













Why choose Earth and environment at Leeds?

1st in the UK for the quantity of world-leading research (Latest REF results 2014)

Top 5 in Earth Sciences for academic reputation (QS World University Rankings 2016)

Top 10 in Environmental Science for academic reputation (QS World University Rankings 2016)

Top 10 in Earth Sciences (The Guardian University Guide 2017)

The only Russell Group university to offer an IEMA accredited undergraduate degree

REF (Research Excellence Framework)
IEMA (Institute of Environmental Management and Assessment'



CONTENTS | www.see.leeds.ac.uk 1

Contents

WELCOME TO THE S	CHOOL OF EARTH AND ENVIRONMENT	
Why study Earth and e	environment at Leeds?	2
Why study an Earth so	4	
Why study an environr	8	
Meet our academics		10
Choosing the right deg	12	
Four-year industrial de	15	
Four-year Integrated M	16	
Fieldwork		18
COURSES		
Environment and Busi	ness	20
Environmental Science		22
Meteorology and Clima	24	
Sustainability and Envi	26	
Geological Sciences	28	
Geophysical Sciences		30
Your career		32
Life at Leeds		34
How to apply		36
Entry Requirements		37

Important Information

Information provided by the University such as in presentations, University brochures and the University website, is accurate at the time of first disclosure. However, courses, University services and content of publications remain subject to change. Changes may be necessary to comply with the requirements of accrediting bodies or to keep courses contemporary through updating practices or areas of study. Circumstances may arise outside the reasonable control of the University, leading to required changes. Such circumstances include, industrial action, unexpected student numbers, significant staff illness (where a course is reliant upon a person's expertise), unexpected lack of funding, severe weather, fire, civil disorder, political unrest, government restrictions and serious concern with regard to the transmission of serious illness making a course unsafe to deliver. After a student has taken up a place with the University, the University will look to give early notification of any changes and try to minimise their impact, offering suitable alternative arrangements or forms of compensation where it believes there is a fair case to do so. Offers of a place to study at the University will provide up to date information on courses. The latest key information on courses, entry requirements and fees can be found at www.leeds.ac.uk/coursefinder. Please check this website before making any decisions.



Why study Earth and environment at Leeds?

The School of Earth and Environment at the University of Leeds is unique in bringing together physical science disciplines from Earth sciences, environmental sciences, and environmental social sciences - the study of human interaction with the environment.

FLEXIBLE DEGREE CHOICES

Leeds leads the way with its choice of flexible degree options in Earth and Environment. From our three or four-year BA/BSc courses to our Integrated Masters with a year abroad we offer you invaluable cultural, industrial and professional experiences to prepare you for your career or further study.

The structure of our degrees provides you with both core elements and optional modules that give you the flexibility to tailor your course to your interests. Most of our courses have recommended pathways so you can specialise in the subject area you find most interesting – developing broader knowledge and skills to support your career aspirations.

EXCITING FIELDWORK LOCATIONS

We believe the best way to learn about the planet and environment is through practical experience. Field classes are at the heart of our degrees – so you could study the geophysics of active volcanoes on Lanzarote, launch weather balloons on the Isle of Arran or gain a deeper understanding of water management in Amsterdam while cycling through the city. Fieldwork is an important part of many final year research projects.

STUDENT EXPERIENCE

Being a student at university is about making the most of all the opportunities available to you. Not only will this help you settle in to university life and feel part of the School community, but it also enhances your student experience through the skills and knowledge that you will gain.

We have a dedicated Student Experience Officer whose role is to help you make the most of your time at Leeds. They provide

We pride ourselves on bringing so much of our of our teaching, whether it be on climate change,

Professor Simon Bottrell, **Head of School** opportunities for you to engage with staff and students in the School and keep you informed about extra-curricular activity you can get involved in.

The School also has its own societies and sports club with most sports represented and activities for those who want to have fun instead of competing at university level.

STATE-OF-THE-ART FACILITIES

You'll have access to excellent teaching and research facilities both within the School and as part of one of the largest and best-equipped universities in the UK. The School of Earth and Environment's £23.5m building boasts a suite of state-of-the-art laboratories including a ground-breaking £200k Earth Visualisation teaching laboratory, a bank of microscopes, a 3-D suite and a computer suite which includes over £10m worth of industry standard software packages. In addition to the teaching laboratories, you can use the School's specialist research facilities during your final-year project work.

ANNUAL AWARD SCHEME

We have a non-competitive annual award scheme rewarding all students who maintain a good academic performance or whose performance shows a marked improvement year-on-year.

LEADING RESEARCH

Engage with an international community of scientists and be taught by eminent lecturers at the forefront of their specialism who bring knowledge and passion into their subjects. Your lectures will be based on research that is happening now.

The School has an excellent reputation for world-class research and innovative teaching. The latest Research Excellence Framework (2014) ranks us 1st in the UK for the quantity of world-leading University Rankings 2016).

We also lead international research across a broad spectrum of Earth and Environmental Science including links to society, business Climate Change Economics and Policy; Industrial Energy, Materials and Products; Polar Observation and Modelling; and Observation and Modelling of Earth quakes, Volcanoes and Tectonics.

Four of our academics are lead authors of the Intergovernmental Panel on Climate Change – an international body that assesses climate change and influences policy.



Why study an Earth science course?

Geologists and geophysicists are the forensic scientists of the Earth, looking for clues left behind in ancient rocks by flowing water or molten magma, or analysing earthquake waves as they pass through the Earth.

If you love the outdoors and want to understand how physical processes have shaped the complexity of our planet, our Geological Sciences degree is for you. A geologist must be able to visualise in three dimensions – a skill that is valued by employers in the geotechnical, petroleum and minerals industries.

If you have excellent mathematical skills and enjoy producing consider our **Geophysical Sciences** degree. Geophysics is the most effective tool for understanding how our planet works. Geophysicists are vital to the petroleum industry, processing the seismic data that is essential for oil and gas exploration.

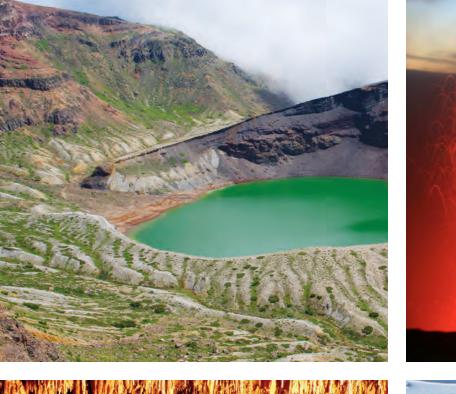
Our geology and geophysics courses are firmly based in physical science, taking account of new discoveries and offering you every opportunity to apply your practical scientific skills. Our exceptionally broad group of specialist academic staff bring their exciting geosciences research into your learning experience so you can benefit directly from their knowledge and expertise.

HIGHLIGHTS

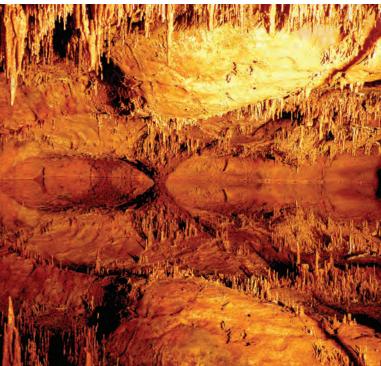
- Study abroad at one of our prestigious partner universities through our Integrated Masters. Our MGeol and MGeophys degrees offer you a chance to study at campuses in the USA, Canada, Australia and New Zealand.
- Prepare for a career in a range of geoscience sectors. Our specialist degree pathways in petroleum, minerals and the environment let you follow your interests and are supported by close links with our industrial partners.
- Design and carry out your own independent research project in your final year. Work alongside an academic supervisor to deliver a project that brings together the skills and knowledge you have gained during your degree.
- Engage with academics who are at the cutting edge of research. The School co-hosts the National Centre for the Observation and Modelling of Earthquakes, Volcanoes and Tectonics.
- Fast-track your career progression to professional Chartered Geologist status. Our geology and geophysics degrees are accredited by the Geological Society of London – the national body that represents and regulates professional geoscience



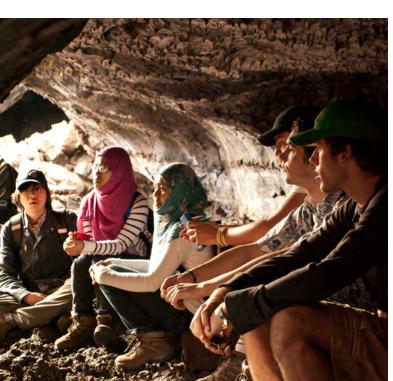


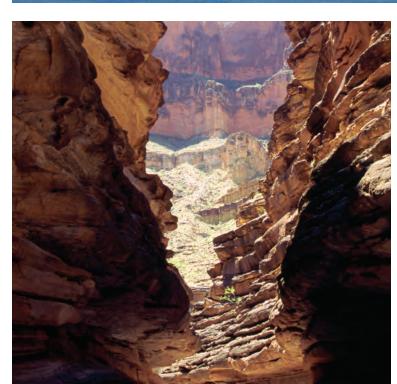
























Why study an environment course?

The environment affects us all – from the complex relationships between humans and the environment, to major global issues such as pollution and climate. As the effects of global environmental changes become clearer across the world, demand for graduates with knowledge of these issues continues to grow.

If you choose an environment-related degree, you'll have an interest in the natural environment and the sustainable use of the Earth's resources. At Leeds we offer a range of courses that are designed to inspire and challenge you and whose flexibility will shape your degree experience in preparation for your future career.

If you're enthusiastic about delving into the Earth's physical and chemical processes and exploring human influence on the environment you should consider **Environmental Science**. You will study real-world environmental problems and benefit from frequent contact with practising experts in this field.

Meteorology and Climate Science is suited to you if you have a strong background in physical sciences. It develops your scientific understanding of the complex behaviour of Earth's

An increasing number of organisations need graduates and the ways of finding sustainable solutions through careful management. Our Sustainability and Environmental **Management** degree explores these topics through the study of human interaction with the environment. By comparison, our Environment and Business course explores business approaches that address long-term solutions to environmental and social challenges.

Be taught by academics whose research tackles the broad range of major environmental challenges we all face. The School of Earth and Environment has the UK's largest groups of environmental and social scientists working together.

HIGHLIGHTS

- Study abroad at one of our prestigious partner universities through our Integrated Masters. Our MEnv degrees offer you a chance to study at campuses in the USA, Canada and Australia.
- Design and carry out your own independent research project in your final year. Work alongside an academic supervisor to deliver a project that brings together the skills and knowledge you have gained during your degree.
- Meteorology and Climate Science degrees are accredited by the Royal Meteorological Society. Our Sustainability and Environmental Management degrees are accredited by the Institute of Environmental Management and Assessment (IEMA). Leeds is the only Russell Group University to offer an IEMA accredited undergraduate degree.
- Engage with academics who deliver internationally recognised research from the Sustainability Research Institute (SRI) and Institute for Climate and Atmospheric Science (ICAS) based in the School.
- Be at the centre of where groundbreaking research is happening. The School is the headquarters of the UK's national centres in Atmospheric Sciences; Climate Change Economics and Policy; Industrial Energy, Materials and Products; Polar Observation and Modelling and a major contributor to Leeds' Priestley International Climate Centre initiative.







Meet our academics

Leeds is a research intensive university and part of the prestigious Russell Group*. As a student at the School of Earth and Environment, you will interact with academics who are experts in their field and be informed by research as it unfolds in the real-world.

Find out about our leading academics who are pioneering solutions to some of the key challenges facing today's society and industry...



Dr Dominick Spracken Leeds Ecosystem, Atmosphere and Forest

The world's forests influence climate through a complex set of physical, biological and chemical processes. My research uses numerical models and satellite data to help understand these processes and better predict the impacts of deforestation on climate.

My work demonstrated that clearing forests to grow crops for biofuels leads to large carbon emissions. In light of these findings, the UK Government amended its biofuel policy to include mandatory sustainability criteria. Along with other researchers from Leeds we established the United Bank of Carbon, a charity bringing academics and business together to help protect the world's forests.

I teach about forests and climate in a module called Terrestrial Biosphere in the Earth System. I also teach Environmental Research and Career Skills, preparing students for their final year research project. I also run the Leeds Forest Observatory, where our students collect and analyse data to improve our understanding

Dominick was awarded the Philip Leverhulme Prize in 2015 in recognition of his research.



Dr Tracy Aze Earth Surface Science Institute

I am a lecturer in Marine Micropalaeontology and principally work on a group of tiny single celled organisms called planktonic foraminifera that live in the oceans. They have an exceptional fossil record and I use it to investigate how evolution works over long time-scales and how biodiversity responds to climate change.

I have recently contributed to a United Nations Environment Programme publication aimed at informing policy makers and the general public about the risks associated with ocean acidification in response to elevated levels of atmospheric carbon dioxide.

I currently teach the Introduction to Oceanography and Oceanography in the Earth System modules on some of our BSc courses.

This allows me to draw not only from my own research, but also from some of the cutting edge research that is being carried out by my colleagues and collaborators here in Leeds and from around the UK.

Tracy was awarded the Lyell Fund this year (2016) from the Geological Society of London for making a significant contribution to the science.



Professor John Barrett Centre for Industrial Energy, Materials and Products

My research addresses one of the greatest challenges that humanity faces; climate change.

With direct links to the UK Government, my research understands how our lifestyles choices affect energy use and Greenhouse Gas Emissions considering the role of policy to reduce these impacts. The techniques that I developed as part of my research are now used by numerous government departments to understand the consumer emissions of the UK as well as the carbon emissions embedded in products.

I am currently the Director of the national Centre for Industrial Energy, Materials and Products. The centre aims to understand the role of citizens, industry and government to significantly reduce our energy demand.

I am also a lead author for the Intergovernmental Panel on Climate Change (IPCC), producing guidance for all government across the world on reducing energy use.

| MEET OUR ACADEMICS | www.see.leeds.ac.uk 11





My research examines why people engage in sustainability related behaviour both within and outside the workplace. Having a background in business management my key aim is to encourage organisations to identify opportunities to make a positive contribution to environmental and social wellbeing, while also maintaining a focus on profitability.

I am really interested in what drives decisionmaking and behaviour in organisations and the factors that can help and hinder progress towards sustainability goals. I work closely with organisations to conduct research that is both scientifically relevant and has practical impact.

I am the programme leader for the Environment and Business degree and also teach the module *Tools and Techniques for Business, Environment and Corporate Responsibility,* where students learn the theory of different tools and techniques and then work with local organisations to identify how these tools could be applied to improve their sustainability performance.



Professor Andrew Shepherd Centre for Polar Observation and Modelling

I am a Professor of Earth Observation at the University of Leeds. My research uses satellites to measure changes of the Antarctic and Greenland ice sheets to understand their interaction with the global climate system, and to establish their contribution to global sea level rise – one of the main indicators of climate change.

I also have a keen interest in the calibration of satellite systems using ground-based observations, and in the development of novel satellite sensors to tackle problems in geophysical research.

To do all of this, I work closely with technical experts in space agencies and in the space industrial sector, with scientific collaborators in glaciology, meteorology, oceanography, and ice sheet modelling, and with government agencies such as those tasked with coastal protection.

I also teach *Earth Observation from Space*, which is a module that most of our BSc degrees offer. It covers the main techniques by which space-borne satellites can observe the chemical composition and properties of Earth's atmosphere and surface.



Dr Anja Schmidt Institute for Climate and Atmospheric Science

My research combines atmospheric science and volcanology to advance the current understanding of volcanic impacts and hazards. I quantify the impact of volcanism on atmospheric chemistry, climate, air quality, human health, ecosystems and civil aviation using atmospheric models and volcanological data.

I am an expert adviser to the government. My work on the gas and aerosol particle hazards from Icelandic volcanism has had a direct impact on UK policy and planning for future eruptions.

If you choose the module *Frontiers in Environmental Research* I currently teach a lecture on volcanic eruptions and lead the module *The Atmosphere of Planet Earth*, which gives you an introduction to the phenomena in Earth's atmosphere from the origin of life-sustaining air to present-day climate change.

Anja is a Research Fellow and completed her PhD at the School. She was awarded the George Walker Award for Volcanology in 2015, the William Smith Fund by the Geological Society of London and a Women of Achievement Award by the University this year (2016).

Choosing the right degree

The School of Earth and Environment's range of degree options gives you the opportunity to add value to your degree and broaden your university experience.

We offer four variants on most of our degrees to provide you with invaluable experience, and prepare you for further study, a career in industry or academia. Most of our courses include a choice of pathways that allow you to focus on a particular

- 1. Three-year degrees (BA/BSc)
- 2. Four-year industrial degrees (BA/BSc)
- 3. Four-year study abroad degrees (BA/BSc)
- 4. Four-year Integrated Masters (MEnv, MGeol, MGeophys)

THREE-YEAR DEGREES (BA/BSc)

Our traditional three-year BA/BSc degrees prepare you for your working career or for further study at Masters level.

FOUR-YEAR INDUSTRIAL DEGREES (BA/BSc)

industrial degree by securing an industrial placement in your third year before returning to Leeds to complete your final year of study. We assess your year in industry on a pass/fail basis, so it doesn't directly influence your degree classification.

It is a great way to improve your employability by gaining and transferable skills. See our Year in Industry page 15 for more details.

FOUR-YEAR STUDY ABROAD DEGREES (BA/BSc)

study abroad degree by spending an additional year overseas before returning to Leeds to complete your final year of study.

You do not apply directly to this course, instead you can register your interest with us once you've enrolled on the three-year degree. We assess your year abroad on a pass/fail basis, so it doesn't directly influence your degree classification.

Spending an additional year studying at an overseas university is a fantastic opportunity that will expand your networks, broaden your horizons and develop your confidence – giving you skills that employers look for in graduates.

FOUR-YEAR INTEGRATED MASTERS (MEnv, MGeol, MGeophys)

One of the advantages of studying at Leeds is that all of our four-year Integrated Masters include a year spent studying abroad at a partner university, rather than in the UK. This gives you the opportunity to experience new cultures, access to a range of new modules, and it counts towards your final degree classification.

This degree offers you fantastic value for money with a year abroad at a much reduced fee. Similar degrees at other universities generally don't offer you the chance to study abroad. On returning to Leeds you complete your final year of study at Masters level, leading to the award of an enhanced MEnv, MGeol or MGeophys qualification. This degree is an excellent route for experience that employers value. See our Four-year Integrated Masters page 16 for more details.

WHAT DO THEY LEAD TO?

Many of our BA/BSc graduates go on to pursue one of our MSc degrees. These qualifications are an excellent way to improve your employment prospects in a specific area such as exploration geophysics or environmental consultancy, or help you develop a career in research. University of Leeds graduates can also apply for an alumni discount on the MSc fees.

Our four-year Integrated Masters with a year abroad adds real value for those wishing to study a PhD or who are interested in a career in research.





Four-year industrial degrees (BA/BSc)

An industrial placement provides you with valuable experience to develop your employability skills while you earn a real salary, and could lead to a job offer from your employer after graduation.

to complete your degree.

The School has a dedicated Employability Officer who works alongside the Careers Centre, Academic Staff, employers and former students to ensure you are equipped with key skills required for employment. You can also expect guidance placement in the UK, or arrange Skype meetings if you choose to work overseas.

Organisations providing placements for our environment students have included local city councils, regional

Samsu

Support

Yorkshire Water.

petroleum companies in the oil industry.

Our geology and geophysics students have undertaken

geology consultancies and both geophysical services and

For example, in the past, students have worked for AECOM,

Arup, Asda, Atkins, British Waterways, Environment Agency,

The School has a dedicated Employability Officer who will support your career development.

Groundwork

Leap Environmental

Yorkshire Water Tara Mines

Soil Engineering Arcadis Field Studies Council

British Waterwavs **Unilever Mott Macdonald**

Next

Panasonic

Advisian

Four-year Integrated Masters (MEnv, MGeol, MGeophys)

If you're looking for a four-year Integrated Masters, we offer more than you might expect. Instead of staying in Leeds in your third year, you will spend a year studying abroad at one of our prestigious partner universities. On returning to Leeds you complete your final year of study at Masters level, leading to the award of an enhanced MEnv, MGeol or MGeophys qualification.

Your time spent overseas allows you to take new and exciting final degree classification. It's also a great way to experience a new culture, experiment with new ways of thinking and try a different way of living. This degree offers you fantastic value for money with a year abroad at a much reduced fee. Similar degrees at other universities generally don't offer you the chance to study abroad.

at those of you who expect to achieve the highest A-level grades. Places are limited and we expect you to achieve A*AA in A-levels, or equivalent grades in other qualifications. If you don't achieve these grades we will automatically reserve a place for you on the relevant BA/ BSc degree course, provided you meet the BSc entry requirements.

Some of our graduates have gone on to a PhD (often abroad), or a career in research, but the degree will also set you apart when seeking employment.

Value

Our Integrated Masters offer fantastic study year abroad.

MEnv OVERSEAS PARTNERS:

- University of Adelaide, Australia
- Dalhousie University, Canada

- York University, Canada Arizona State University, USA Pennsylvania State University, USA
- University of California (Berkeley), USA
- University of Illinois Urbana-Champaign, USA
- University of Wisconsin-Madison, USA.

MGeol/MGeophys OVERSEAS PARTNERS:

- Australian National University, Australia
- University of Adelaide, Australia
- University of Western Australia
- University of Queensland, Australia

- University of Calgary, Canada
- University of Toronto, Canada

- Pennsylvania State University, USA
- University of California, USA (4 campuses)
- University of Illinois Urbana-Champaign, USA.

are available for each degree scheme.



Watch a short video featuring Matt.

Fieldwork

Fieldwork is a key feature in all of our degrees – our students say this is one of the most enjoyable and sociable parts of the course and a great chance to get to know staff and fellow students better.

PRACTICAL EXPERIENCE

Our field classes are intensive but very rewarding. You gain valuable hands-on experience to complement the theory you have learnt, collecting and analysing data to develop and test hypotheses from your own observations.

DEVELOP YOUR SKILLS

Fieldwork is an excellent way to develop the individual research skills which are vital for your final year research project. You also develop personal skills such as communication and teamworking, qualities that make employers notice you.

STUDY THE WORLD

Depending on your degree you will visit a variety of field course locations across the world. From areas in the British Isles such as Ireland, the Lake District, Scotland, South Devon, Wales and Yorkshire, to destinations further afield including the Alps, Amsterdam, Cyprus, Greece, Lanzarote, Spanish Pyrenees and Tanzania.

The School heavily subsidises or covers the cost of all compulsory taught field courses, although you may have to supplement these trips depending on the destination you choose.

Travel

We offer exciting destinations such as Amsterdam, Cyprus, Lanzarote or Tanzania.

Our trip to Amsterdam was amazing. We were given the responsibility to carry out our own research: planning, choosing who to interview, getting in touch with people and going around the city to collect data. My research was on water management and adaptation to climate change. It was fun and a great opportunity to strengthen relationships with classmates. Amsterdam is beautiful, I loved exploring the city on my red bicvcle.

Paola Laini, BSc Sustainability and Environmental Management

| FIELDWORK | www.see.leeds.ac.uk 19

1 Sustainability and Business field trip, Amsterdam / 2 Environmental and Atmospheric Sciences field trip, Ogden / 3 Geophysics field trip, Malham / 4 Geology and Geophysics field trip, Spanish Pyrenees









Environment and Business

BA Environment and Business (3-year degree and 4-year study abroad degree) FN8C
BA Environment and Business (4-year industrial degree) FN51
MEnv Environment and Business (4-year Integrated Masters with a year abroad) FN02

This degree is ideal if you wish to combine your understanding of the natural environment with current business and management practice.

You will explore the opportunities and pressures facing businesses as a result of the contemporary environmental agenda, including issues of sustainability and corporate social responsibility. Spending a year in industry is a popular choice on this course. The year in industry gives you a chance to put your skills into practice, earn some money, and improve your employability.

Alternatively, you may choose to take advantage of exciting study abroad opportunities for example at Griffith University in Australia or Arizona State University in the USA.

YEAR 1

Study the underlying principles of business, the natural environment, and human impacts.

Fieldwork and study skills feature strongly in this course and provide a solid foundation for your later independent studies.

YEAR 2

Develop your business skills through a range of core and optional modules influenced by your own interests. In this year you will have interaction with business executives and will work on real world issues in environment and business.

As you extend your analytical skills you will gain a deeper understanding of the issues regarding the interface between the environment and business practices.

FINAL YEAR

Produce your own work at a professional level in your final year project. You will be able to choose modules that belong to one of the tailored pathways enabling you to pursue your specialist interests which may include: climate change, law, marketing and advertising, business management, or corporate strategy.

If you choose the MEnv Integrated Masters, you will spend your third year studying at one of our international partner universities, returning to take a final year of Masters-level modules and independent research.

PATHWAYS

Choose from one of four pathways to acquire skills in your chosen area and create a more specialised degree.

Governance and Regulation – Complements your degree course with a focus on laws and regulations, with modules from the School of Law.

Strategy and International Business – A view of sustainability as a strategic choice for local and global business, with modules from the Business School.

Management and Organisational Behaviour – Provides a focus on organisations and the relationship between human capital and natural capital, with modules from the Business School.

Natural Sciences – An overview of the physical science of environmental issues, providing a strong platform to inform business, with modules from the Schools of Earth and Environment, and Geography.

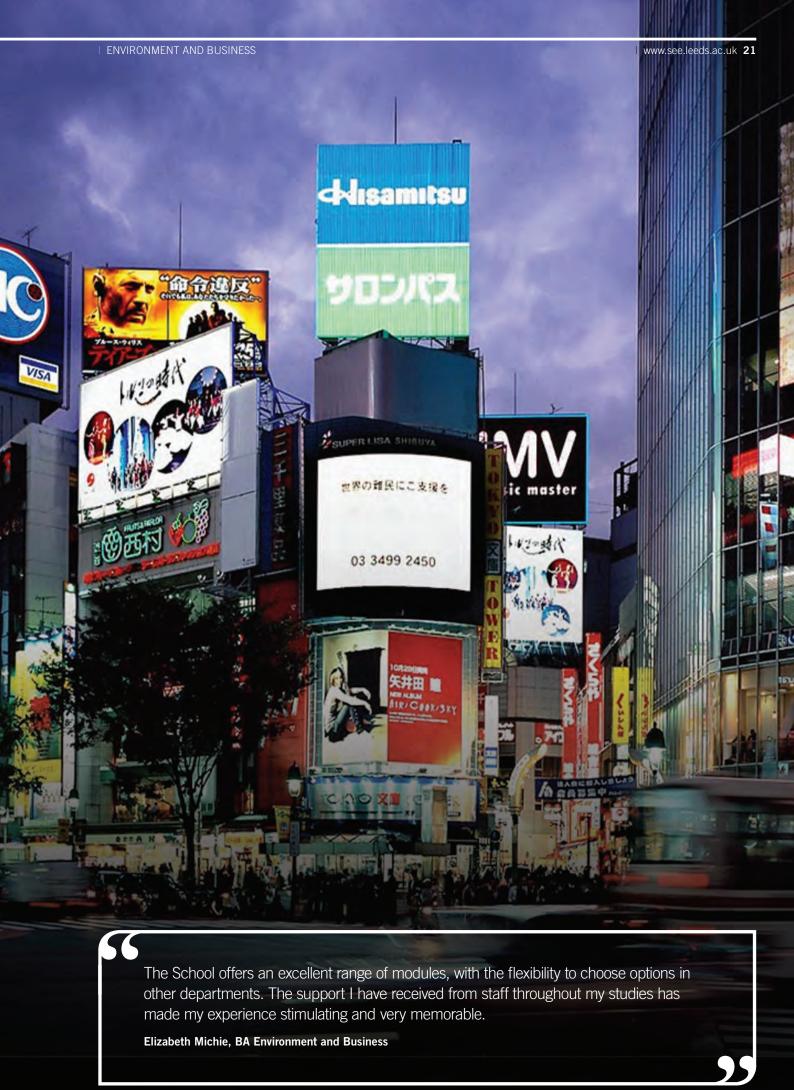
CAREERS

As an Environment and Business graduate you will be ideally placed to appreciate the fundamental advantages and challenges of a sustainability oriented approach. You will develop expertise in a unique combination of sustainability and business topics in order to deliver long-term solutions to environmental and social challenges.

Potential career options are available in business analysis, consultancy, management, and corporate social responsibility. You may also find work in a government or non-governmental agency, or in business in the UK or overseas.

For more information visit

www.see.leeds.ac.uk/admissions-and-study/ undergraduate-degrees



Environmental Science

BSc Environmental Science (3-year degree and 4-year study abroad degree) F851 BSc Environmental Science (4-year industrial degree) F647 MEnv Environmental Science (4-year Integrated Masters with a year abroad) F856

Study the processes controlling the complexity of the Earth's natural environment and its interactions with human activities. You will cover a broad range of topics, from biogeosciences and atmospheric science to ecological principles and environmental management.

The course provides you with the opportunity to make independent observations through fieldwork, and answer key environmental questions across a range of areas.

You may choose to take advantage of exciting study abroad opportunities for example at McMaster University in Ontario, or Monash University in Melbourne. Alternatively you may choose to spend a year industry - putting your environmental skills into action, earning some money and improving your employability.

Introductory modules across a broad range of topics covering the Earth's environmental system give you fundamental knowledge of a range of scientific approaches and perspectives relating to environmental issues. You explore substantive aspects of human environmental relations in the context of key environmental problems and debates, while developing practical competencies in environmental analysis techniques through field and laboratory work.

YEAR 2

Develop a deeper understanding of particular environmental problems from a range of interdisciplinary perspectives and learn to apply field and analytical skills in environmental monitoring. As you begin to understand and analyse the complex relations between human and environmental systems you learn to apply your knowledge to decision making. During this year you will choose three of the five specialist pathways.

FINAL YEAR

If you choose the BSc a significant proportion of your final year is spent completing your independent research project on a topic that reflects your study and career interests. You also continue to study modules appropriate to two of your three chosen pathways.

If you choose the MEnv Integrated Masters you will spend your third year studying at one of our partner universities overseas, then return to take a final year of Masters-level modules and independent research.

PATHWAYS

Choose from one of our five pathways allowing you to specialise in a particular area of study:-

Earth – Explore the Earth's lithosphere, geological and sedimentary processes, and their interactions with the climate system and natural resources, including the study of volcanoes, earthquakes, fossil records, and their relationships with environmental change.

Atmosphere – Ideal if you are interested in meteorology, climate and air pollution. Investigate weather forecasting, high impact weather, local air quality, atmospheric chemistry, and atmospheric interactions with the climate system and biosphere.

Water – Study global and regional scale processes in the oceans, rivers and ice sheets. Explore oceanography, river management, water quality, and interactions between oceans, ice and the climate system.

Biosphere – Investigate global and local scale ecosystems and interactions with the Earth system, terrestrial and marine ecosystems, ecology, conservation of natural resources, nutrient and carbon cycles, and palaeobiology.

Environmental management – Examine human influence on the environment and environmental impacts on society, global environmental change, energy and food security, and effective management of environmental problems on local and global scales.

CAREERS

The complexity of environmental problems creates a need for trained specialists. Once graduated, you would be suited to careers involving environmental monitoring, consultancy, remediation and protection.

You could also go on to jobs across the wider graduate employment market or into postgraduate study, where your skills in critical analysis, numeracy and problem solving are in high demand.

For more information visit www.see.leeds.ac.uk/ admissions-and-study/undergraduate-degrees



A highlight of the course was the Blencathra field trip, where I developed useful analytical skills that I will be able to use in the workplace. Plus, there is a high amount of research content in lectures, bringing you to the forefront of current understanding.

Thomas Lane, BSc Environmental Science (Industrial)

Meteorology and Climate Science

BSc Meteorology and Climate Science (3-year degree and 4-year study abroad degree) F790 BSc Meteorology and Climate Science (4-year industrial degree) F760 MEnv Meteorology and Climate Science (4-year Integrated Masters with a year abroad) F791

If you are interested in using your scientific knowledge to understand and predict the behaviour of the Earth's atmosphere, and to investigate atmospheric pollution and climate change, then this is the degree for you.

Traditional meteorology courses take a very theoretical approach: our course is unique in its emphasis on building your understanding of the processes in the atmosphere and putting that knowledge to practical use. You will enjoy plenty of practical experience in weather forecasting and undertake field work each year including an outstanding field class on Arran.

Leeds is one of very few universities in the UK offering a degree focused entirely on meteorology and climate science. This degree is accredited by the Royal Meteorological Society. We work closely with the Met Office through the Met Office Academic Partnership:

www.metoffice.gov.uk/research/partnership

You can choose to take advantage of study abroad opportunities in Meteorology and Climate Science, for example at the University of Illinois, or the University of Wisconsin in the USA. Alternatively you could gain practical experience through a year in industry – earning some money and improving your employability.

YEAR 1

Concentrate on the core skills in maths, physics and chemistry that you will need throughout your degree. Introductory courses in meteorology and weather forecasting and your study of the Earth's atmosphere offer you an overview of the subject. Practical work is important right from the start.

YEAR 2

Build on the skills and knowledge gained in your first year, studying important aspects of atmospheric dynamics and physics in more detail and developing key skills in statistics and computing. The residential field course is a challenging and enjoyable highlight of this year.

FINAL YEAR

If you choose the BSc your final year allows you to gain a truly in-depth knowledge of atmospheric science. The variety of modules on offer allows you to tailor your studies to reflect your particular interests. You will also carry out independent research.

If you choose the MEnv Integrated Masters, you will spend your third year overseas studying at a partner university and return to take a final year of Masters-level modules and independent research.

CAREERS

You could pursue a successful career in meteorology, climate science and air pollution as well as in industry, commerce and government services, where knowledge of the atmosphere is increasingly essential to policy and decision making.

Your understanding of climate change and meteorological issues is highly-valued by the Met Office and commercial weather forecasting companies, the armed forces, public organisations such as local authorities and the Environment Agency, and by commercial sectors such as insurance.

For more information visit

www.see.leeds.ac.uk/admissions-and-study/ undergraduate-degrees



Leeds gave me an amazing opportunity to spend my third year studying abroad in America. I had the most amazing time making friends for life, experiencing living in another country, and even academically I was given the chance to produce forecasts for actual clients and go tornado chasing!

Lucinda McGregor, MEnv Meteorology and Climate Science (Integrated Masters with a year abroad)

Sustainability and Environmental Management

BSc Sustainability and Environmental Management (3-year degree and 4-year study abroad degree) F7M0 BSc Sustainability and Environmental Management (4-year industrial degree) FD46 MEnv Sustainability and Environmental Management (4-year Integrated Masters with a year abroad) F750

Sustainability is at the core of current thinking about the environment and our place in it. We face increasing pressure because of our demands for natural resources and the waste that is generated by our modern lifestyle.

This course will enable you to define, understand and explore the complexities and challenges of sustainable development and natural resources management using case studies from around the world to develop your environmental management skills and knowledge.

Our degree options, give you the choice to spend a year abroad gaining an international appreciation of sustainability issues. Or the choice to spend a year in industry – gaining practical experience, earning some money and improving your employability.

Accredited by the Institute of Environmental Management and Assessment (IEMA), means on successful completion, you will qualify for Associate Membership of IEMA. This is a step which usually requires an additional exam after a period of workplace experience. The University of Leeds is the only Russell Group University to offer an undergraduate degree that is accredited by IEMA.

YEAR 1

Gain a theoretical and practical grounding in the social and economic aspects of sustainability, studying modules from across the environmental social sciences. You will also build your environmental science skills – all essential for pursuing a role in the environmental management sector.

Choose from specialist pathways in natural and social sciences that allow you to tailor your degree to your interests. Issues of environmental change, policy and economics, business and management will all be explored and you have the opportunities to develop your research skills.

FINAL YEAR

As a final year BSc student, you have opportunities to pursue areas of study that interest you through your selection of optional modules. These cover themes such as sustainability, conservation and climate change. You will also carry out independent research.

If you choose the MEnv Integrated Masters spend your third year studying at one of our partner universities such as the Australian National University, University of California in the USA and York University in Canada, returning to take a final year of Masters-level modules and independent research.

PATHWAYS

Choose from four pathways allowing you to specialise in an area of study and enhance your career prospects.

Business and sustainability – Examines the interaction between business and sustainability and equips you for a career in corporate social and environmental responsibility.

Sustainable infrastructure – Focuses on transport and energy and develops your knowledge and skills for a career in policy and planning departments.

Managing ecological resources – An interdisciplinary approach to ecology and biodiversity, preparing you for a career in environmental consultancy and policy.

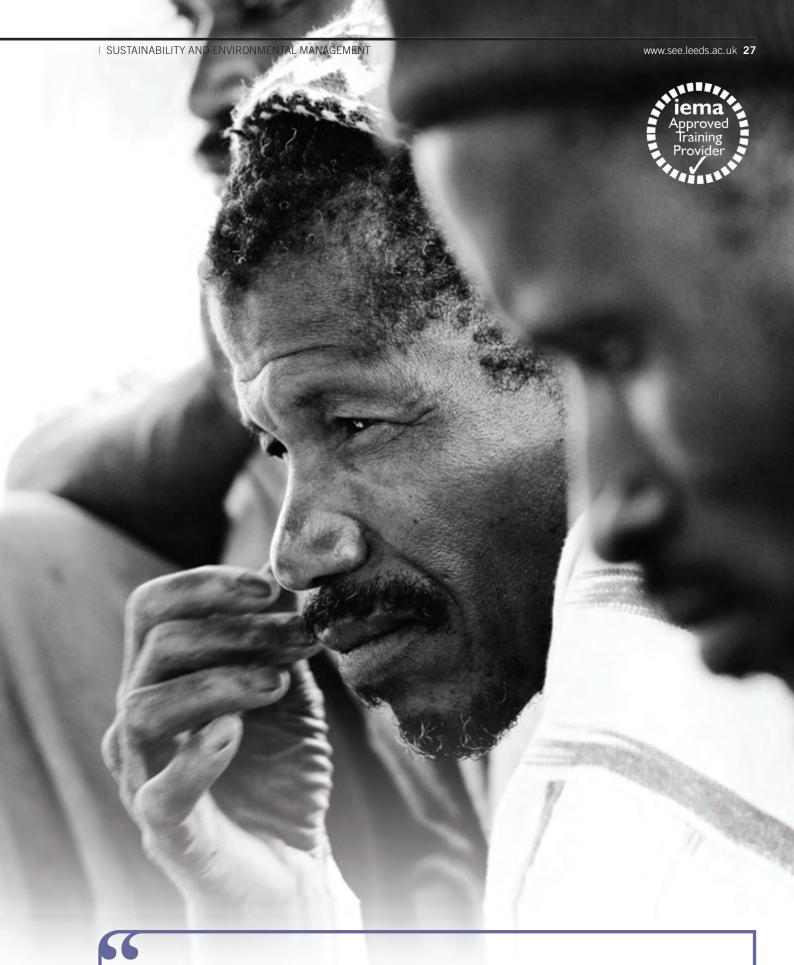
Environmental science and management – Gain in-depth knowledge of climate change, pollution and regulation, mixing social and natural science.

CAREERS

As a graduate you will be ideally placed to fill a growing number of positions which require people who understand both the nature of the environmental problem, and the nature of the management challenge to resolve it. This could mean working for a public sector organisation (local government, the NHS, a University) which has to meet obligations to green its activities, or a private sector company which is trying to ensure that it follows environmental rules. Some of our graduates work in the charity sector, in campaigning organisations, or delivering government.

For more information visit www.see.leeds.ac.uk/admissions-and-study/ undergraduate-degrees

Image: PhD student research, Mali



In my second year we went on a field trip to Amsterdam to conduct group research on sustainability challenges in the city. This was a unique opportunity to apply the wide skill set and knowledge base we had developed in class into a practical context, while getting to know classmates and lecturers.

Edward Snell, BSc Sustainability and Environmental Management

Geological Sciences

BSc Geological Sciences (3-year degree and 4-year study abroad degree) F600
BSc Geological Sciences (4-year industrial degree) F634
MGeol Geological Sciences (4-year Integrated Masters with a year abroad) F601

This broad-based degree emphasises the fundamental processes which underlie the development of the Earth's crust, the formation of rocks and the evolution of life on Earth.

See and experience new field locations and learn from international scientists by choosing to spend a year abroad at, for example, the University of California, Santa Barbara or the Victoria University of Wellington in New Zealand. Or choose to spend a year in industry – putting your geological skills into practice, earning some money and improving your employability.

YEAR 1

Gain a thorough introduction to Geological Sciences. There is a lot of practical work in the field or in our Earth Visualisation Laboratory using maps, microscopes, rocks and fossil specimens. The main field course is a week in South Wales where you work in teams to learn the basic skills of a field geologist. At the end of the year you put your geological mapping skills into practice in the north of Scotland.

YEAR 2

Develop your Earth science knowledge and skills further on your Easter field class in Ireland, working on sedimentary and metamorphic rocks. After exams, you carry out fieldwork for your final year independent project, which could involve geological field mapping in a small group.

The range of topics and mapping areas offered is linked to areas of staff expertise, to ensure that you are supported by an assigned academic staff supervisor. Typical field areas might include England, Scotland, Ireland, Bulgaria, and the Pyrenees.

FINAL YEAR

For BSc students, the main component of your final year is an independent research project using field data gathered at the end of the second year. The residential field class and the range of optional modules you can select will be tailored to your needs and may depend on which pathway you have chosen.

If you choose the MGeol Integrated Masters, study with a partner university overseas and return to take a final year of Masters-level modules and independent research.

PATHWAYS

Choose from one of four pathways to create a more specialised degree and acquire skills in particular areas of geology.

Geology – Expand on what you've learned in year one and study the complete range of geological processes that have shaped our planet and gain a broad education suitable for general employment or further study.

Petroleum – Respond to the particular needs of the oil and gas industries. Focus on the most relevant topics for the petroleum industry – structural geology, sedimentology, exploration geophysics and petroleum geoscience.

Minerals – Focus on aspects of geology relevant to ore formation, mineral exploration and resource development. It is an ideal route if you are considering a career in minerals exploration or mining geology.

Environment – Develop aspects of environmental geology. It is recommended if you're intending to pursue a career in environmental and engineering geology, or working for a geotechnical company.

CAREERS

You will be highly regarded by employers for your skills in teamwork, problem solving, IT and data handling and manipulation. While you will study the full range of geological science, our pathways enable you to focus your studies towards a favoured aspect of the discipline, acquiring specific geology skills and maximising your chances of employment in major geoscience sectors.

For more information visit

www.see.leeds.ac.uk/admissions-and-study/ undergraduate-degrees GEOLOGICAL SCIENCES www.see.leeds.ac.uk 29



accredited degree programmes



I've studied a huge range of geology through a number of field trips to different of locations. This range is also reflected in the variety of Geology modules and Earth science specialisms you can choose from. I spent my year in industry working for a structural geology consultancy, where I applied what I had learnt and developed new skills, both technical and non-technical. All in all, it's been an engaging, exciting and brilliant four years!

Tim Cullen, BSc Geological Sciences (Industrial)

Geophysical Sciences

BSc Geophysical Sciences (3-year degree and 4-year study abroad degree) F640 BSc Geophysical Sciences (4-year industrial degree) F646 MGeophys Geophysical Sciences (4-year Integrated Masters with a year abroad) F641

Study the Earth through the application of physical principles and tackle a wide range of subjects, often closely linked to geological data.

Geophysicists work in the engineering and environmental sectors, explore for hydrocarbons and mineral deposits and monitor natural hazards. They also investigate the interior of the Earth and other planets, measure the movements of the Earth's plates and assess the impact of human activities on the environment.

You need maths and physics at A-level or equivalent to qualify for a geophysics degree, and you will continue to use these skills throughout your studies. Graduates who can demonstrate the required high level of numeracy are in demand by many professions.

If you choose to spend a year abroad, for example at the Colorado School of Mines in the USA or the Victoria University of Wellington in New Zealand, you will continue to learn from internationally renowned geophysicists. Alternatively, you may spend a year in industry, applying geophysical skills, earning some money and improving your employability.

Cover the full range of Geophysical Sciences, developing a solid knowledge of geology, physics, geophysics, mathematics and computer programming including modules from the School of Physics.

On the one-week field class in South Wales at Easter, you will work in teams to learn the basic skills of a field geoscientist. After Year 1, you will choose optional modules that give a particular focus to your studies and take you in the direction of either physics or geosciences.

YEAR 2

Start this year making geophysical observations during a field course in the Yorkshire Dales. Compulsory modules train you in the key geophysics techniques used in resource exploration and the study of tectonic plates. You will also study advanced mathematical and computer programming needed to understand and process geophysical data. Optional modules allow you to specialise in topics from exploration geophysics, natural hazards, or physics.

At the end of the year spend two weeks collecting geophysical data on an international field trip, which has been held on Lanzarote in recent years.

FINAL YEAR

If you choose the BSc, you will study a number of core and optional geophysics modules. You will also submit your independent geophysical research project which can be based either on fieldwork or on research under the supervision of a member of staff.

If you choose the MGeophys Integrated Masters, spend your third year overseas with one of our partner universities and return to take a final year of Masters-level modules and independent research.

CAREERS

You can pursue a career in environmental and geohazard assessment and remediation, and in oil and mineral exploration where your skills are in demand. You will also be highly valued in research, financial and governmental environments, and in higher education institutions.

You could go on to a successful career in the hydrocarbons industry or with government bodies, or take a vocational MSc which further enhances employability.

You may also progress to a PhD as the first step towards a career in academic research.

For more information visit

www.see.leeds.ac.uk/admissions-and-study/ undergraduate-degrees

GEOPHYSICAL SCIENCES www.see.leeds.ac.uk 31



accredited degree programmes



I have learnt a variety of skills including computer programming and understanding geophysical concepts. The staff are approachable and supportive, especially during field trips where the learning is more practical.

Jonathan Marsh, BSc Geophysical Sciences (Industrial)

Your career

A degree from the School of Earth and Environment prepares you for a wide range of career roles in your chosen field. Graduates of this School are always in demand among companies that value teamwork skills, independence, numeracy and scientific literacy. The field and laboratory work components of our degrees help you gain practical and observational skills, and develop your ability to analyse and interpret data. You will also hone your independent research and investigative skills in your final year.

We don't overlook the transferable skills that will take you a long way in your career – numerical analysis, verbal and written communication, project management and teamwork. The continuous interchange of ideas ensures that you will be qualified to take up career opportunities or additional training through our MSc and PhD degrees.

CAREERS

Leeds has a skilled and highly effective Careers Centre whose excellent reputation brings employers from all sectors of business and industry to Leeds recruitment fairs and other events. The School also has its own dedicated Employability Officer and runs various initiatives such as a Careers Module, and Alumni networking events and talks.

For more information visit: www.see.leeds.ac.uk/ admissions-and-study/employability

LEEDS for LIFE

Leeds for Life is an innovative personal development scheme for University of Leeds students that is not widely available at

It is designed to help you get the most out of university life from day one, and to prepare you for your future. The scheme helps you identify opportunities for developing your skills, and you create an online 'living CV' that will help you to evaluate your skills and knowledge and to articulate the benefits of your experience at Leeds.



I am working for BP as part of their graduate scheme. This has been an exciting role where I have applied my technical knowledge learnt at Leeds. I have also completed offshore survival training which involved being submerged in a helicopter and learning about fire prevention on oil rigs. I look forward to a career in the oil industry and the opportunities that it brings.

Matt Le Good, Reservoir Management Geophysicist, MGeophys Geophysical Sciences with a year abroad



As soon as I stepped off the train I knew that Leeds was the right place to study – the course content was perfect and taught in a context that was relevant to industry - something other universities didn't seem to have. I don't think I would be where I am today if it wasn't for my time at Leeds, the skills I learnt there really set me up for the work I do today.

David Longden, BA Environmental Management (now BSc Sustainability and Environmental Management)





Life at Leeds

Leeds is one of the most popular university destinations in the UK. With a large student population, it's a thriving, lively place to live and learn. Students love Leeds - come here and it won't be long before you're calling Leeds your home.

CAMPUS LIFE

Situated close to the heart of the city, the University of Leeds is a find our accommodation, teaching facilities, Students' Union and

You will have access to a range of excellent university facilities, including one of the best academic libraries in the UK with over

NEW LAIDLAW LIBRARY

In addition to the Brotherton and Edward Boyle libraries, the Laidlaw library has been designed for undergraduate students. It provides 900 study spaces dedicated IT zones with the latest technology, including bookable rooms for group work and interactive presentation equipment.

AN AWARD-WINNING STUDENTS' UNION

it's also the most active. With over 250 clubs and societies and 30,000 members the Union is a vibrant organisation providing a hub of activity where you can meet, make friends, get advice and

STATE-OF-THE-ART SPORTS FACILITIES

are plenty of fantastic opportunities and sports facilities to experience. The Edge is our £12m flagship indoor facility. The gym and pool provides state-of-the-art fitness, sport and well-being opportunities, all located on campus. If you live in University halls of residence you will automatically receive an Edge Club membership.

GUARANTEED ACCOMMODATION

place in University accommodation for your first year.

For more information and to check the deadlines visit: www.accommodation.leeds.ac.uk

Please note: Restrictions apply relating to deadlines, residences and academic offer status.

LEEDS - THE CITY

Leeds offers the best of both worlds, combining the buzz of a cosmopolitan city with quick and easy access to the surrounding beautiful countryside. As the 'capital' of the Yorkshire and Humberside region, Leeds is a major centre for shopping, arts, sport, leisure, entertainment and nightlife.

A CULTURAL CITY

Leeds has a thriving arts and cultural scene offering the best in theatre, film, dance, comedy and visual arts. The city is host to Opera North and the Annual international film festival, with venues such as the West Yorkshire Playhouse, Grand Theatre and First Direct Arena. There are also world-class exhibitions Museum, and concerts at the Town Hall.

A SPORTING CITY

The city has a proud sporting tradition and is home to famous teams such as the Brownlee Brothers, Yorkshire County Cricket Club, the Leeds Rhinos and Carnegie rugby clubs. The region also hosted the Tour de France in 2014 and will be hosting the World Triathlon this year (2016).

AN ACCESSIBLE CITY

UK's major cities, including London which is just two hours away by train. We are ideally located to reach Scotland, the Lake District, York, Newcastle and beyond for weekend getaways. Leeds Bradford airport is just a few miles from the city centre and provides international flights to major cities and

For more information visit www.visitleeds.co.uk

"As an Earth and Environment student you will be surrounded by the reality of what you're studying. Yorkshire has many unique natural landmarks that are also sites of scientific interest including the Yorkshire Dales, Flamborough Head, Three Peaks, Malham Cove and Brimham Rocks."

Professor Simon Bottrell. Head of School





How to apply

All applications should be made online through the Universities and Colleges Admissions Service (UCAS) www.ucas.com by 15th January 2017

INFORMATION FOR APPLICANTS

OPEN DAYS

Attend Open Days in June, September and October each year. These events are an ideal opportunity for you to find out more about our courses, visit the University and our School. If you're a post-application Open Day which includes a short interview with a member of teaching staff. We encourage you to visit the School to find out more about our degrees first-hand from staff and students who are best placed to answer your questions.

FEES AND STUDENT SUPPORT

www.leeds.ac.uk/yourfinances

SCHOLARSHIPS AND PRIZES

Find out about our variety of University scholarships that have a combination of income thresholds and academic achievement criteria.

For more information visit www.leeds.ac.uk/scholarships

The School offers prizes and awards each year for excellent overall academic performance and for those of you who show a marked improvement year-on-year.

ACCOMMODATION

application deadline, we guarantee you a place in single-room and self-catered residences – many of which offer en-suite rooms.

For more information and to check the deadlines visit www.accommodation.leeds.ac.uk

INTERNATIONAL STUDENTS

If you are looking to move to the UK for your studies, the School welcomes students from a wide variety of countries around the globe. You can enhance your career prospects through our strong vocational pathways, such as petroleum, business community of cultures studying and working within a premier Russell Group University. Check your eligibility for special scholarships by referring to 'Scholarships and Prizes'

For more information visit www.leeds.ac.uk/international

MATURE STUDENTS

consideration, taking account of existing academic qualifications, relevant work experience and personal motivation for study.

For further advice and guidance on making an application contact the Undergraduate Admissions Office admissions@see.leeds.ac.uk

ALTERNATIVE ADMISSIONS SCHEME

You can apply through Access to Leeds (A2L) if you haven't had an equal opportunity to demonstrate your talents and potential through academic grades alone. It could also benefit you if your personal and educational circumstances may have affected your ability to succeed in pre-university examinations.

For more details of the Access to Leeds programme and to check the deadlines and eligibility visit

www.leeds.ac.uk/A2L

Entry Requirements

DEGREE	UCAS CODE	A-LEVELS	ACCESS TO LEEDS	INTERNATIONAL BACCALAUREATE	SUBJECT REQUIREMENTS
Environment and Business BA	FN8C	ABB	BBC	34 points inc. 16 at higher level	TWO from Biology, Business Studies, English, Ethics, Geography, History, Law, Philosophy, Psychology, Politics and Sociology. Other subjects may be considered*. Offer excludes General Studies.
Environment and Business BA (Industrial)	FN51				
Environment and Business MEnv	FN02	A*AA	AAB	35 points inc. 19 at higher level	
Environmental Science BSc	F851	ABB	BBC	34 points inc. 16 at higher level	TWO from Biology, Chemistry, Geology, Geography, Environmental Studies, Mathematics and Physics. ONE of which must be Mathematics or a science subject. Offers exclude General Studies.
Environmental Science BSc (Industrial)	F647				
Environmental Science MEnv (International)	F856	A*AA	AAB	35 points inc. 19 at higher level	
Geological Sciences BSc	F600	AAB	BBB	35 points inc. 17 at higher level	TWO from Biology, Chemistry, Geology, Geography OR Environmental Studies (not both), Mathematics, and Physics. Offers exclude General Studies.
Geological Sciences BSc (Industrial)	F634				
Geological Sciences MGeol (International)	F601	A*AA	AAB	35 points inc. 19 at higher level	
Geophysical Sciences BSc	F640	AAB	AAB BBB	35 points inc. 17 at higher level	Including Mathematics and Physics. Offers exclude General Studies.
Geophysical Sciences BSc (Industrial)	F646				
Geophysical Sciences MGeophys (International)	F641	A*AA	AAB	35 points inc. 19 at higher level	
Meteorology and Climate Science BSc	F790	ABB	BBC including a B in Mathematics	34 points inc. 16 at higher level	Including Mathematics and EITHER Physics OR Chemistry.
Meteorology and Climate Science BSc (Industrial)	F760				Offers exclude General Studies.
Meteorology and Climate Science MEnv (International)	F791	A*AA	AAB	35 points inc. 19 at higher level	
Sustainability and Environmental Management BSc	F7MO	ABB	BBC	34 points inc. 16 at higher level	TWO from Biology, Chemistry, Economics, English, Environmental studies, Geography, Geology, History, Law, Mathematics, Physics, Politics and Sociology. Other subjects may be considered*.
Sustainability and Environmental Management BSc (Industrial)	FD46				
Sustainability and Environmental Management MEnv (International)	F750	A*AA	AAB	35 points inc. 19 at higher level	





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