BSC ENVIRONMENTAL SCIENCE 环境科学

June 22,2026
具体信息以官方网站为主
Please refer to the official website for specific programme information

XJTLU | ACADEMY OF LIFE AND NATURAL SCIENCES 生命与自然科学学院

CAREERS

More than 90% of graduates pursue further MSc or PhD study at top ranked international universities. Graduates of this programme will be well prepared for roles such as environmental consultant, governmental policy maker, environmental impact assessment specialist, laboratory scientist, geographic information systems analyst, ecosystem restoration engineer, environmental education officer, green technology specialist, and environmental health and safety (EHS) officer.

START DATE
Every September

ATTENDANCE
Full time

DURATION
Four years

SCHOOL
Academy of Life and Natural Sciences

2+2 STUDY
Available

QUALIFICATION
XJTLU
BSc Environmental Science
University of Liverpool
BSc Environmental Science

LOCATION
Suzhou

MODULES

Fieldwork is a core part of the programme in all years.

YEAR ONE

In the UK, undergraduate programmes typically last three years, whereas in China, they normally span four years. Accordingly, at Xi'an Jiaotong-Liverpool University (XJTLU), students who have already obtained the required credits and qualifications may be admitted directly into Year 2 of their chosen programme. The majority of students, however, enter Year 1, where they take foundation courses that include language training, basic mathematics, and subject-specific preparatory modules.

YEAR TWO

Core modules

- GEOGRAPHIC INFORMATION SYSTEMS
- INTRODUCTORY FIELD SKILLS FOR ENVIRONMENTAL SCIENTISTS
- QUANTITATIVE FIELD SKILLS, DATA COLLECTION AND ANALYSIS FOR ENVIRONMENTAL SCIENTISTS
- INTRODUCTION TO ECOLOGY, EVOLUTION AND EARTH SYSTEM
- INTRODUCTION TO ENVIRONMENTAL CHEMISTRY AND MONITORING
- GENERAL LABORATORY TECHNIQUES AND EXPERIMENTS IN ENVIRONMENTAL SCIENCE
- FIELD/LABORATORY EXPERIMENTS OF ENVIRONMENTAL MONITORING
- FOUNDATIONAL RESEARCH SKILLS FOR ENVIRONMENTAL SCIENTISTS
- INTRODUCTION TO ARTIFICIAL INTELLIGENCE FOR SCIENCE
- ENTREPRENEURIAL EDUCATION IN SCIENCE: INNOVATING FOR TOMORROW

YEAR THREE

Core modules

- RESEARCH DESIGN
- REMOTE SENSING OF THE ENVIRONMENT
- BIOGEOCHEMISTRY AND GLOBAL CHANGE
- AIR AND THE ENVIRONMENT
- SOIL AND THE ENVIRONMENT
- AQUATIC ECOLOGY
- ENVIRONMENTAL INSTRUMENTAL ANALYSIS
- MICROBIAL ECOLOGY
- WATER AND THE ENVIRONMENT
- ENVIRONMENTAL POLICY AND GOVERNANCE
- TERRESTRIAL ECOLOGY
- SUSTAINABLE ENERGY
- INTRODUCTORY STATISTICS FOR NATURAL SCIENCES
- ADVANCED STATISTICS FOR NATURAL SCIENCES
- ENVIRONMENTAL ECONOMICS FOR ENVIRONMENTAL SCIENCES
- CLIMATE CHANGE AND RISK

YEAR FOUR

Core modules

- FINAL YEAR PROJECT
- ENVIRONMENTAL IMPACT ASSESSMENT
- ENVIRONMENTAL RESTORATION AND REMEDIATION - FIELD CLASS
- MANAGED ECOSYSTEMS
- ENVIRONMENTAL ENGINEERING
- ENVIRONMENT AND SOCIETY
- CRITICAL THINKING AND APPLIED SKILLS IN SCIENCE RESEARCH

Optional Modules

- QUALITATIVE RESEARCH METHODS IN MANAGEMENT RESEARCH
- CORPORATE SOCIAL RESPONSIBILITY
- RISK MANAGEMENT FOR BUSINESS
- INTERNATIONAL MARKETING
- BUSINESS IN THE ASIA - PACIFIC REGION
- ENVIRONMENT AND SOCIETY
- ENVIRONMENTAL MANAGEMENT
- CRITICAL READING, REVIEWING & WRITING SCIENTIFIC ENVIRONMENTAL & ECOLOGY PAPERS
- HUMANS AND ENVIRONMENTAL POLLUTION

Xi'an Jiaotong-Liverpool University 西交利物浦大学

BSC ENVIRONMENTAL SCIENCE

Environmental health is the cornerstone of sustainable development. Our undergraduate programme focuses on cultivating students' global perspective and practical skills, with a curriculum covering core topics including biodiversity conservation, climate change, pollution control, ecological restoration, and One Health.

Programme Director:
Dr. Lu Zhang
Lu.Zhang03@xjtlu.edu.cn

The institution of environmental sciences

KNOWLEDGE AND SKILLS

By the time you graduate from the BSc in Environmental Science, you will have:

- Problem-solving competencies across the programme's focus areas of ecological, geophysical, and chemical systems;
- The ability to demonstrate advanced scientific literacy, including an understanding of how scientific knowledge is constructed in these areas;
- A firm grasp of fundamental and applied scientific perspective, with proficiency in laboratory and field-based analysis; and
- The ability to communicate regional and global issues and their societal implications from a scientific perspective, fostering multicultural understanding of environmental issues and their importance.

WHY SHOULD I STUDY ENVIRONMENTAL SCIENCE AT XJTLU?

- Use a hands-on approach to learn the science of environmental processes at local, regional, national, and global scales;
- Gain knowledge from research-led teaching with emphasis on research in areas where humanity faces severe challenges, such as biodiversity loss, climate change, and disruption of the earth's chemical cycles;
- Uncover the complexities in environmental decision-making and learn ways to engage in environmental management as you gain insights from industry leaders and non-governmental organisations;
- Benefit from new purpose-built laboratories (20 million rmb) supporting lab practicals and undergraduate research and acquire advanced laboratory techniques and data analysis skills, including geographical information systems;
- Earn two degrees: an xjtlu degree recognised by china's ministry of education and a globally recognised degree from the university of liverpool, a member of the russell group of leading uk universities.

Xi'an Jiaotong-Liverpool University
西交利物浦大学

环境科学

环境健康是可持续发展的基石。
本专业聚焦生物多样性保护、气候变化、污染治理、生态修复及全健康等关键领域，致力于培养兼具可持续发展理论素养与环境治理技术能力的专业人才。

专业负责人：
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知识与技能

本专业毕业生将具备以下能力：

- 运用生态学、地球物理学、化学等学科知识解决环境问题；
- 具备较高的科学素养，理解本专业中各学科的科学知识是如何构建的；
- 扎实掌握基础科学和应用科学的相关观点，精通基于实验室和基于现场考察的研究分析；
- 无论对象是科研人员还是社会公众，都能够站在科学的角度介绍区域性和全球性问题及其与社会的关系，从而促进各群体对于环境问题及其重要性的跨文化理解。

专业特色

- 在实践操作的过程中学习有关当地、全国乃至全球范围内环境进程的科学知识
- 从研究导向型教学中汲取知识，尤其是在人类面临严重挑战的领域，如生物多样性丧失、气候变化以及地球的化学物质循环遭破坏等
- 了解环境政策决策的复杂性，从行业领袖和非政府组织那里获取见解，并探索参与环境管理的方法
- 本专业耗资1700万元人民币新建的实验室，支持学生的实验室实践和本科生研究项目，包括学习复杂的实验室技术和数据分析技能
- 毕业生可同时获得中国教育部认可的西交利物浦大学学位和国际认可的英国利物浦大学学位

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就业

毕业生可胜任的工作岗位包括：环境顾问、环境政策领域的公务员、环境影响评估专家、实验室科研人员、地理信息系统分析师、生态系统修复工程师、环境教育人员、环保科技专家、企业环境健康与安全专员等。

开始时间
每年9月

教学形式
全日制

学制
四年

学院
生命与自然科学学院

2+2 留学模式
可选

学位证书
西交利物浦大学
环境科学
利物浦大学
BSc Environmental Science

学习地点
苏州

课程

第一学年

在英国，本科阶段学习学制三年，而中国本科阶段学制为四年。因此，对于已获得相应学分、证书的学生，在我校可以直接升入二年级进行专业学习；大多数学生则是进入一年级进行基础课学习，主要课程包括语言课程、基础数学课程和专业相关的预备课程。

第二学年

核心课程

- 地理信息系统
- 环境科学野外研究入门技能
- 环境科学的定量野外研究技能，数据收集和分析
- 生态学、演化论和地球系统简介
- 环境化学与监测导论
- 环境科学的常规实验室技术
- 环境监测的野外/实验室技术
- 环境科学的科研基础技能
- 面向科学的人工智能导论
- 科学领域的创业教育：面向未来的创新

第三学年

核心课程

- 研究设计
- 环境遥感
- 生物地球化学和全球变化
- 空气与环境
- 土壤与环境
- 水生生态学
- 环境仪器分析
- 微生物生态学
- 水与环境
- 环境政策与治理
- 陆地生态学
- 可持续能源
- 自然科学初级统计学
- 自然科学高级统计学
- 环境经济学
- 气候变化与风险

第四学年

核心课程

- 毕业设计
- 环境影响评价
- 环境修复和治理-野外课程
- 可控生态系统
- 环境工程
- 环境与社会
- 科学研究中的批判思维和应用技术

可选课程

- 管理研究中的定性研究方法
- 企业社会责任
- 商业风险管理
- 国际营销
- 亚太地区商业
- 环境与社会
- 环境管理
- 科技阅读，评审与写作
- 人类与环境污染

XJTLU

UNDERGRADUATE

BSc
Environmental Science
环境科学

As an interdisciplinary discipline, environmental science covers chemistry, geography, mathematics, and humanities. In this programme, you will be committed to promoting global biodiversity conservation, and providing technical and policy support for solving environmental problems. The ultimate goal will be to achieve the harmonious coexistence between human and the natural environment.

You will learn to apply problem-solving skills to some of the greatest challenges facing humanity today. You will also gain field skills through international field trips in coastal and mountain environments, learning about surveying and interviewing key community stakeholders.

By studying this programme, you will:

use a hands-on approach to learn the science of environmental processes at local, regional, national, and global scales;

gain knowledge from research-led teaching with emphasis on research in areas where humanity faces severe challenges, such as biodiversity loss, climate change, and disruption of the earth's chemical cycles;

uncover the complexities in environmental decision-making and learn ways to engage in environmental management as you gain insights from industry leaders and non-governmental organisations;

benefit from new purpose-built laboratories (20 million RMB) supporting lab practicals and undergraduate research and acquire advanced laboratory techniques and data analysis skills, including geographical information systems;

earn two degrees: an XJTLU degree recognised by China's Ministry of Education and a globally recognised degree from the University of Liverpool, a member of the Russell Group of leading UK universities.

本专业帮助学生全面了解自然世界和环境问题，系统掌握地质环境和生态系统的复杂性，探索全球范围内环境演变的过程及规律，培养解决环境问题的能力。

环境科学作为一门交叉学科，涵盖了化学，地理，数学，以及人文学科等各方面的知识。环境专业培养的学生将致力于促进全球生物多样性保护，并对解决环境问题提供技术与政策支持，从而实现人与自然环境的和谐共处。

学生将学习如何从解决问题的角度应对当今人类所面临的重大挑战。学生还将通过参与国际考察项目，深入了解沿海和山地环境等不同生态类型，学习调查和访问当地社区的利益相关方，从而累积丰富的实地考察技能。