UNIVERSITY OF LIVERPOOL

MRes

Data Science for Health

Study mode	Duration	
Full-time	12 months	Apply by: **29 August 2025**
Part-time	24 months	Starts on: **22 September 2025**

About this course

The MRes in Data Science for Health features a particular focus on research and research methods to address important questions, which are pertinent to global, societal and cultural health care needs.

Introduction

This programme is for those with an interest in developing data science research skills within the field of health and gives direct authentic experience in developing and delivering a novel empirical research project to answer a specific gap in existing knowledge in health data science. You will be able to choose from a series of taught modules suited to your research interests which will develop of your academic background and skills.

Modules cover a range of core health research, epidemiological and statistical topics, with the option to follow various specialist statistical pathways.

Who is this course for?

The MRes in Data Science for Health is for current and future health data scientists, at all career stages, including those in public and private sectors. This course is designed for anyone with an interest in data science for health, irrespective of previous training or qualifications.

What you'll learn

- Communicate information, ideas, problems, and solutions to both specialist and non-specialist audiences
- Select and apply relevant methods to analyse data and interpret their validity
- Critically appraise literature, concepts, and research techniques related to research in data science
- Apply advanced statistical methods to the analysis of health data
- Use originality of thought and self-directed learning skills to tackle and solve problems
- Plan and conduct an original piece of research in health data

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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

Compulsory module

DASC510	Data Science for Health Research Project	This module is the first of a two-part research project and gives direct authentic experience in developing and planning a novel empirical research project. Students will use appropriate methodologies to answer a specific gap in existing knowledge in health data science. Students can choose from a selection of applied and/or methodological research studies or may choose to define their own research question/study, with supervision provided by a member of academic staff.

The full structure of this course is still under development and will be available soon.

Modules

Optional modules	Credits
INTRODUCTION TO HEALTH DATA SCIENCE (DASC501)	15
STATISTICS FOR HEALTH RESEARCH (DASC502)	15
USING ROUTINE DATA FOR PUBLIC HEALTH (DASC503)	15
DATA AND ENGINEERING FOR HEALTH RESEARCH (DASC509)	15

Optional modules	Credits
AN INTRODUCTION TO QUALITATIVE RESEARCH (PUBH160)	15
PRACTICAL RESEARCH SKILLS (PSYC644)	30

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

Semester two

Compulsory module

DASC511	Data Science for Health Research Project	This module is the second of a two-part research project and gives direct authentic experience in conducting and reporting on a novel empirical research project. Students will use appropriate methodologies to answer a specific gap in existing knowledge in health data science. Students can choose from a selection of applied and/or methodological research studies or may choose to define their own research question/study, with supervision provided by a member of academic staff.

The full structure of this course is still under development and will be available soon.

Modules

Optional modules	Credits
EVALUATION OF HEALTHCARE INTERVENTIONS (DASC504)	15
ACTIONABLE HEALTHCARE DATA ANALYTICS (DASC505)	15

Optional modules	Credits
PREDICTION MODELLING & JOINT LONGITUDINAL AND SURVIVAL DATA ANALYSIS (DASC506)	15
HIGH-DIMENSIONAL DATA STRUCTURES AND LEARNING ALGORITHMS (DASC507)	15
STATISTICAL GENETICS AND PHARMACOGENOMICS (DASC508)	15

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

Final project

Compulsory module

DASC511	Data Science for Health Research Project	This module is the second of a two-part research project and gives direct authentic experience in conducting and reporting on a novel empirical research project. Students will use appropriate methodologies to answer a specific gap in existing knowledge in health data science. Students can choose from a selection of applied and/or methodological research studies or may choose to define their own research question/study, with supervision provided by a member of academic staff.

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

Teaching and assessment

How you'll learn

The learning and teaching strategy for the programme comprises a mixture of formal lectures, practical and tutorial sessions, discussion groups, student centred learning,

and project work. Additional support is sought from online materials, selected textbooks and directed reading of research literature (taken from scientific journals and conference proceedings). Each module (except the research project) is worth 15 credits and thus totals approximately 150 hours, 25-50 of which are in taught sessions. The research project modules are split into a 30 credit module (during semester 1 to plan the project) and 90 credit module (in semesters 2 and 3 to conduct and complete the scientific report on the project).

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

Developing transferable skills to enhance your employability is a key theme of the programme.

Potential employers are involved in the delivery of the course and you will be able to attend careers events with representation from higher education institutions, the NHS, industry and government agencies. This will ensure you have a variety of opportunities to network and build useful contacts.

Whenever possible, your dissertation project will be linked with external partner organisations, connecting you to potential employment and career progression opportunities.
99% of health sciences students from the University of Liverpool find their main activity after graduation meaningful

Graduates from the MRes in Data Science for Health are likely to enter a variety of careers opportunities. These include:
• PhD student
• Research Assistant
• Trial statistician
• Epidemiologist
• Data Scientist

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 - £5,006
Part-time place, per year - £2,503

International fees

Full-time place, per year - £31,250
Part-time place, per year - £15,650

Fees stated are for the academic year 2025/26. Some MRes courses incur additional bench fees. You will be notified of any fee which applies to you in your offer letter.

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

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 could include buying a laptop, books, or stationery.

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

Applicants are required to have a minimum of 2.2 or equivalent qualification. Students with a first degree in any academic subject will be considered, as students will be trained on basic statistical and computing skills.

For overseas students an acceptable English language qualification (IELTS 6.5 or equivalent, with no band less than 6.0) is required to ensure students can access the programme material which is all delivered in English.

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 6.0

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 6.0	6 weeks	On campus
6.0 overall, with no component below 5.5	10 weeks	On campus and online options available
6.0 overall, with no more than one component below 5.5, and no component below 5.0	12 weeks	On campus and online options available

Your most recent IELTS score	Pre-sessional English course length	On campus or online
5.5 overall, with no more than one component below 5.5, and no component below 5.0	20 weeks	On campus
5.0 overall, with no more than one component below 5.0, and 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 6.0, for further details.

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