



MANCHESTER
1824

The University of Manchester

ENVIRONMENTAL SCIENCE AT MANCHESTER

GLOBAL ENVIRONMENTAL CHALLENGES

“ The great thing about the Environmental Science course is that the content includes topics which cover all scientific disciplines. I don't believe that any other course could cover such a wide range of topics in such detail. The range of topics covered by the course means that you're constantly learning and never doing the same thing twice! ”

Alexandra Cordeaux
BSc Environmental Science

Environmental Science is the study of how physical and biological processes maintain and interact with life, including the study of how humans affect the natural world. A science-based understanding of our environment is vital to ensure that human needs are met in a sustainable way, so that everyone will have access to clean water, clean air, and the earth resources required for agricultural and industrial activity.

IS ENVIRONMENTAL SCIENCE FOR YOU?

Based in the School of Earth, Atmospheric and Environmental Sciences (SEAES), our multidisciplinary Environmental Science degree also draws on important contributions from other Schools within the University – particularly Life Sciences, and Environment and Development.

This course provides essential training for scientists with an awareness of environmental problems and solutions who can communicate effectively with others.

We recognise the importance of fieldwork in the environmental sciences here at Manchester so you will undertake relevant, integrated and exciting fieldwork in each of your three years. You will also have the opportunity to take extra fieldwork options in the French Alps, Ecuador, Greece and South Africa. All our core compulsory field work is free – you just have to pay for food.

Our Environmental Science graduates find employment in a diverse range of jobs, including environmental consultancy, management, and as environmental scientists working in the field or laboratory.

REWARDING EXCELLENCE

We reward excellence and offer bursaries to applicants with excellent A-level results. You can also apply for a range of industrial scholarships once you have registered on your chosen degree. Each year we present awards to the top performers and recognise their achievements.

ENTRY REQUIREMENTS

Our typical A-level offer is AAB/ABB for the three year course, which must include one science subject.

For further information about entry requirements, email us directly:
ug-earth-sci@manchester.ac.uk

Or visit: www.manchester.ac.uk/undergraduate/courses/search2013/bysubject/?index=EA

“ I especially feel that the annual field trips are an integral part of the course as they have allowed me to gain valuable scientific surveying skills and put the theory I learnt in class into practice. It is rare that a university organises a compulsory field course every year and I believe that it is a great opportunity provided by Manchester, as it has also allowed me to really get to know my course-mates and work well as a team.”

Sarah Perry
BSc Environmental Science

SEE THE WORLD DIFFERENTLY



A UNIQUE FOCUS

The degree course focuses on equipping you with the skills and scientific knowledge required by industry today. Through lectures, case studies, seminars and group-based project work, you will examine environmental issues, studying established theories, scientific concepts and cutting-edge research.

The course covers a wide range of topics: everything from the atmosphere and pollution, to nuclear and water giving you a unique understanding of the environment and sustainability. You also complete a field course to Malham, led by Dr Steve Boulton. The field course trains you in design of investigations, analysis of data and practical techniques that are regularly used in the environmental science professions. The field site has been carefully selected to allow for a variety of environmental investigations that are representative of environmental scientists employed in professional practice.

In the third year, you complete applied environmental course units such as Organic Geochemistry, Geotechnics and Engineering Geology, Hydrogeochemistry, Meteorology and Atmospheric Physics, Geomicrobiology, Nuclear Environmental Science. You also complete a field course to Tenerife, where you have the opportunity to study a complete environmental system and links between different aspects of the system, including volcanology, erosion processes, agricultural impacts, and controls on biodiversity. In addition you will be working with renowned international academics, who are at the forefront of environmental teaching and research. Third year projects can involve anything from working with a cloud chamber, to analysing toxic waste, or working out the impact of wind farms. A world of opportunities awaits you.

BRINGING INDUSTRY TO YOU

We have one of the best careers services in higher education. We work closely with employers and help them to recruit the best students through a wide range of events, including careers seminars and school careers events that attract regional, national and international companies.

Our Industrial Liaison Committee ensures that what we teach maps onto the skills required in industry. Whatever your plans after graduation, we can give you bespoke, personal support and development opportunities to help improve your prospects.

SUPPORT WHEN YOU NEED IT

As an undergraduate student in SEAES, you will have access to a whole range of support services. We have an undergraduate resource room that is run by staff to help facilitate students' learning; this includes mentoring schemes and drop-in classes. We also provide all students with a personal tutor throughout their degree.

MAKING AN IMPACT

Research carried out by our academics has had a significant impact on environmental policy. Our scientists advise both industry and government on a wide range of issues: for example, we have helped to improve the MetOffice weather prediction models, advised on nuclear and toxic waste disposal, as well as on carbon dioxide sequestration, and located safe drinking water in South East Asia.

// I feel that Manchester has offered me an opportunity to both take a scientific approach to environmental problems while giving me the opportunity to develop independent critical thinking. It has also given me an opportunity to look at the ethical and humanistic side of environmental problems. //

Theo Orjans
BSc Environmental Studies

DEVELOP YOUR CRITICAL THINKING



YEAR ABROAD

Between Years 2 and 3 you will spend a year studying environmental topics at one of our partner universities. You will follow course units that complement those available here at Manchester.

During this time you will write a reflective journal in which you will document the insights you have gained from both your period of study and from engagement with the citizens of the host country. When you return you will give a seminar to Year 2 students explaining what you have learned from your time abroad.

KEY STAFF

Dr Roy Wogelius (Course Director) Works extensively in the Research Centre for Radwaste and Decommissioning, where he heads projects in understanding the mobility of radionuclides.

Prof Dave Polya Heads an international network of European and Asian partners researching ground water contamination with arsenic (probably the largest mass poisoning in the history of mankind)

YEAR IN INDUSTRY

Our aim in providing this degree course is to allow students to gain experience of applying their environmental science understanding in a professional environment by working for a year in an organisation within the sector. You will benefit from this experience by gaining business skills and through direct learning. This placement will take place at the end of the second year of study, and up to this point the course is identical to our BSc (Hons) in Environmental Science (please see course outline of the Environmental Science degree for further information). Help will be given in identifying a suitable host organisation, and students on the programme will be supported through their placement by regular contact with a member of academic staff.

Prof Jon Lloyd Leads a multidisciplinary geomicrobiology group working at the interface between biology and geology, focusing on the mechanisms of microbial metal reduction, with emphasis on the environmental impact and biotechnological applications.

Prof Geraint Vaughan Fellow of the Royal Meteorological Society and Director of Weather Research for the National Centre for Atmospheric Science.

WHY ENVIRONMENTAL SCIENCE AT MANCHESTER?

- Diverse exciting fieldwork opportunities, heavily subsidised by the University, as part of your course
- Cutting-edge research that informs our taught courses
- Curriculum tailored towards maximising job prospects, taking input from our Industrial Liaison Committee of environmental employers
- Optional units involving the Manchester Advanced technology enterprise, where you will learn skills to set up your own business



BSc (Hons) Environmental Science



BSc (Hons) Environmental Science with a year in industry



BSc (Hons) Environmental Science with a year abroad

“ I enjoyed my degree so much at Manchester that I am currently undertaking a four year PhD in the department in Applied Environmental Sciences ”

Ashley Brown
BSc Environmental Science

OPPORTUNITIES FOR FURTHER STUDY



WHY THE UNIVERSITY OF MANCHESTER?

The largest of the prestigious Russell Group of Universities, Manchester has much to offer you. As well as outstanding facilities, resources and opportunities found within an institution of this calibre, the University is highly respected amongst academic and business communities alike – a respect that is conferred upon its graduates.

As a Manchester graduate, you will join a prestigious hall of fame, including 25 Nobel Prize winners among our current and former staff and students. We have more Nobel Prize winners on our current staff than any other UK university. In addition employers, actively target University of Manchester graduates, giving you excellent job prospects.

MEET OUR HEAD OF SCHOOL

“As Head of School of Earth, Atmospheric and Environmental Sciences at The University of Manchester, I warmly welcome your interest and am pleased to provide you with some background to your Environmental Science degree at Manchester.

Our School is home to 47 academic staff with a wide range of interdisciplinary skills. They are world leaders in the areas of geomicrobiology, molecular geochemistry, mineralogy, environmental geoscience, atmospheric climate processes and air quality, isotope geochemistry, cosmochemistry, palaeontology, structural geology, and petroleum geoscience. Our staff members are internationally leading researchers and are dedicated to providing excellent training across our taught degree courses. Our students value close contact with our staff, who provide a supportive and stimulating learning experience. Should you choose to join us in Manchester, you can expect a degree that offers you excellent practical and theoretical training in all aspects of the discipline, and provides a structured approach to understanding scientific concepts, building core skills to independently analyse challenging problems.

As an atmospheric scientist myself, I can certainly say that knowledge of how the whole Earth system works and the development of key analytical skills are vital to analyse and interpret complex natural systems, and to address many of the current challenges in the world at the present time. These skills are very much in demand by employers and our close interaction with a wide range of industries has helped us to develop our courses to meet their future needs, providing excellent employment opportunities, whilst also providing you with skills you need to address our globally important current and future research challenges.

We look forward to you applying to Manchester to become part of a stimulating learning environment in a leading University. We are lucky to be located in the centre of an exciting international city and I feel sure you will find Manchester a vibrant, multicultural place to study and live”.

Prof Hugh Coe, Head of School

Contact us:
www.manchester.ac.uk/seaes

