UNIVERSITY OF LIVERPOOL

MBiol (Hons)

Pharmacology

UCAS code B213

Entry requirements	Study mode	Duration	
A level: AAB	Full-time	4 years	Apply by: **14 January 2026** Starts on: **28 September 2026**

About this course

Pharmacology is an exciting branch of experimental science in which you'll study how chemical substances interact with our bodies.

Introduction

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

In the first three years, you'll study a broad range of modules including drug discovery and development, the cellular basis of health and disease, translational pharmacology, and advanced pharmacology and therapeutics with 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

- Understand the principles of pharmacology which underpin how medicines are identified and optimised for use in man.
- Develop an appreciation the mechanisms of how different drugs work in treating different clinical conditions.
- Gain an understanding of novel drugs types and advanced drug delivery methods at the cutting edge of pharmacology.
- Work within an authentic scientific research environment with leading researchers in their field.
- 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'll gain 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 participate in field studies, and you will discover how to utilise quantitative skills and study techniques.

Modules

Compulsory modules	Credits
BIOLOGY CORE CONCEPTS (BIOS101)	30
ORIGINS, SPECIALISATIONS, CHALLENGES AND THERAPEUTICS (BIOS102)	30
INTRODUCTORY PRACTICAL SKILLS IN BIOSCIENCES I (BIOS103)	15
FROM INDIVIDUALS TO ECOSYSTEM (BIOS104)	15
STUDY AND COMMUNICATION SKILLS TUTORIALS (BIOS105)	15
INTRODUCTORY PRACTICAL SKILLS IN BIOSCIENCES 2 (BIOS106)	15

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 pharmacology. You will study drug discovery and development, and explore how pharmacological principles underpin the creation of medicines used to treat a wide range of diseases.

Modules

Compulsory modules	Credits
GENETICS & IMMUNOLOGY FOR BIOSCIENCES (BIOS201)	15
INTERMEDIARY PRACTICAL SKILLS IN BIOSCIENCES (BIOS203)	15
ADVANCED PRACTICAL SKILLS IN BIOMOLECULAR AND DRUG INTERACTIONS (BIOS204)	15
ACADEMIC AND PROFESSIONAL SKILLS TUTORIALS (BIOS205)	15
CELLULAR BASIS OF HEALTH AND DISEASE (BIOS209)	15
CHEMISTRY FOR BIOSCIENCES (BIOS215)	15
DRUG DISCOVERY AND DEVELOPMENT (BIOS216)	15
FURTHER CHEMISTRY FOR LIFE SCIENCES (CHEM028)	15

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 pharmacological research and be taught by world-leading academics in the subjects of drug safety, personalised medicine and advanced therapeutics. You will have the opportunity to take a physical or virtual placement. Central to

this year is the 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.

Modules

Compulsory modules	Credits
RESEARCH PROJECT (BIOS301)	30
INTRODUCTION TO THE WORLD OF WORK (BIOS302)	15
RESEARCH METHODS (BIOS303)	15
TRANSLATIONAL PHARMACOLOGY (BIOS313)	15
ADVANCED PHARMACOLOGY AND THERAPEUTICS (BIOS315)	15
APPLIED PHARMACOLOGY (BIOS316)	15
INFORMATION PROCESSING BY CELL SIGNALLING NETWORKS IN HEALTH AND DISEASE (BIOS331)	15

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 optional internship with other optional modules that cover advanced topics of global importance.

Optional module selection in Year 4 must include one of the following combinations:

- LIFE707 Biological Data Skills and LIFE607 Biological Data Skills (Off-Campus)
- LIFE721 Informatics for Life Sciences and LIFE621 Informatics for Life Sciences (Off-Campus).

Modules

Compulsory modules	Credits
RESEARCH PROJECT (LIFE700)	60
GLOBAL PERSPECTIVES (BIOS776)	15

Optional modules	Credits
BIOLOGICAL DATA SKILLS (LIFE707)	15
BIOLOGICAL DATA SKILLS (OFF-CAMPUS) (LIFE607)	15
INFORMATICS FOR LIFE SCIENCES (LIFE721)	15
INFORMATICS FOR LIFE SCIENCES (OFF-CAMPUS) (LIFE621)	15
RESEARCH INTERNSHIP (LIFE701)	30
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

Optional modules	Credits
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
SYNTHETIC BIOLOGY AND BIOTECHNOLOGY (LIFE756)	15
UNDERSTANDING MODELS AND DATA (IVES724)	15
EXPERIMENTAL MEDICINE AND CLINICAL PHARMACOLOGY (LIFE764)	15
PHARMACEUTICAL TOXICOLOGY (LIFE765)	15
FRONTIERS IN DRUG DELIVERY AND ADVANCED THERAPEUTICS (LIFE766)	15

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

Teaching and assessment

How you'll learn

You will be taught using a balanced mix of lectures, workshops, seminars and tutorials and practical laboratory sessions, working cooperatively in small groups right from the beginning. Academic staff are available for 1-2-1 feedback and support. Course material is available 24/7 on our online learning platform, Canvas. Your third year will comprise of formative activities such as presenting seminars, creative writing and peer teaching along with your research project which will be done either individually or in a small groups.

How you're assessed

Students on this course are assessed with a combination of exams and coursework. Coursework includes essays, group projects, presentations and research projects. You'll submit coursework which contributes to your final grade and during your final year, you'll also submit your dissertation and sit your final exams.

As well as factual knowledge and understanding, life scientists need practical and organisational skills, and an ability to work both alone and with other people. You'll be assessed with a combination of exams and continuous assessment of course work during each semester.

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

Employability is embedded into the Pharmacology BSc (Hons) programme and can be the necessary stepping stone into a successful career in many life science sectors in clinical trials, manufacturing, regulatory affairs, intellectual property and scientific writing.

We also offer support for making career choices right from the beginning. In your first year, you will have the opportunity to consider potential career pathways within and outside the field of pharmacology.

Common employers of pharmacology graduates include:

- Pharmaceutical, environmental and biotech industries
- Civil Service
- Department of Health and Social Care
- Intellectual Property Office (IPO)
- National Health Service (NHS)
- Universities

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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 - £9,790
Year in industry fee - £1,955
Year abroad fee - £1,465 (applies to year in China)

International fees

Full-time place, per year - £32,000
Year in industry fee - £1,955
Year abroad fee - £16,000 (applies to year in China)

The fees shown are for the academic year 2026/27. Please be advised that tuition fees may increase each year for both UK and international students. For UK students, this will be subject to the government's regulated fee limits.

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 Biosciences 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

AAB
including Chemistry A level plus a second science, preferably Biology, at A level.

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

T levels

Health and Science (Science pathway) is accepted with an overall grade of Distinction to include B in the core.

Applicants should contact us by completing the enquiry form on our website to discuss specific requirements in the core components and the occupational specialism.

GCSE

4/C in English and 4/C in Mathematics

Subject requirements

Accepted science subjects:
Applied ICT
Biology (and Human Biology)
Chemistry
Computer Science
Economics
Electronics
Environmental Science
Further Mathematics
Geography
Geology
ICT
Life and Health Sciences
Mathematics
Psychology
Physics
Statistics.

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.

International Baccalaureate

34 points overall with no score less than 4 including 6 in Higher Level Chemistry and 5 in another Higher Level science subject.or pass the IB Diploma plus 6,6,5 in 3 HL subjects including 6 in Higher Level Chemistry and 5 in another Higher Level science subject.

Irish Leaving Certificate

H1, H1, H2, H2, H2, H3

Scottish Higher/Advanced Higher

Not accepted without Advanced Highers at grades ABB

Welsh Baccalaureate Advanced

B in the Welsh Baccalaureate, plus grades AA at A level to include Chemistry grade A and another science at grade A.

Access

Pass relevant Access to HE Diploma with 45 Level 3 credits with 36 at Distinction and 9 at Merit. 15 Distinctions are required in each of Chemistry and Biology. 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.

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.

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

If you took a TOEFL test on or before 20 January 2026, you'll need 88 overall, with minimum scores of listening 17, writing 17, reading 17 and speaking 19. If you took a TOEFL test from 21 January 2026 onwards, when a new scoring system was introduced, you'll need 4.5 overall, with 4 or above in all components. TOEFL Home Edition not accepted.

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

International Baccalaureate English A: Literature or Language & Literature

Grade 5 at Standard Level or grade 5 at Higher Level

International Baccalaureate English B

Grade 7 at Standard Level or grade 6 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 or online
5.5 overall, with no more than one component at 5.0	10 weeks	On campus or online
5.5 overall, with no component below 5.0	12 weeks	Online
5.0 overall, with no component below 5.0	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 at 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.

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