UNIVERSITY OF LIVERPOOL

MBiol

Biomedical Sciences

UCAS code C133

Entry requirements	Study mode	Duration
A level: ABB	Full-time	4 years

Apply by: **29 January 2025**
Starts on: **22 September 2025**

About this course

This programme provides a broad-based education in biosciences related to medicine and medical research, and offers great flexibility of module choice so that you can tailor elements of your degree to your own particular interests.

Introduction

The Master of Biomedical Sciences (MBiol) is a four-year programme, in which students first follow the three-year BSc in Biomedical Sciences and then continue into a fourth year, subject to performance.

In the first three years, you'll study a broad range of modules including from across the spectrum of the Biomedical Sciences disciplines, which include Biochemistry, Genetics, Immunology, Microbiology, Physiology, and Pharmacology. You will also have the opportunity to specialise and carry out your own research project.

The fourth (Master's) year aims at developing enhanced research and personal skills for students seeking a high-level career in research (e. g. studying for a PhD or working in industry) or those seeking to enhance their qualification. Students will join a research team to undertake a significant research project. Students can also apply for a six-week summer research internship in the UK or overseas or apply to spend time working in industry or in other enterprises in the final year.

What you'll learn

- Develop practical and theoretical knowledge of the core biomedical sciences disciplines covering elements of both health and disease.
- Develop a range of practical laboratory and research skills commonly used in the Biomedical Sciences.
- Enhance your understanding of contemporary issues, ethical challenges, and professionalism in the sphere of the Biomedical Sciences.
- Develop the skills required to evaluate your own performance and working standards.
- Analyse, evaluate, and place your work in the context of the wider scientific community.
- Become literate in finding, interpreting, evaluating and managing information
- Communicate ideas effectively to a variety of audiences
- Work independently and collaboratively
- Develop critical thinking and problem-solving skills
- Use lab equipment correctly and safely
- Plan, initiate, and carry out projects

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Course content

Discover what you'll learn, what you'll study, and how you'll be taught and assessed.

Year one

In this first year, you will commence your transition from learner to student. You'll start by gaining an understanding of core concepts of biology as well as the fundamental principles of immunity, infection, and therapy. You will also study how organisms develop and function, and learn about ecology and the global environment. You will develop practical skills, and you will discover how to utilise quantitative skills and study techniques. This year allows you to start to see how the Biosciences fit together, and importantly where the Biomedical Sciences fits in this awesome jigsaw.

COMPULSORY MODULES

- Biology core concepts, principles, and fundamentals BIOS101
- Development, function, immunity, infection, and therapeutics BIOS102
- Introductory Practical Skills for Life Sciences BIOS103
- From Individuals to Ecosystem BIOS104
- Study and Communication Skills Tutorials BIOS105
- Applied Practical Research Skills for Life Sciences BIOS106

Programme details and modules listed are illustrative only and subject to change.

Year two

In your second year you'll expand your range of knowledge building those essential research skills, experimental design and analysis together with professional skills preparing you for a career within or outside the area of biomedical sciences. You will study in the disciplines of Physiology, Biochemistry, Immunology, and Genetics. In addition, you will start to tailor your degree with optional modules enabling you to follow your interest in Biochemistry, Cancer Biology, Microbiology & Infection, or Pharmacology.

COMPULSORY MODULES

- Genetics, Microbiology & Infection BIOS201

- Intermediary Practical Research Skills for Life Sciences BIOS203
- The Cellular Basis of Health & Disease BIOS209
- Chemistry for Life Sciences BIOS215
- Cellular and Systems Physiology BIOS214
- Academic & professional skills tutorials BIOS205

OPTIONAL MODULES (CHOOSE ONE)

- Biomolecular / Biochemistry / Pharmacology Practical BIOS204
- Microbiology, Infection & Disease BIOS206

OPTIONAL MODULES (CHOOSE ONE)

- Metabolism BIOS212
- Drug Discovery & Development BIOS216
- Molecular Microbiology & Therapeutics BIOS218

Programme details and modules listed are illustrative only and subject to change.

Year three

Year three will provide an unparalleled opportunity for you to learn at the cutting edge of biomedical sciences research and be taught by world-leading academics in the subjects of biochemistry, immunology, microbiology, physiology, and pharmacology. You will also have the opportunity to take a physical or virtual placement. Central to this year is the capstone research project where you will plan and execute your own research, analyse, and critically evaluate data and communicate your research findings in your chosen specialisation.

COMPULSORY MODULES

- Research Project BIOS301
- Introduction to the World of Work BIOS302
- Research Methods BIOS303
- Applied Biomedical Sciences BIOS310
- How do cells make decisions? BIOS331

OPTIONAL MODULES (CHOOSE TWO)

- Molecular, Clinical & Translational Cancer BIOS307
- Molecular Systems Biology BIOS309
- Translational Pharmacology BIOS313

- Genomics and Evolution of Microbes BIOS317

Programme details and modules listed are illustrative only and subject to change.

Year four

The fourth year of study offers great flexibility – students may spend it entirely on campus at Liverpool, but more commonly they take up opportunities to broaden their experiences, for example a six-week research internship in the UK (in hospitals, industry or research institutes) or abroad (in our partner universities in Thailand or China). Others may elect to spend the entire fourth year on placement, in similar host institutions. Students will take core modules in research methods and statistics or informatics, together with a 60-credit research project. Students may replace the internship with other modules that cover advanced topics of global importance.

COMPULSORY MODULES

- Research Project LIFE700
- Research Methods and Application LIFE731

OPTIONAL MODULES (CHOOSE ONE)

- Advanced Statistics for Biological Research LIFE707
- Informatics for Life Sciences LIFE721
- Informatics for Life Sciences (OFF CAMPUS) LIFE621

OPTIONAL MODULES (Students choose either the research internship, or two of the remaining modules)

- Research Internship LIFE701
- Coding for Life Sciences LIFE733
- Cellular Biotechnology and Biological Imaging LIFE749
- Emerging Infections and Pandemic LIFE751
- Frontiers in Cancer Research LIFE724
- Cancer Clinical Trials LIFE726
- Immunology LIFE728
- Diagnostics Therapeutics and Vaccines LIFE732
- Computational Biology LIFE752
- Proteomics, Metabolomics and Data Analysis LIFE754
- Synthetic Biology and Biotechnology LIFE756

Modules

Compulsory modules	Credits
BIOLOGICAL DATA SKILLS (LIFE707)	15
RESEARCH METHODS AND APPLICATIONS IN BIOLOGICAL SCIENCES (LIFE731)	15

Optional modules	Credits
RESEARCH INTERNSHIP (LIFE701)	30
BIOLOGICAL DATA SKILLS (LIFE707)	15
INFORMATICS FOR LIFE SCIENCES (LIFE721)	15
CODING FOR LIFE SCIENCES (LIFE733)	15
CELLULAR BIOTECHNOLOGY AND BIOLOGICAL IMAGING (LIFE749)	15
EMERGING INFECTIONS AND PANDEMICS (LIFE751)	15
FRONTIERS IN CANCER RESEARCH AND TREATMENT (LIFE724)	15
CANCER CLINICAL TRIALS (LIFE726)	15
IMMUNOLOGY (LIFE728)	15
DIAGNOSTICS, THERAPEUTICS AND VACCINES (LIFE732)	15
COMPUTATIONAL BIOLOGY (LIFE752)	15
PROTEOMICS METABOLOMICS AND DATA ANALYSIS (LIFE754)	15

Optional modules	Credits
SYNTHETIC BIOLOGY AND BIOTECHNOLOGY (LIFE756)	15
INFORMATICS FOR LIFE SCIENCES (OFF-CAMPUS) (LIFE621)	15

Programme details and modules listed are illustrative only and subject to change.

Teaching and assessment

How you'll learn

You will experience a range of learning environments during your studies at Liverpool. These will include student-centred activities as well as lectures, tutorials, laboratory practicals, dissection classes, fieldwork, data handling sessions and computer workshops. Some of these activities will be performed individually, such as personal research projects, and others in small tutorial or project groups, in addition to formal lectures and workshops. You will have research staff as well as your own academic adviser for individual tuition on our acclaimed tutorial programme.

How you're assessed

As well as factual knowledge and understanding, biologists need practical and organisational skills, and an ability to work both alone and with other people. We record development of these abilities through continuous assessment during each semester and by final examination

Liverpool Hallmarks

We have a distinctive approach to education, the Liverpool Curriculum Framework, which focuses on research-connected teaching, active learning, and authentic assessment to ensure our students graduate as digitally fluent and confident global citizens.

The Liverpool Curriculum framework sets out our distinctive approach to education. Our teaching staff support our students to develop academic knowledge, skills, and understanding alongside our **graduate attributes**:

- Digital fluency
- Confidence

- Global citizenship

Our curriculum is characterised by the three **Liverpool Hallmarks**:

- Research-connected teaching
- Active learning
- Authentic assessment

All this is underpinned by our core value of **inclusivity** and commitment to providing a curriculum that is accessible to all students.

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Careers and employability

As a Biosciences graduate from the University of Liverpool, you will have an excellent set of career options ahead of you.

Typical types of roles/routes our graduates have gone on include:

- Postgraduate study: (MBiolSci, MSc, MRes, MPhil or PhD)
- Public sector – research institutes, government departments, the National Health Service, forensic science and the Environment Agency.
- Commercial sectors – pharmaceutical, food, biotechnology, water and agriculture industries.
- Journalists and information/liaison officers – by developments in molecular biology and biotechnology.
- Teaching profession by taking a postgraduate qualification (PGCE).
- Routes to postgraduate Medicine, Dentistry or Veterinary Science.

Recent employers and sectors:

- Pharmaceutical sector: Eli-Lilly, AstraZeneca, Glaxo SmithKline, NHS, Red X Pharma;
- Tourism/Conservation sector: Blue Planet Aquarium, Chester Zoo, RSPCA;
- Government/Legal sector: Crown Prosecution Service, The Environment Agency, Public Health England, Home Affairs, Ministry of Defence, Security and International Development;
- Media/Entertainment Sector: BBC;
- Corporate and Utilities sector: United Utilities, Vodafone, Unilever.

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Fees and funding

Your tuition fees, funding your studies, and other costs to consider.

Tuition fees

UK fees (applies to Channel Islands, Isle of Man and Republic of Ireland)

Full-time place, per year - £9,535
Year abroad fee - £1,430 (applies to year in China)

International fees

Full-time place, per year - £29,100
Year abroad fee - £14,550 (applies to year in China)

The tuition fees shown are correct for 2025/26 entry. Please note that the year abroad fee also applies to the year in China.

Tuition fees cover the cost of your teaching and assessment, operating facilities such as libraries, IT equipment, and access to academic and personal support. Learn more about paying for your studies.

Additional costs

We understand that budgeting for your time at university is important, and we want to make sure you understand any course-related costs that are not covered by your tuition fee. This includes the costs associated with placements or internships, and the optional field course in Uganda.

Students should expect to cover the following costs.

Costs associated with placements/internships
Students in Life Sciences who have chosen international placements/internships will need to pay for their visa (if applicable), travel, accommodation, and meals.

There may also be costs associated with travel to interviews for placements/internships. These will vary, and some other extra costs may also be

incurred. If students are spending a full year in industry, their employers may pay transport costs. School and University bursaries may be available to help with the cost of these opportunities.

Students might choose to pay for additional optional vaccinations in addition to the compulsory ones that the School pays for.

Tropical ecology field course

Students who elect to take the optional tropical ecology field course in Uganda are required to make a financial contribution that covers their own costs (travel, meals, visa, accommodation, and entry to national parks). In 2020-21, the student contribution was £1,500. A limited number of funded places are available.

Students might choose to pay for additional optional vaccinations in addition to the compulsory ones that the School pays for.

Find out more about additional study costs.

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Entry requirements

The qualifications and exam results you'll need to apply for this course.

A levels

ABB

Applicants with the Extended Project Qualification (EPQ) are eligible for a reduction in grade requirements. For this course, the offer is **BBB** with **A** in the EPQ.

You may automatically qualify for reduced entry requirements through our contextual offers scheme. Based on your personal circumstances, you may automatically qualify for up to a two-grade reduction in the entry requirements needed for this course. When you apply, we consider a range of factors – such as where you live – to assess if you're eligible for a grade reduction. You don't have to make an application for a grade reduction – we'll do all the work.

Find out more about how we make reduced grade offers.

If you don't meet the entry requirements, you may be able to complete a foundation year which would allow you to progress to this course.

Available foundation years:

- Biological Sciences (with a Foundation Year) BSc (Hons)

GCSE

4/C in English and 4/C in Mathematics

Subject requirements

Biology and Chemistry at A level.

For applicants from England: Where a science has been taken at A level (Chemistry, Biology or Physics), a pass in the Science practical of each subject will be required.

BTEC Level 3 National Extended Diploma

D*DD in Applied Science with a selection of preferred units in Biology and Chemistry, to include Distinction in Units 1 and 5 (Principles and Applications of Science I and II).

For previous BTEC (QCF) qualification:

D*DD in Applied Science with a selection of preferred units in Biology and Chemistry, with at least 120 Level 3 credits at Distinction.

Please note alternative BTEC subjects are not acceptable for this programme.

BTEC Applied Science unit requirements

View the BTEC Applied Science unit requirements.

International Baccalaureate

33 points including 6 in Higher Level Biology and 5 in Higher Level Chemistry.

Irish Leaving Certificate

H1, H2, H2, H2, H3, H3

Scottish Higher/Advanced Higher

Not accepted without Advanced Highers at grades ABB

Welsh Baccalaureate Advanced

Accepted at grade B as equivalent to a third non-science A level at grade B.

Access

45 Level 3 credits in graded units in a relevant Diploma, including 30 at Distinction and a further 15 with at least Merit. 15 Distinctions are required in each of Biology and Chemistry. GCSE Mathematics and English grade C/4 also required.

International qualifications

Select your country or region to view specific entry requirements.

If you hold a bachelor's degree or equivalent, but don't meet our entry requirements, you could be eligible for a Pre-Master's course. This is offered on campus at the University of Liverpool International College, in partnership with Kaplan International Pathways. It's a specialist preparation course for postgraduate study, and when you pass the Pre-Master's at the required level with good attendance, you're guaranteed entry to a University of Liverpool master's degree.

English language requirements

You'll need to demonstrate competence in the use of English language, unless you're from a majority English speaking country.

We accept a variety of international language tests and country-specific qualifications.

International applicants who do not meet the minimum required standard of English language can complete one of our Pre-Sessional English courses to achieve the required level.

IELTS

6.5 overall, with no component below 5.5

TOEFL iBT

88 overall, with minimum scores of listening 17, writing 17, reading 17 and speaking 19. TOEFL Home Edition not accepted.

TOEFL Paper

Grade 7 at Standard Level or grade 6 at Higher Level

Duolingo English Test

125 overall, with speaking, reading and writing not less than 105, and listening not below 100

Pearson PTE Academic

61 overall, with no component below 59

LanguageCert Academic

70 overall, with no skill below 60

Cambridge IGCSE First Language English 0500

Grade C overall, with a minimum of grade 2 in speaking and listening. Speaking and listening must be separately endorsed on the certificate.

Cambridge IGCSE First Language English 0990

Grade 4 overall, with Merit in speaking and listening

Cambridge IGCSE Second Language English 0510/0511

0510: Grade B overall, with a minimum of grade 2 in speaking. Speaking must be separately endorsed on the certificate. 0511: Grade B overall.

Cambridge IGCSE Second Language English 0993/0991

0993: Grade 6 overall, with a minimum of grade 2 in speaking. Speaking must be separately endorsed on the certificate. 0991: Grade 6 overall.

Cambridge ESOL Level 2/3 Advanced

176 overall, with no paper below 162

LanguageCert

Grade 5 at Standard Level or grade 5 at Higher Level

Pre-sessional English

Do you need to complete a Pre-sessional English course to meet the English language requirements for this course?

The length of Pre-sessional English course you'll need to take depends on your current level of English language ability.

Pre-sessional English in detail

If you don't meet our English language requirements, we can use your most recent IELTS score, or the equivalent score in selected other English language tests, to determine the length of Pre-sessional English course you require.

Use the table below to check the course length you're likely to require for your current English language ability and see whether the course is available on campus or online.

Your most recent IELTS score	Pre-sessional English course length	On campus or online
6.0 overall, with no component below 5.5	6 weeks	On campus
5.5 overall, with no component below 5.5	10 weeks	On campus and online options available
5.5 overall, with no more than one component below 5.5, and no component below 5.0	12 weeks	On campus and online options available
5.5 overall, with no component below 4.5	20 weeks	On campus
5.0 overall, with no component below 4.5	30 weeks	On campus
4.5 overall, with no more than one component below 4.5, and no component below 4.0	40 weeks	On campus

If you've completed an alternative English language test to IELTS, we may be able to use this to assess your English language ability and determine the Pre-sessional English course length you require.

Please see our guide to Pre-sessional English entry requirements for IELTS 6.5 overall, with no component below 5.5, for further details.

Alternative entry requirements

- If your qualification isn't listed here, or you're taking a combination of qualifications, contact us for advice
- Applications from mature students are welcome.

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