UNIVERSITY OF LIVERPOOL

MRes

Biological and Biomedical Sciences

Study mode	Duration	
Part-time	24 months	Apply by: **28 August 2026** Starts on: **21 September 2026**

About this course

The MRes in Biological and Biomedical Sciences will enable you to develop an advanced knowledge of biological and biomedical sciences and their application to biological research and translational medicine. The programme will allow you the opportunity to specialise in distinct basic and applied research pathways. Such a course often serves as a major step towards PhD studies or a career in research-related roles in academia or industry.

Introduction

If you're looking to move into a career in science, whether in academia, industry or biomedicine research, this MRes will enable you to develop advanced knowledge, skills and understanding in biological and biomedical sciences.

The programme is divided into 7 pathways (Bio-Imaging; Cancer Biology and Therapy; Cell and Tissue Signalling; Bioinformatics and AI; Pharmacology and Toxicology; Plant Biology; Structural Biology) and you will be able to choose a pathway and corresponding project that matches your individual research interests.

A year-long research project based in **Institute of Systems, Molecular and Integrative Biology** forms the central part of the course. Selecting the right project is a key decision and we'll help you choose a topic relevant to your interests and career plans. For ideas about the focus of your research project, please see our MRes Biological and Biomedical Sciences research projects page.

Complementing the research project are taught modules. These provide key underpinning knowledge of the research methods and technologies that drive contemporary research in biological and biomedical sciences.

A range of optional modules provide the opportunity to undertake further tailored research training, receive a grounding in essential statistical techniques and study specialist areas of biological and biomedical science in-depth. Whichever pathway you choose, you'll discover contemporary debates, controversies, concepts, challenges and innovations that are relevant to your research project. The title of your degree award will reflect your chosen route.

This course is also open to intercalators.

Who is this course for?

This MRes aims to attract students who will benefit from studying in a biological/biomedical/ translational research-intensive environment. It aims to be equally relevant to students from a variety of specialist disciplines and career routes including biological sciences, medicine, veterinary medicine, allied health professions and sports science.

What you'll learn

- Contemporary methods, processes and technologies underpinning biological and biomedical science research and evidence-based practice
- Effective communication with professional and lay audiences
- Major issues and challenges in biological and biomedical sciences
- Enhanced problem-solving and critical thinking skills
- Information retrieval and referencing skills
- Statistical inference techniques for hypothesis testing in biological and biomedical science research
- How to plan and conduct a major piece of original, independent research
- How to collect, interpret and analyse data and present your findings
- Tailored advanced skills training, enhancing your expertise and proficiency in areas determined by your individual needs
- Supporting knowledge in specialist areas of biological science that are relevant to your research project

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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
MRES ADVANCED BIOLOGICAL AND BIOMEDICAL SCIENCES PROJECT 1 (BIOS777)	30
TECHNIQUES IN BIOLOGICAL AND BIOMEDICAL SCIENCES RESEARCH (BIOS775)	15

Optional modules	Credits
INFORMATICS FOR LIFE SCIENCES (LIFE721)	15
PHARMACEUTICAL TOXICOLOGY (LIFE765)	15
BIOLOGICAL DATA SKILLS (LIFE707)	15
CELLULAR BIOTECHNOLOGY AND BIOLOGICAL IMAGING (LIFE749)	15
CODING FOR LIFE SCIENCES (LIFE733)	15

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

Semester two

Students can choose 2 optional modules in semester 2

Modules

Compulsory modules	Credits
GLOBAL PERSPECTIVES (BIOS776)	15

Optional modules	Credits
COMPUTATIONAL BIOLOGY (LIFE752)	15
PROTEOMICS METABOLOMICS AND DATA ANALYSIS (LIFE754)	15
FRONTIERS IN CANCER RESEARCH AND TREATMENT (LIFE724)	15
SYNTHETIC BIOLOGY AND BIOTECHNOLOGY (LIFE756)	15
ADVANCED GENOMIC ANALYSIS (LIFE750)	15
EXPERIMENTAL MEDICINE AND CLINICAL PHARMACOLOGY (LIFE764)	15

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

Final project

Modules

Compulsory modules	Credits
MRES ADVANCED BIOLOGICAL AND BIOMEDICAL SCIENCES PROJECT 2 (BIOS778)	90

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

Teaching and assessment

How you'll learn

Students will be taught via a variety of methods employing elements of active learning, including lectures, practical's, coursework, workshops and small-group tutorials all supported by web-based materials, selected textbooks and specified source literature. Students will undertake a substantive single research project related to their pathway of study.

A variety of innovative authentic assessment methods include: preparing research reviews; oral, poster and digital media presentations including a digital abstract; writing a final research report in the style of a journal article. The aim is to meet the diversity of student learning and assessment needs, while providing opportunities for students to develop their digital fluency and confidence in areas relevant to their future careers. Students will present their research in oral and digital media formats. During the project, students will develop critical understanding of experimental design and research protocols.

How you're assessed

Authentic assessment is used throughout the programme, meaning students are likely to be required to perform similar tasks in the next stage of their career, such as report writing, data analysis, writing articles for publication, grant writing and presentations (oral, poster, digital media), tasks which also allow students to further develop their digital fluency.

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

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)

Part-time place, per year - £2,503

International fees

Part-time place, per year - £12,300

Fees stated are for the 2025/26 academic year. Tuition fees for the academic year 2026/27 will be announced soon.

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 tuition fee 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 £12,167 to help with course fees and living costs. **Learn more about paying for your studies**.

Additional costs

Please note, this programme may have additional costs associated with it depending on your choice of a laboratory or computational (desk-based) project. An additional £3,000 fee applies to cover research support costs for laboratory-based projects; an additional £1000 fee applies for computational projects.

Find out more about the additional study costs that may apply to this course.

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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 subject related to Biological Sciences.

International qualifications

Select your country or region to view specific entry requirements.

Many countries have a different education system to that of the UK, meaning your qualifications may not meet our entry requirements. Completing your Foundation Certificate, such as that offered by the University of Liverpool International College, means you're guaranteed a place on your chosen course.

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

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

Your most recent IELTS score	Pre-sessional English course length	On campus or online
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.

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