

BSc (Hons)

Ocean and Climate Sciences

UCAS code F700

Entry requirements

A level: ABB

Study mode

Full-time

Duration

3 years

Apply by: **13 January 2027**Starts on: **27 September 2027**

About this course

Our Ocean Sciences programme takes an interdisciplinary approach to understanding the ocean environment. With fieldwork opportunities embedded in each year of the course and our strong links to the National Oceanography Centre, Liverpool is an excellent place to study Ocean Sciences.

Introduction

The ocean plays a central role in the Earth's climate system by regulating the transfer of heat and carbon over the globe. The effect of the ocean on Earth's climate and on life can only be fully understood by addressing the fundamental biological, physical and chemical processes operating in the environment. This degree route takes a multidisciplinary approach to developing an understanding of the ocean and climate system.

We have strong links with scientists from the National Oceanography Centre in Liverpool, who provide guest lectures and supervision of projects.

On the Ocean Science programme you will acquire a broad interdisciplinary understanding of the ocean environment from a physical, chemical and biological perspective. The oceanography route is suitable if you don't have a strong background in mathematics, physics or chemistry as remedial courses are provided.

This programme has an important focus on practical aspects of marine science and will provide grounding in hands-on quantitative studies of biological, chemical and physical marine science. There will be the opportunity to participate in field/project work throughout the course of your studies, as well as a full sea practical during year three. You will undertake a major research project in your final year. The degree in Ocean Sciences at Liverpool is accredited by the Institute of Marine Engineering, Science and Technology.

A number of the School's degree programmes involve laboratory and field work. Fieldwork is carried out in various locations, ranging from inner city to coastal and mountainous environments. We consider applications from prospective disabled students on the same basis as all other students, and reasonable adjustments will be considered to address barriers to access.

What you'll learn

- How the atmosphere and the oceans transport heat
- How the climate is changing
- How nutrients and carbon are cycled over the globe
- The effects of ocean acidification
- How life operates in the dynamic ocean environment

Accreditation

The degree in Ocean Sciences at Liverpool is accredited by the Institute of Marine Engineering, Science and Technology.

Accreditation in detail

Institute of Marine Engineering, Science and Technology

IMarEST - The Institute of Marine Engineering, Science and Technology - is the international professional body for all marine professionals.

^ [Back to top](#)

Course content

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

Year one

Students are pre-registered for ENVS128 which provides quantitative skills for ecology, marine biology and related subjects. Students wanting more fundamental maths can switch to ENVS117. No mathematical knowledge above GCSE level will be assumed in either module.

Modules

Compulsory modules	Credits
STUDY SKILLS (MARINE SCIENCE) (ENVS104)	15
CLIMATE, ATMOSPHERE AND OCEANS (ENVS111)	15
MARINE ECOSYSTEMS: DIVERSITY, PROCESSES AND THREATS (ENVS122)	15
QUANTITATIVE SKILLS FOR ECOLOGY AND MARINE BIOLOGY (ENVS128)	15
THEORY AND LABORATORY EXPERIMENTS IN EARTH SURFACES PROCESSES (ENVS165)	15

Optional modules	Credits
ECOLOGY AND CONSERVATION (ENVS157)	15
SEDIMENTARY ROCKS AND FOSSILS (ENVS118)	15

Optional modules	Credits
LIFE IN THE SEAS AND OCEANS (ENVS121)	15
ESSENTIAL MATHS (ENVS117)	15
INTRODUCTION TO CLIMATE CHANGE AND MITIGATION (ENVS189)	15
LIVING WITH ENVIRONMENTAL CHANGE (ENVS119)	15

Programme details and modules listed are illustrative only and subject to change. As part of our commitment to continuous improvement, we are currently reviewing all of our programmes. This may include refining study pathways, strengthening links with employers, integrating generative AI, developing students' research skills, and enhancing alignment with our research strengths. The course content currently shown on this page reflects the programme as it is running in September 2026. This page will be updated for students beginning in September 2027 by 1 September 2026 at the latest.

Year two

Modules

Compulsory modules	Credits
KEY SKILLS FOR ENVIRONMENTAL DATA ANALYSIS (ENVS202)	15
MARINE ECOPHYSIOLOGY, ECOLOGY AND EXPLOITATION (ENVS251)	15
MARINE POLLUTION (ENVS232)	15
SAMPLING THE OCEAN (ENVS220)	15
RESEARCH AND CAREER SKILLS (ENVS204)	15

Compulsory modules	Credits
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OCEANOGRAPHY, PLANKTON AND CLIMATE (ENVS245)	15
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Optional modules	Credits
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CATCHMENT HYDROLOGY (ENVS217)	15
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CLIMATOLOGY (ENVS231)	15
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GEOMORPHOLOGY: ICE, SEA AND AIR (ENVS252)	15
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CHANGING ENVIRONMENTS (ENVS214)	15
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Year three

Modules

Compulsory modules	Credits
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OCEAN CARBON AND CLIMATE (ENVS335)	15
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CONTEMPORARY ISSUES IN OCEAN AND CLIMATE SCIENCES (ENVS366)	15
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Compulsory modules	Credits
OCEAN DYNAMICS (ENVS332)	15
SEA PRACTICAL (ENVS349)	30
INDEPENDENT RESEARCH PROJECT (ENVS306)	30

Optional modules	Credits
COASTAL ENVIRONMENTS: SPATIAL AND TEMPORAL CHANGE (ENVS376)	15
CARBON, NUTRIENTS AND CLIMATE CHANGE MITIGATION (ENVS381)	15
MODELLING ENVIRONMENTAL SYSTEMS (ENVS397)	15

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Teaching and assessment

How you'll learn

Teaching takes place through lectures, practicals, workshops, seminars, tutorials and computer based learning, with an emphasis on learning through doing.

Students value the learning opportunities provided by field classes, including the rapid feedback on performance. You will typically receive at least 15 hours of formal teaching each week. Between 30 and 100 hours of fieldwork and hands-on activities are provided each year depending on the discipline.

A typical module might involve two or three one-hour lectures each week, and often a three-hour laboratory or computer-based practical as well. Tutorials typically involve groups of 4-7 students meeting with a member of staff at least every two weeks in year one and two. In year three, you will undertake an Honours project, which is a piece of independent research (field, laboratory or data analysis) on a topic of your choice, supervised by a member of staff. In years three and four students meet with their project supervisor on a weekly or more frequent basis. As you progress through your degree, you will be increasingly challenged to engage with current debates, to think critically and to study independently.

A number of the School's degree programmes involve laboratory and field work. The field work is carried out in various locations, ranging from inner city to coastal and mountainous environments. We consider applications from prospective students with disabilities on the same basis as all other students, and reasonable adjustments will be considered to address barriers to access.

How you're assessed

Assessment matches the learning objectives for each module and may take the form of written exams, coursework submissions in the form of essays, scientific papers, briefing notes or lab notebooks, oral and poster presentations and contributions to group projects. Coursework is designed around the types of problems encountered, and the skills needed, in commercial, research and public sector jobs. Emphasis is placed on good laboratory practice and maintaining useful lab notebooks in the context of scientific integrity and scientific data management.

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.

^ [Back to top](#)

Careers and employability

Our degree programmes are designed to provide you with the skills to tackle these global environmental challenges.

After completing this course, the employability options are extensive and include:

- Government agencies (Environment Agency, Met Office)
- Environmental consultancy and management
- Climate research
- Accountancy and insurance brokers
- Education
- Renewable energy industries

^ [Back to top](#)

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 - £10,050

Year in industry fee - £2,010

Year abroad fee - £1,508 (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 UK fees shown are for the academic year 2027/28. The international fees shown are for the academic year 2026/27 and will be subject for change for the academic year 2027/28. 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 could include expenses such as field clothing and sustenance (food and drinks) during fieldwork.

Find out more about the [additional study costs](#) that may apply to this course.

^ [Back to top](#)

Entry requirements

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

A levels

ABB
including two sciences.

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

- [Earth, Environmental and Marine Sciences \(4 year route including a Foundation Year at Carmel College\)](#) BSc (Hons)
- [Chemical Sciences BSc \(Hons\) \(4 year route including a Foundation Year at Carmel College\)](#) BSc (Hons)

T levels

T levels are not currently accepted.

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: For science A levels that include the separately graded practical endorsement, a "Pass" is required.

BTEC Level 3 National Extended Diploma

D*DD in relevant diploma

International Baccalaureate

32 points overall and no score less than 4 and including 5 in two HL science subjects, or pass the IB Diploma with 6,5,5 in three Higher Level subjects (including two HL science subjects).

Irish Leaving Certificate

H1, H2, H2, H2, H3, H3 including H2 or above in two sciences

Scottish Higher/Advanced Higher

Not accepted without Advanced Highers at ABB including two sciences

Welsh Baccalaureate Advanced

B in the Welsh Baccalaureate, plus AB at A level in two science subjects.

Access

Pass Access to HE Diploma in a relevant subject with 45 Level 3 credits with 33 at Distinction (including 15 credits in two different science subjects) and 12 at Merit.

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.
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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

6.0 overall, with no component below 5.5

TOEFL iBT

If you took a TOEFL test on or before 20 January 2026, you'll need 78 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 overall, with 4 or above in all components. TOEFL Home Edition not accepted.

Duolingo English Test

115 overall, with speaking, reading and writing not less than 105, and listening not below 100

Pearson PTE Academic

59 overall, with no component below 59

LanguageCert Academic

65 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 C overall, with a minimum of grade 2 in speaking. Speaking must be separately endorsed on the certificate. 0511: Grade C overall.

Cambridge IGCSE Second Language English 0993/0991

0993: Grade 5 overall, with a minimum of grade 2 in speaking. Speaking must be separately endorsed on the certificate. 0991: Grade 5 overall.

Cambridge ESOL Level 2/3 Advanced

169 overall, with no paper below 162

International Baccalaureate English A: Literature or Language & Literature

Grade 4 at Standard Level or grade 4 at Higher Level

International Baccalaureate English B

Grade 6 at Standard Level or grade 5 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
5.5 overall, with no component below 5.5	6 weeks	On campus or online
5.5 overall, with no component below 5.0	10 weeks	On campus or online

Your most recent IELTS score	Pre-sessional English course length	On campus or online
5.0 overall, with no component below 5.0	12 weeks	Online
5.0 overall, with no component below 4.5	20 weeks	On campus
4.5 overall, with no component below 4.5	30 weeks	On campus
4.0 overall, with 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 6.0 overall, with no component below 5.5, for further details.

[^ Back to top](#)

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