



MSc

Global Change Ecology and Evolution

Study mode

Full-time

Duration

12 months

Apply by: **29 August 2025**

Starts on: **22 September 2025**

About this course

In the face of unprecedented global environmental challenges, there is an urgent need to train scientists that can preserve our natural world and mitigate the impact of human activities on our ecosystems. This MSc is designed to equip you with the skills and knowledge to tackle this Global Change crisis.

Introduction

The MSc in Global Change Ecology and Evolution provides a comprehensive understanding of the anthropogenic stressors affecting biodiversity and ecosystems. Students critically assess ecological and evolutionary responses to environmental change and explore strategies to mitigate human impact. The program develops key skills in communication, problem-solving, statistics, and experimental design, along with advanced quantitative and 'omics techniques, highly valued in research, conservation, policy, and industry.

Taught by leading experts from Liverpool's Department of Evolution, Ecology, and Behaviour (DEEB), the course utilizes specialised [facilities](#), including the Buxton Climate Change Lab, Brian Moss Mesocosm Facility, Henry Wellcome Laboratory of Mammalian Biology and Evolution, and the NERC Environmental 'Omics Facility (NEOF). These resources provide exceptional hands-on learning opportunities.

Through a blend of theoretical coursework and practical experiences, including a 10-day overseas field course (a UK option is also available), graduates will be well equipped to develop evidence-based solutions for global change related challenges.

Who is this course for?

This programme is aimed at graduates with a bachelors degree in a biological sciences area and who are interested in evolution, ecology and conservation or global change biology.

What you'll learn

- The diversity of anthropogenic factors impacting natural populations.
- An understanding of fundamental processes in ecology and evolution that dictate responses to environmental change from the individual to the ecosystem, including interactions between and limits to these processes
- The current evidence base underpinning global change biology and key knowledge gaps
- Knowledge and skills relating to 'omics and other cutting-edge approaches used to study global change biology.
- Field skills for quantifying and monitoring biodiversity
- Understanding of models and data used to understand and predict biological responses to global change.
- How to plan, execute and present a major piece of original, independent research in the laboratory and in the field.
- Experimental design and data skills in R
- Science communication for a variety of audiences

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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

This master's programme provides a comprehensive overview of the anthropogenic stressors impacting the natural world and the research and intervention strategies designed to mitigate these effects. Students will explore the ecological and evolutionary responses to various stressors and critically evaluate mitigation strategies for human activities.

The programme offers a deep understanding of ecology and evolutionary biology applied to real-world challenges, while enhancing skills in communication, problem-solving, statistics, and experimental design. Additionally, students will gain hands-on field skills for quantifying biodiversity across different ecosystems and taxa, alongside developing quantitative expertise in 'omics and other advanced approaches, essential for careers in research, conservation, policy, and industry.

Modules

Compulsory modules	Credits
<u>BIOLOGICAL DATA SKILLS (LIFE707)</u>	15
<u>INTRODUCTION TO IVES RESEARCH (IVES701)</u>	30
<u>ECOLOGY IN THE ANTHROPOCENE (IVES713)</u>	15
<u>EVOLUTION IN THE ANTHROPOCENE (IVES712)</u>	15

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

Semester two

This master's programme provides a comprehensive overview of the anthropogenic stressors impacting the natural world and the research and intervention strategies designed to mitigate these effects. Students will explore the ecological and evolutionary responses to various stressors and critically evaluate mitigation strategies for human activities.

The programme offers a deep understanding of ecology and evolutionary biology applied to real-world challenges, while enhancing skills in communication, problem-solving, statistics, and experimental design. Additionally, students will gain hands-on field skills for quantifying biodiversity across different ecosystems and taxa, alongside developing quantitative expertise in 'omics and other advanced approaches, essential for careers in research, conservation, policy, and industry.

Modules

Compulsory modules	Credits
<u>UNDERSTANDING MODELS AND DATA (LIFE762)</u>	15
<u>SKILLS FOR GLOBAL CHANGE BIOLOGY (IVES725)</u>	15
<u>INTRODUCTION TO IVES RESEARCH (IVES701)</u>	30
<u>GLOBAL CHANGE BIOLOGY FIELD COURSE (IVES726)</u>	15

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

Final project

Modules

Compulsory modules	Credits
<u>IVES RESEARCH PROJECT (IVES702)</u>	60

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

Teaching and assessment

How you'll learn

The program integrates lectures, workshops, and student-led seminars to provide foundational knowledge and cultivate critical thinking, problem-solving, and real-world application.

Lectures are supplemented by independent study and interactive elements like quizzes and group work, while workshops focus on ecological and conservation challenges posed by global environmental change, encouraging collaborative solutions in smaller groups.

A 'Journal Club' format enhances engagement with current research, promoting critical analysis and reflective learning.

Field courses offer experiential learning through hands-on practice, demonstrations, and independent research in real-world contexts.

All students will also undertake an independent research project under the supervision of an Academic on a research project related to their specific programme of study. Projects are generally either lab, field or computer based (or a combination).

How you're assessed

Assessment of knowledge, practical skills, and transferable skills in the MSc in Global Change Ecology and Evolution emphasizes authentic assessment methods that mirror real-world scenarios and professional tasks.

This includes practical and project reports, essays, workbooks, presentations, and data handling and interpretation tasks. These assessments are designed to provide students with practical experience and enhance their readiness for professional challenges.

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

We envisage an increasing demand for graduates that understand how the natural world responds to anthropogenic challenges within research institutes, government departments, conservation bodies and charities, agriculture, industry, scientific communication and teaching.

Graduation from the Global Change Ecology & Evolution MSc programme will provide lifelong learning skills, scientific training and opportunity for employment. These opportunities include diverse careers spanning scientific research and teaching, consultancy, industry and NGOs where the skills can be applied in different and bespoke ways. Progression in academic and scientific research careers will be enabled by enhancing research skills for PhD and beyond, as well as industry. The skills and expertise that students develop over the course of the programme will support a transition to a career as a research scientist, environmental consultant, environmental agency, environmental education officer, higher education lecturer, nature conservation officer or science writer

The MSc Global Change Ecology and Evolution 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:

- PhD Student/ Academia
- Scientific or policy positions in public sector agencies, non-government organisations or charities
- Scientist employed in private sector organisations with a focus on bioscience, environment, and public and veterinary health
- Environmental consultant
- Conservation Officer
- Scientific writer

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 - £13,300

International fees

Full-time place, per year - £28,300

Fees stated are for the 2025-26 academic year.

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

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. Students with a degree in an Environmental Sciences subject may also be accepted if there is sufficient biology-related scientific content acceptable to the programme director.

Students who do not meet these criteria may still be considered if you hold significant professional experience in conservation or environmental industries.

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

Duolingo English Test

125 overall, with writing not less than 125, speaking and reading not less than 115, and listening not below 110

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

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