UNIVERSITY OF LIVERPOOL

MSc

Bioinformatics

Entry requirements	Study mode	Duration	
A 2:1 Honours degree	Full-time Part-time	12 months 24 months	Apply by: **11 September 2026** Starts on: **28 September 2026**

About this course

Biosciences and technology are an integral part of the global economy. Our Bioinformatics MSc has been designed with input from major industry players to meet the current and emerging skill gaps for professional bioinformaticians.

Introduction

This course will equip you with the background in biology, statistical analysis, and computing skills necessary to work with modern biological data from genomic, proteomic and metabolomic studies.

You'll be trained with an emphasis on hands-on practical experience, so that you can tackle your research project with confidence.

You will be taught by internationally renowned scientists at a University with internationally excellent Research Centres, including the University of Liverpool Computational Biology Facility, the newly established Centre for Metabolomics, the Centre for Proteomics, and the Centre for Genomic Research.

If Bioinformatics is your passion, you may wish to continue your education by studying a PhD following successful completion of this MSc.

Please note that this programme is suitable for intercalating medical students.

Who is this course for?

This master’s course is for graduates from a Biological Sciences background who want to combine the skills and technologies from computer science and biology to help better understand and interpret biological data.

What you'll learn

- The knowledge and skills necessary to perform bioinformatics analyses
- Statistical techniques in the design of experiments in biological research
- Theoretical and technical knowledge in sequence analysis, phylogenetics, and the modelling of proteins, and others
- Coding skills to perform tasks in the biological sciences
- How to analyse and interpret complex genomic data sets
- The understanding of proteomic and metabolomic techniques and related data analysis

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Course content

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

Semester one

Modules

Compulsory modules	Credits
BIOINFORMATICS RESEARCH SKILLS (LIFE748)	30
BIOLOGICAL DATA SKILLS (LIFE707)	15
INFORMATICS FOR LIFE SCIENCES (LIFE721)	15
CODING FOR LIFE SCIENCES (LIFE733)	15

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

Semester two

Modules

Compulsory modules	Credits
BIOINFORMATICS RESEARCH SKILLS (LIFE748)	30
ADVANCED GENOMIC ANALYSIS (LIFE750)	15

Compulsory modules	Credits
COMPUTATIONAL BIOLOGY (LIFE752)	15
PROTEOMICS METABOLOMICS AND DATA ANALYSIS (LIFE754)	15

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

Final project

Modules

Compulsory modules	Credits
MSC RESEARCH PROJECT (LIFE703)	60

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 teaching and learning methods, including lectures, seminars, workshops, group discussion and e-learning.

Programme modules encourage individual and group work where you will tackle problems by developing ideas and hypotheses, design learning strategies to solve problems, and then analyse and interpret your findings.

Course material is available 24-hours a day on Canvas, our online learning platform. One-to-one meetings with your research supervisor will allow you to discuss science, develop your critical thinking and creativity through an ongoing feedback model.

Your master research project provides a full academic research experience, including the planning, execution and communication of scientific research.

How you're assessed

Assessment of knowledge and understanding, practical skills and transferrable skills is through a blended mix of coursework that may include practical and project reports, essays, completion of workbooks, talks, data handling sessions and posters.

All modules will provide you with feedback on your learning progress and allow for adjustment of your learning. Electronic resources available on the University virtual learning environment support learning and teaching.

Liverpool Learning Framework

At Liverpool, we take a distinctive approach to education through the Liverpool Learning Framework. This means teaching that is engaging, inclusive and designed to help you succeed during your studies and beyond.

You'll develop specialist subject knowledge alongside the skills employers value most, including:

- Digital fluency
- Confidence
- Global citizenship

Our curriculum is characterised by the three Liverpool Hallmarks:

- Research-connected teaching - learning informed by the latest ideas and discoveries
- Active learning - taking part, applying knowledge and learning by doing
- Authentic assessment - assessments designed around real-world tasks and challenges

We also embed key priorities across our curriculum, including AI literacy, employability, and sustainability, helping you prepare for the future and make a positive impact in the world.

We're committed to creating a supportive and inclusive learning environment where every student can thrive.

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Careers and employability

Graduates with a Bioinformatics MSc are highly sought after. In the public sector, bioinformaticians are in demand in research institutes, government departments, the Health Service, forensic science and the Environment Agency.

Commercial sectors such as the pharmaceutical, biotechnology and agriculture industries are also employers of our graduates, especially with the increase of next-generation sequencing and the corresponding data analysis that is required.

There is also a current demand for science teachers and following the completion of a PGCE, this master's is suitable for those interested in a career in teaching. In fact, many of our graduates pursue careers in a wide range of fields, including management, where the skills obtained through this degree are of considerable benefit.

The MSc Bioinformatics prepares you for a diversity of job opportunities in the public and private sector. Potential career pathways include, but are not limited to, the roles of:

- Bioinformatics Scientist
- Research Scientist
- Biostatistician
- Bioinformatician
- Molecular Biologist
- Microbiologist.

Career support from day one to graduation and beyond

Career planning

From education to employment

Networking events

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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 - £14,000
Part-time place, per year - £7,000

International fees

Full-time place, per year - £32,000
Part-time place, per year - £16,000

Tuition fees are for the academic year 2026/27.

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

- You can pay your tuition fees in instalments.
- All or part of your tuition fees can be funded by external sponsorship.
- International applicants who accept an offer of a place will need to pay a deposit.

If you're a UK national, or have settled status in the UK, you may be eligible to apply for a Postgraduate Loan worth up to £12,858 to help with course fees and living costs. **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. You can find information on the general and subject-specific costs you could expect to incur on our study costs webpage.

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Entry requirements

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

Postgraduate entry requirements

We accept a 2:2 honours degree from a UK university, or an equivalent academic qualification from a similar non-UK institution. This degree should be in a Biological Sciences subject or equivalent, including at least one module providing training in statistics, or a degree from a Science and Engineering subject, with a demonstrated interest or modules in Biology.

Candidates must have a scientific background acceptable to the Director of the programme.

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, a Pre-Master's can help you gain a place. This specialist preparation course for postgraduate study is offered on campus at the **University of Liverpool International College**, in partnership with Kaplan International Pathways. Although there's no direct Pre-Master's route to this MSc, completing a Pre-Master's pathway can guarantee you a place on many other postgraduate courses at The University of Liverpool.

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 6.0

TOEFL iBT

If you took a TOEFL test on or before 20 January 2026, you'll need 88 overall, with minimum scores of listening 19, writing 19, reading 19 and speaking 20. 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 writing not less than 125, speaking and reading not less than 115, and listening not below 110. For academic year 2025/26 only, we will also accept the production, literacy, comprehension and conversation score set: 120 overall, with no component below 105.

Pearson PTE Academic

61 overall, with no component below 59

LanguageCert Academic

70 overall, with no skill below 65

PSI Skills for English

B2 Pass with Merit in all bands

INDIA Standard XII

National Curriculum (CBSE/ISC) - 75% and above in English. Accepted State Boards - 80% and above in English.

WAEC

C6 or above

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 writing at 6.0 and no component below 5.5	6 weeks	On campus or online
5.5 overall, with writing at 5.5 and no component below 5.0	10 weeks	On campus or online
5.5 overall, with no more than one component at 5.0	12 weeks	Online
5.5 overall, with no component below 5.0	20 weeks	On campus
5.0 overall, with no more than one component at 4.5	30 weeks	On campus

Your most recent IELTS score	Pre-sessional English course length	On campus or online
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 6.0, for further details.

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