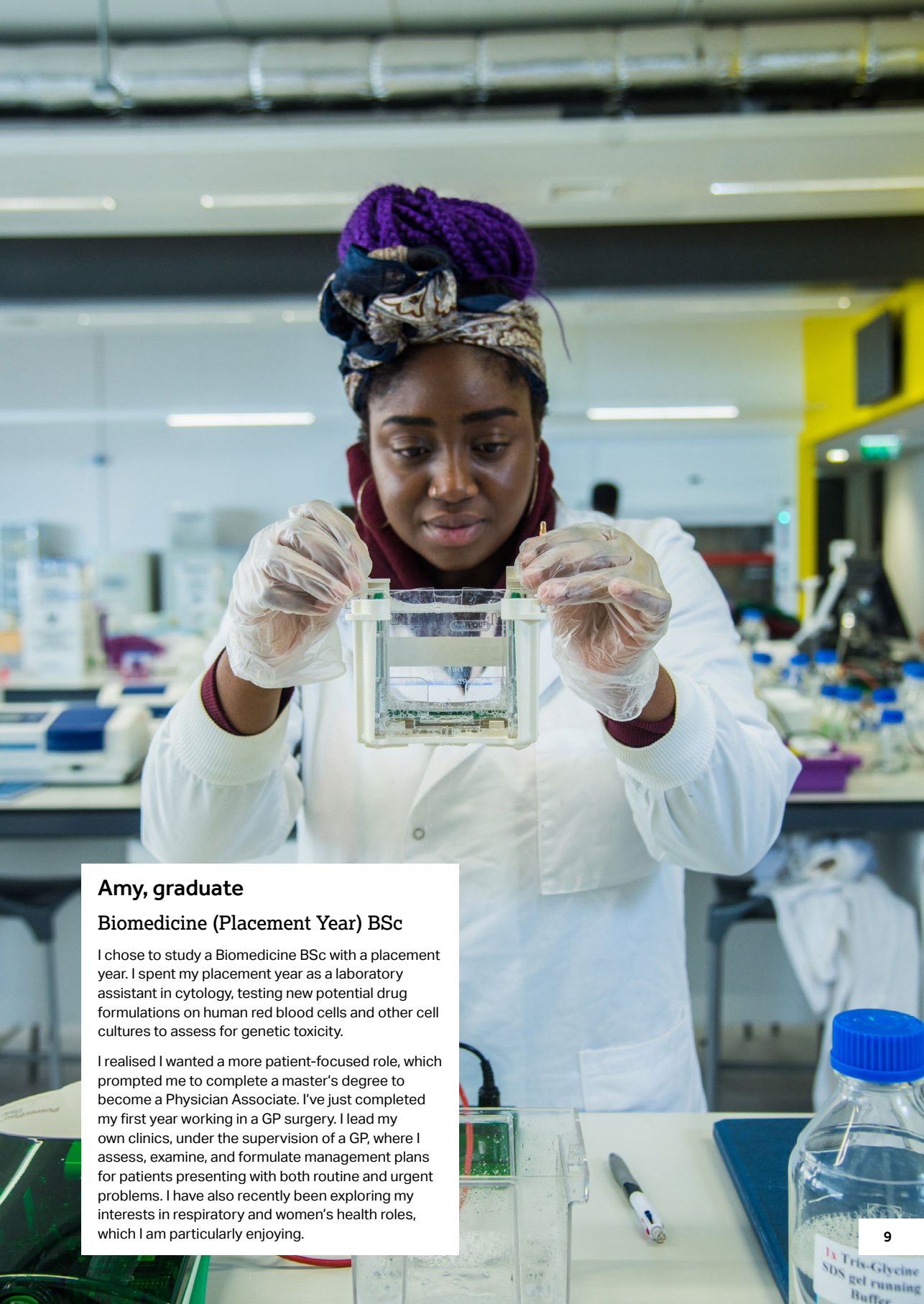
## **Five reasons to take a placement year**

1. Try out your ideal job
2. Build a network of professional contacts
3. Grow in confidence
4. Boost your CV
5. Maybe even secure a job offer after graduation!

## **Biosciences internships at Lancaster**

You can also apply for a paid summer internship in our department, helping you to gain additional research experience. Past interns have worked on research topics including Alzheimer's disease, cancer biology, immunology, microbiology and infectious diseases.





## Amy, graduate

### Biomedicine (Placement Year) BSc

I chose to study a Biomedicine BSc with a placement year. I spent my placement year as a laboratory assistant in cytology, testing new potential drug formulations on human red blood cells and other cell cultures to assess for genetic toxicity.

I realised I wanted a more patient-focused role, which prompted me to complete a master's degree to become a Physician Associate. I've just completed my first year working in a GP surgery. I lead my own clinics, under the supervision of a GP, where I assess, examine, and formulate management plans for patients presenting with both routine and urgent problems. I have also recently been exploring my interests in respiratory and women's health roles, which I am particularly enjoying.



Lancaster is a truly international university, with students and staff from over 100 different countries and partner institutions around the world.

Your global experience is about living and learning with people from different cultures, whether through your course, your college or your Students' Union.

# Your global *experience*

**Choosing either Biomedical Science (Study Abroad) or Biomedicine (Study Abroad) is a fantastic opportunity to see the world, grow in confidence, and become an even more employable graduate.**

**You will spend your third year studying at one of our trusted partner institutions in either North America or Australasia.**

During your year abroad, you'll experience a different culture and society and return with a more global world view. It's also a chance to gain new perspectives on biomedical science and biomedicine.

You will choose specialist modules relating to your degree. You might also have the option to study modules from subjects offered by the host university that are specific to that university and country.

Altogether, your global experience will see you return to Lancaster in your final year as a more well-rounded, confident and employable version of yourself. This fourth year of your studies will follow the same curriculum as the final year of our three-year Biomedical Science BSc or Biomedicine BSc degrees.

At present, students only pay 15 per cent of the standard tuition fee during their study abroad year. Please see our website for full details.



Visit [lancaster.ac.uk/study-abroad](https://lancaster.ac.uk/study-abroad) to see a full list of the overseas institutions with which we currently have a partnership arrangement.



I didn't really choose Lancaster, it chose me.

From the second I stepped onto the campus for the first time, I knew I'd found my home for the next three years. It just felt right. The campus is so inviting, and the people are so friendly, it feels like home.

The diversity of modules taught throughout my biomedicine degree have reignited my love for learning.

It has allowed me to discover my enjoyment for topics such as genetics and follow that interest throughout my degree. I've felt so well supported by my lecturers and advisors alike that I've been able to reach my full potential here.

“

*The diversity of modules taught throughout my biomedicine degree have reignited my love for learning.*

”

Katie, third-year student  
Biomedicine BSc

# A *hands-on* degree

Our state-of-the-art life science teaching laboratories are where you'll put the knowledge you've acquired from lectures and tutorials into practice, and where you'll get to know your coursemates and academics while developing the core practical skills of a modern scientist.





Through guided practical sessions, you'll develop a wide range of techniques that will support your understanding how cells, organs and systems function in the body.

These experiences form a strong foundation for careers in biomedical science and biomedicine, giving you the confidence and skills to make an impact.

### **Life sciences labs**

You will participate in practicals in our fantastic life sciences labs. Here you will learn to use sophisticated equipment to explore how biological systems work and investigate health and disease.

You will also have access to equipment including:

- + microscopes
- + spectrophotometers
- + microplate readers
- + centrifuges
- + DNA, RNA and protein gel electrophoresis and visualisation equipment
- + Polymerase chain reaction (PCR) thermocyclers
- + cell culture incubators
- + fume hoods
- + microbiology and histology preparation areas

### **World-class facilities**

Depending on your choice of modules or research project theme, you may also use some of the following labs and facilities:

#### **Bioimaging suite**

Explore the microscopic world using cutting-edge confocal and electron microscopes. From observing live cells to analysing complex tissues, you'll carry out real experiments using the same tools as researchers, developing essential skills and insights that prepare you for careers in research, biotechnology, and biomedical science.

#### **Flow cytometry**

You'll use cutting-edge flow cytometry tools to analyse thousands of cells per second. By tagging cells with fluorescent markers, you can assess their size, shape, and function. This powerful technique helps you explore immune responses, detect disease and develop lab skills essential for careers in biomedical research and diagnostics.

#### **Cell culture**

You'll learn to grow and work with living cells in a controlled lab environment. Using incubators, safety cabinets and microscopes, you'll study how cells behave and respond to treatments. These essential skills prepare you for careers in areas like cancer research, drug development and regenerative medicine.



### **Histology suite**

Our histology facilities let you explore the structure of tissues and organs at a microscopic level. You'll learn to prepare and stain tissue samples to highlight different cell types and structures. These techniques help you to understand how healthy tissues are organised, and how conditions like cancer change them at a cellular level.

You'll train on professional instruments including the Excelsior tissue processor, Leica embedding station, cryostat, microtome, and vibratome. Learning how to safely and accurately handle tissue samples builds essential skills for pathology, diagnostics, and medical research.

### **Molecular biology**

You'll gain hands-on experience with PCR, a key technique for amplifying DNA. You'll prepare samples, run reactions, and interpret results, skills that are essential for genetic research and diagnostics. Understanding how to replicate and study genes in detail builds a strong foundation for careers in molecular biology, forensics, and medical science.

### **Protein purification and characterisation**

You'll explore how proteins, the essential building blocks of life, are studied using advanced lab equipment. You'll learn to separate proteins from complex mixtures, assess their purity, and investigate their properties and functions. This hands-on experience will deepen your understanding of biological processes and prepare you for careers in drug development, research and biotechnology.

# Biomedical Science

**BSc Hons, MSci Hons**

**Our IBMS-accredited biomedical science degrees provide rigorous research-led teaching in the theory and practical techniques associated with biomedical science. They are highly-structured courses where, to meet the requirements of registration, most modules are core.**

In **Year 1**, you will study fundamental themes that will provide you with a firm foundation for the rest of your course.

In **Year 2**, you will progress onto studying the topics that are core to the discipline of biomedical science, including haematology and transfusion science, clinical biochemistry, medical microbiology and cellular pathology, as well as genetics, immunology and cell biology.

**Year 3** will see you focus in greater depth on specific aspects of human disease through themes spanning clinical immunology, cancer, medical genetics, pathobiology and global health challenges. You will also carry out your own independent research project.

If you are studying for an integrated master's degree, in **Year 4** you will gain additional practical skills by undertaking another more in-depth research project and can tailor your choices to the interests you have developed during the first three years of study.

## Enhancing your curriculum

We continually review and enhance our course curricula to ensure we are delivering the best possible learning experience, and to make sure that the subject knowledge and transferable skills you develop will prepare you for your future. Information within this publication with respect to courses and modules is correct at the time of publication, and the University will make every reasonable effort to offer courses and modules as advertised. In some cases, changes may be necessary and may result in new modules or some modules and combinations being unavailable, for example as a result of student feedback, timetabling, staff changes and new research.



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biomedical-science/](http://lancaster.ac.uk/biosciences/biomedical-science/)



## Year 1

### Core modules

#### Introduction to Biosciences

Gain the essential skills required to support your studies in the biosciences. Get hands-on experience of laboratory skills and equipment and learn how to conduct ethical research, analyse data and present your findings.

#### Molecules to Cells

Learn how organisms synthesise simple organic molecules to store energy and genetic information, how they copy the genome to next-generation cells and how defects in this process can promote cancer.

#### Anatomy and Physiology

Explore the anatomy and physiology of key body systems and examine the structure-function relationships of the organs and tissues that protect, sustain, and maintain the body in health.

#### Genetics and Biotechnology

In this module, you will examine the molecular basis of inheritance, genome sequencing and how DNA damage can lead to genetic mutations. Discover how key molecular biotechnologies are transforming research, healthcare, and industry.

#### Microbes, Pathogens and Immunity

Learn about harmful and beneficial microbes and how the human host responds to pathogenic microorganisms, the intricate relationship between pathogens and human health, and how pathogens cause disease.

#### Foundations of Biomedical Science

Biomedical Scientists working in healthcare laboratories play essential roles in diagnosing diseases and evaluating the effectiveness of treatments. You will be introduced to key biomedical laboratory specialisms and become familiar with the screening, diagnosis, treatment, and management of a range of diseases.



# Biomedical Science (continued)

## Year 2

### Core modules

#### Clinical Biochemistry, Haematology and Transfusion Science

Gain theoretical and applied knowledge about how to interpret laboratory test results that underpin patient diagnosis and management, including across a range of across a range of blood and major body systems disorders.

#### Microbiology and Immunology

Learn how our indigenous microbes help with numerous physiological functions, protect us from pathogens and how they tolerated by our immune system. You'll also look at the pathogenic mechanisms of a range of microbes, learn about our natural defences and examine interventions to control infections.

#### Biochemistry of Cellular Metabolism

Study the structure and function of biomolecules and their roles in metabolic pathways and other essential cellular mechanisms. Learn the molecular underpinnings of human health and how disruptions in biochemical pathways contribute to disease.

#### Cellular Pathology and Medical Microbiology

Develop your knowledge of how clinical microbiology and cellular pathology are used to diagnose disease, appreciate the importance of quality control within the labs, and learn how Biomedical Scientists must meet HCPC profession-specific standards.

#### Cell and Developmental Biology

Explore the intricate processes through which cells respond to environmental and developmental signals, explore the interactions between cells and their surroundings, and how disruptions in these mechanisms contribute to developmental disorders and disease.

#### Molecular Genetics

Gain a deep understanding of the molecular processes that underpin the normal function of genes and genomes. You'll gain insight into the crucial role epigenetics plays in the genome and learn about how mutations arise in genomes and their effects on human health.

## Year 3

If you choose our Biomedical Science (Study Abroad) BSc, or choose to take a placement year during your Biomedical Science BSc, you will study the modules detailed below when you return to Lancaster for your fourth year of study.

### Core modules

#### Biosciences Research Project

The research project provides you with first-hand research experience and the opportunity to immerse yourself in an area of biomedical science that fascinates you. You'll receive one-to-one support from a member of academic staff and training in research methods to support your investigation.

#### Cancer Biology and Therapeutics

Examine the fundamental genetic causes of cancer and discover how modern genomics is transforming our understanding and treatment of this disease. You'll explore genetic and environmental factors, learn about cancer prevention strategies, screening techniques and diagnostic methods, and explore the latest advances in cancer treatment.

#### Medical Genetics and Clinical Immunology

Covering the genetic basis for diseases, the role of a clinical geneticist, the variety of diagnostic approaches and the future of genetics in medicine, this module will deepen your knowledge of clinical genetics and immunology. You'll explore the genetic and environmental factors underlying autoimmunity and allergy, and the molecular basis of immunodeficiencies.

#### Global Health Challenges

Whilst scientific advances have led to improvements in human health over the past century, significant challenges remain. You will study challenges of global significance that will provide you with a real-world perspective on human health and the multi-disciplinary and collaborative approaches required to tackle these.

#### Pathobiology

Explore various diseases that affect human health, including neurodegenerative conditions like Alzheimer's and Parkinson's disease; arthritis; cerebrovascular disease; and diabetes. You'll investigate the molecular mechanisms of disease and the clinical investigations performed by Biomedical Scientists to diagnose disease and monitor the efficacy of therapeutic interventions.





#### **Year 4**

**For students studying Biomedical Science MSci only**

**In year four, you have just one core module, your integrated master's research project, and a range of optional modules.**

#### **Core modules**

##### **Biosciences Integrated Master's Research Project**

You will undertake an extended research project on a specific topic within your field of study. The project enables you to build on the research skills you developed during your third-year project, but further enhances your independence and experience of working in a research environment.

#### **Optional modules currently include**

- + Brain Disorders
- + Cancer – Bench to Bedside
- + Drug Development from concept to clinic
- + Emerging Therapeutics in Immunology
- + Neglected Tropical Diseases

Please see our website for further information about the options available.

# Biomedicine

**BSc Hons, MSci Hons**

**Our biomedicine degrees are also ideal for those interested in gaining a broad knowledge of human life processes within the context of health and disease. Whilst similar to a degree in Biomedical Science, this course offers flexibility to tailor your second- and third-year module choices to suit your interests.**

You will begin, in **Year 1**, by studying themes that will provide you with a firm foundation for the rest of your course.

In **Year 2**, you will study key topics in biomedicine in more detail, for example microbiology, immunology, molecular genetics, cell biology and cellular metabolism.

During **Year 3**, you will have greater choice in the modules you study (depending on the second-year modules you take) and may explore themes such as advanced drug design and development. You will also carry out your own independent research project.

If you are studying for an integrated master's degree, in **Year 4** you will gain additional practical skills by undertaking another more in-depth research project and can tailor your choices to the interests you have developed during the first three years of study.

## Enhancing your curriculum

We continually review and enhance our course curricula to ensure we are delivering the best possible learning experience, and to make sure that the subject knowledge and transferable skills you develop will prepare you for your future. Information within this publication with respect to courses and modules is correct at the time of publication, and the University will make every reasonable effort to offer courses and modules as advertised. In some cases, changes may be necessary and may result in new modules or some modules and combinations being unavailable, for example as a result of student feedback, timetabling, staff changes and new research.



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biomedical-science/](http://lancaster.ac.uk/biosciences/biomedical-science/)**



## Core modules

### Introduction to Biosciences

This module introduces you to the essential skills required to support your studies in the biosciences. You will gain hands-on experience of essential laboratory skills and equipment and learn how to conduct ethical research, analyse data and present your findings clearly and accurately.

### Molecules to Cells

Learn how organisms synthesise simple organic molecules to store energy and genetic information, how they copy the genome to next-generation cells and how defects in this process can promote cancer.

### Anatomy and Physiology

Explore the anatomy and physiology of key body systems and examine the structure-function relationships of the organs and tissues that protect, sustain, and maintain the body in health.

### Genetics and Biotechnology

In this module, you will examine the molecular basis of inheritance, genome sequencing and how DNA damage can lead to genetic mutations. Discover how key molecular biotechnologies are transforming research, healthcare, and industry.

### Microbes, Pathogens and Immunity

Learn about harmful and beneficial microbes and how the human host responds to pathogenic microorganisms, the intricate relationship between pathogens and human health, and how pathogens cause disease.

## Optional modules currently include

- + Foundations of Biomedical Science
- + Foundations of Pharmacology and Pharmaceutical Science

Please see our website for further information about the options available.



# Biomedicine (continued)

## Year 2

### Core modules

#### Microbiology and Immunology

Learn how our indigenous microbes help with numerous physiological functions, protect us from pathogens and how they tolerated by our immune system. You'll also look at the pathogenic mechanisms of a range of microbes, learn about our natural immune defences and examine interventions to control infections.

#### Biochemistry of Cellular Metabolism

Study the structure and function of biomolecules and their roles in metabolic pathways and other essential cellular mechanisms. Learn the molecular underpinnings of human health and how disruptions in biochemical pathways contribute to disease.

#### Cell and Developmental Biology

Explore the intricate processes through which cells respond to environmental and developmental signals, explore the interactions between cells and their surroundings, and how disruptions in these mechanisms contribute to developmental disorders and disease.

#### Drug Design and Development

Learn about different approaches for finding new drugs: from high-throughput screening of compound libraries to focused screens, virtual screens, and structure-based drug design. Gain an insight into challenges in assessing the efficacy and safety of new drugs.

### Optional modules currently include

- + Drug Design and Development
- + Fundamentals of Neuroscience
- + Life Cycle of Proteins
- + Pharmacology

Please see our website for further information about the options available.

## Year 3

**If you choose our Biomedicine (Study Abroad) BSc or Biomedicine (Placement Year) BSc, you will study the modules detailed below when you return to Lancaster for your fourth year of study.**

### Core modules

#### Biosciences Research Project

The research project provides you with first-hand experience of research and the opportunity to be immersed in an area of work. You'll receive one-to-one support from a member of academic staff, and the project is underpinned by training in research methods to support your investigation.

#### Cancer Biology and Therapeutics

Examine the fundamental genetic causes of cancer and discover how modern genomics is transforming our understanding and treatment of this disease. You'll explore genetic and environmental factors, learn about cancer prevention strategies, screening techniques and diagnostic methods, and explore the latest advances in cancer treatment.

#### Global Health Challenges

You will study challenges of global significance that will provide you with a real-world perspective on human health and the multi-disciplinary and collaborative approaches required to tackle these.

### Optional modules currently include

- + Advanced Drug Design and Development
- + Advanced Neuroscience - Circuits and Systems
- + Biology of Ageing
- + Cell Signalling in Health and Disease
- + Medical Genetics and Clinical Immunology
- + Ethics in Biomedicine
- + Pathobiology
- + Protein Bioinformatics

Please see our website for further information about the options available.





**Year 4**  
For students studying Biomedicine MSci only

#### **Core modules**

##### **Biosciences Integrated Master's Research Project**

You will undertake an extended research project on a specific topic within your field of study. The project enables you to build on the research skills you developed during your third-year project and further enhances your independence and experience of working in a research environment.

#### **Optional modules currently include**

- + Brain Disorders
- + Cancer – Bench to Bedside
- + Drug Development from concept to clinic
- + Emerging Therapeutics in Immunology
- + Neglected Tropical Diseases

Please see our website for further information about the options available.

# Hello *future!*

**Both biomedical science and biomedicine open up a host of career opportunities, both with the lab and in wider roles in the sciences and other sectors.**

## **Careers with a degree in biomedical science**

Our IBMS-accredited Biomedical Science BSc is a path to employment as a Biomedical Scientist in the NHS. As well as this specific career path, you will build the skills and knowledge to open many other doors in the sciences and beyond, including research-based careers investigating causes and treatment of human diseases and conditions.

### **Potential career paths**

Our graduates have gone on to a variety of roles in the NHS, research laboratories and the pharmaceutical industry, including those below\*:

- + Biomedical Scientist
- + Clinical Trials Coordinator
- + Haematology Associate Practitioner
- + Healthcare Science Assistant
- + Histology Scientist
- + Medical Doctor (following a graduate-entry degree in medicine)

\* Some of these roles require further training.



## **Careers with a degree in biomedicine**

Our biomedicine degrees open up a wide variety of careers investigating human diseases and conditions. You will become competent in experimental design, gain practical lab skills and become adept in statistical analysis, data recording and presentation skills.

And, because professional skills are embedded throughout our curriculum, you will develop wider expertise valued by employers, including project management and problem-solving skills and ethical and environmental awareness.

### **Potential career paths**

Our biomedicine graduates have gone on to a variety of roles in laboratories, the NHS and the pharmaceutical industry, including\*:

- + Research Scientist
- + Senior Clinical Trials Coordinator
- + Consultant for Pharmaceutical and Biotech Industry
- + Data Quality Coordinator
- + Medical Doctor (following a graduate-entry degree in medicine)
- + Life Sciences Sales Executive
- + Medical Laboratory Assistant
- + Microbiologist
- + Science Teacher
- + Medical Writer

\* Some of these roles require further training.

Students who wish to enter the NHS as a Biomedical Scientist should consider our Biomedical Science degrees (BSc or MSci), which are accredited by the Institute of Biomedical Science and are a pathway to employment as a Biomedical Scientist in the NHS.

### **Careers beyond the labs**

Many of our biomedicine and biomedical science graduates have looked beyond the sciences and pursued successful careers such as:

- + NHS Manager
- + Finance Manager
- + Accountant





### **NHS Scientist Training Programme**

Amongst a wealth of other careers, degrees in both subjects are an ideal basis for applying for a highly sought-after place on the NHS Scientist Training Programme. You may also wish to undertake further training to become a Physician Associate. Visit the NHS website for more details.

### **Postgraduate study**

Postgraduate study in an area you are passionate about is another common option for our biomedicine and biomedical science graduates, including master's degrees and PhDs in fields such as cancer research, neuroscience, microbiology or immunology.



Biomedical and Life Sciences  
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