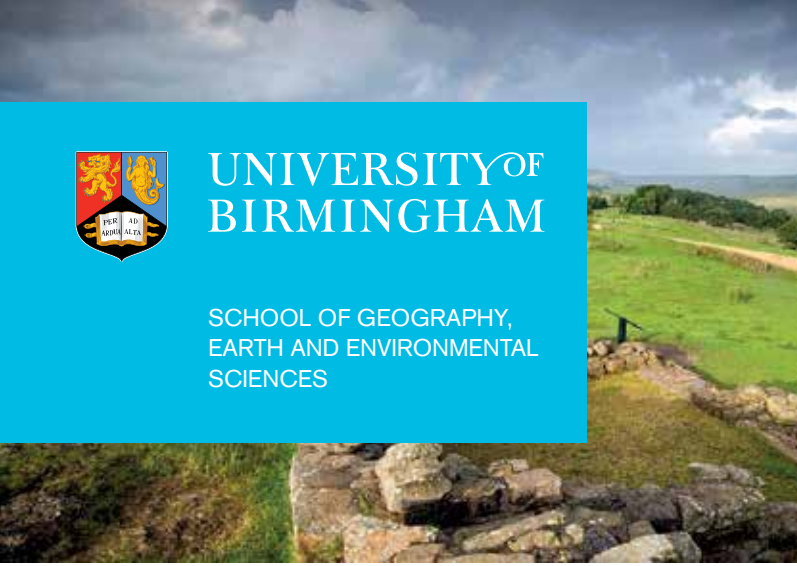




UNIVERSITY OF
BIRMINGHAM

SCHOOL OF GEOGRAPHY,
EARTH AND ENVIRONMENTAL
SCIENCES



**GEOGRAPHY, EARTH SCIENCES,
ENVIRONMENTAL SCIENCE AND PLANNING**

Introduction

Be part of a vibrant community of students and staff making real-world impact by addressing past, current and future challenges in the fields of geography, earth sciences, environmental science and urban planning.

The research-led teaching on our flexible degree courses ensures an inspirational and enquiry-based learning environment in the classroom, lab and field. You will graduate as a highly employable, independent global citizen with a broad range of transferable skills.

You will study on one of the most attractive and heritage-rich campuses in the country only a few minutes from the centre of Birmingham, with its wealth of culture, nightlife, shops and other attractions.



Image credit: Arito Sakaguchi & IODP/TAMU

THE LEARNING ENVIRONMENT

Our cutting-edge teaching programme is built on a foundation of over a hundred years of research and teaching excellence. You will shape your own intellectual development with us through a range of study methods. The learning experience extends way outside of the lecture theatre. Fieldwork, both in the UK and overseas, is an essential element of our degree programmes. As well as tutorials and practical classes you will have access to extensive educational facilities across the School and University including our brand new £60 million library resources, state-of-the-art laboratories and IT facilities.

We are home to the Lapworth Museum of Geology, brimming with more than 250,000 specimens, some over 500 million years old! The Museum was a finalist for Art Fund Museum of the Year 2017, the UK's largest and most prestigious museum prize and arts award.

FLEXIBLE DEGREES

Our portfolio of modules across our degree programmes is incredibly varied and intellectually stimulating – which is why we give you the opportunity to choose what you want to study. In fact, our degrees are among the most flexible anywhere. For instance, if you are interested in both human and physical geography, you can pick and choose your modules to focus on the human side, physical side or the interactions between the two.

PIONEERING GLOBAL RESEARCH

The world-leading research we do feeds directly into our undergraduate programmes, which means you will be learning from academics who are experts in their fields. For example, Dr James Bendle, who has uncovered direct evidence that palm trees grew in Antarctica about 50 million years ago, leads a module in palaeoclimates, while Professor Dominique Moran has defined a new field enabling you to explore the geographies of incarceration. Our research is truly global taking us to all corners of the Earth from remote Antarctica to sprawling metropolises. We are home to the Birmingham Institute of Forest Research (BIFoR), a pioneering facility investigating the long-term impact of climate and environmental change on woodlands.



OPENING A HOST OF DOORS

Our graduates are very successfully working in a range of industries both at home and overseas; indeed our employability rate is up to 96 per cent. Recent graduates include an exploration geologist in Western Australia, a fish biologist in the USA, an Emirates-based chartered surveyor, a professional officer at the Royal Geographical Society and an RAF meteorologist. Many of our degree courses offer you the option to study or even work abroad for a year, or for a shorter duration. So whether it's a professional placement in the West Midlands, a week on a field trip in Malta or a year in New Zealand or Australia, you have a wealth of opportunities to gain invaluable experience as part of your Birmingham degree.

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For more information please visit

www.birmingham.ac.uk/gees

Where will your degree take you?

Preparation for your future career should be one of the key things you think about when you start university.

By choosing to study with us you will embark on an enriching journey building a strong foundation for your professional future. Your studies will take you many places; all the time giving you invaluable real-world experience.

We recognise the importance of preparation for the world of work during your time here and encourage you to enhance your degree with internships, volunteering projects or entrepreneurial endeavours. When you graduate from our School you will be highly aware of the globalising economy, sensitive to the variety of the world's cultures, and have an understanding of the physical processes and critical issues that impact upon the environment. You will have a perspective that encompasses the global, regional and local, and will be highly regarded by employers.



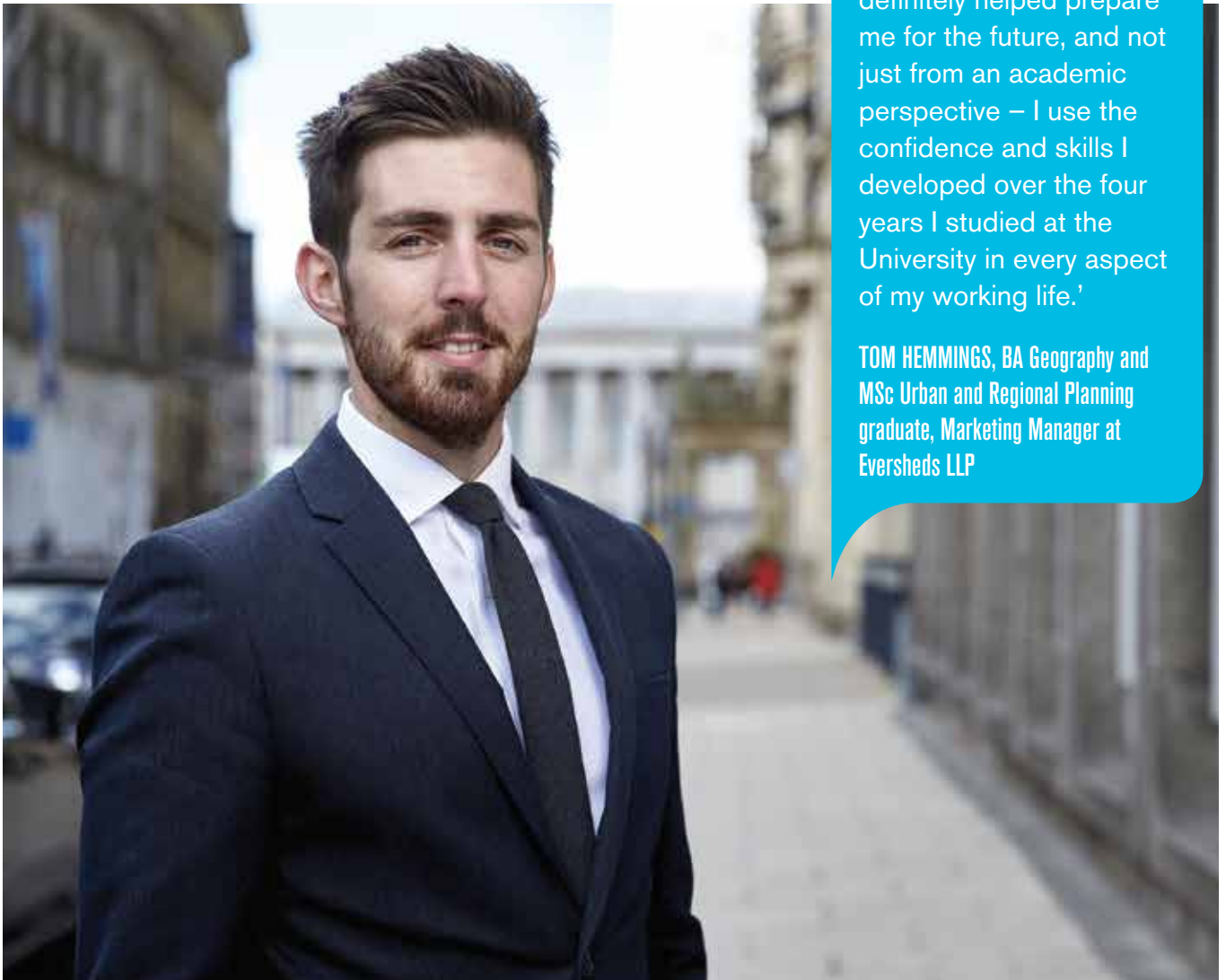
Internships and work experience

There are numerous opportunities to take advantage of an extensive range of internships and work experience placements that will enhance your professional and personal skills. These opportunities cover a wide range of professions and aspirations, from travelling abroad, to assisting on conservation projects and gaining crucial experience with UK organisations. Career development is integrated into the tutorial programme, and the Careers Network offers specific programmes to develop your CV and make you stand out from the crowd.



- We have an excellent careers record with up to **96 per cent** of our graduates employed in a range of industries within six months
- Many of our degrees are accredited highlighting our academic excellence and their professional relevance and applicability to the workplace
- Fieldwork plays a central role in developing your skills, offering practical experience in a range of settings and the opportunity to explore our extraordinary and multifaceted world





'My time at Birmingham definitely helped prepare me for the future, and not just from an academic perspective – I use the confidence and skills I developed over the four years I studied at the University in every aspect of my working life.'

TOM HEMMINGS, BA Geography and MSc Urban and Regional Planning graduate, Marketing Manager at Eversheds LLP



ESTELLE PATRICK
BSc Geology, Graduate Geologist
with BG Group

I currently work for BG Group as an Exploration Geologist in the search for oil and gas. I joined their International Graduate Development Programme, which involves several rotations across different exploration projects located in China, Norway and Tanzania, numerous training and field courses at different global locations and an international placement in Houston, USA. These projects built skills in basin analysis, geochemistry, basin modelling and assessing the reserves potential of future fields. I currently work for the Brazil Exploration Team in which I have a geochemical focus in regional assessments.

My degree at Birmingham provided a foundation of geoscience skills from the first year. Modules studied in subsequent years introduced industry-relevant topics such as engineering geology, hydrogeology and petroleum geoscience and were structured in a way which gave a flavour of potential careers in a wide range of industries. As a student I structured modules in the third and fourth year and chose research project topics that geared me towards a career in the petroleum industry. I believe the structure of the modules and the topics available gave me a sound academic background to begin my industrial career. As a whole, attending the University of Birmingham helped me as it provided the skills necessary to support success in my future career.



'I entered the BP Ultimate Field Trip to do something different with geography and gain experience for my CV. My geography knowledge was applied to a chemical engineering solution. The problem we faced was to recycle water, which is extensively used in oil and gas extraction. Our solution was applied to the shale gas industry and the fracking process. We heated waste shale water to a supercritical temperature under pressure to destroy toxic compounds and remove others. My passion for energy means that ideally I would like to work for an international petroleum company in the future.'

**RICHARD HINDS, BSc Geography,
BP Ultimate Field Trip finalist**



CAREERS

TAILORED CAREERS SUPPORT FROM CAREERS NETWORK

We provide a wealth of opportunities to develop your career. From your first day at Birmingham to after you graduate, Careers Network is here to help you identify and achieve your individual career aspirations through its wide range of services.

Careers Network has a strong professional relationship with colleagues in the School and delivers a range of activities including career planning workshops and employer and alumni sessions focusing on key industry sectors of interest.

The dedicated careers team brings you information, advice and guidance tailored to your specific needs. Careers advisers offer one-to-one advice appointments where you can discuss your career plans and explore your options.

Our multi-award-winning work experience team has dedicated internship officers to help find the right work experience for you. Make the most of these opportunities and apply for our Work Experience Bursary Scheme, the Global Challenge Internship Programme or one of our successful mentoring schemes.

Our application advisers deliver a range of workshops and individual support to help you create the perfect CV and covering letter, improve your interview skills and use social media such as LinkedIn more effectively.

You can access tailored careers information at our 'Careers Hubs' or via our dedicated careers virtual learning resource.

- An Environmental Careers Showcase provides students with insights into environmental, ecological and sustainability careers, delivering presentations and networking with a wide range of employers.
- The Resources of the Earth module includes weekly careers talks for Earth Sciences students. Professionals from relevant sectors highlight routes into their industry and 'top tips' based upon their experiences.
- There are also professional placements within the Engineering Geology and Hydrogeology module, and opportunities for an industry-linked research project.

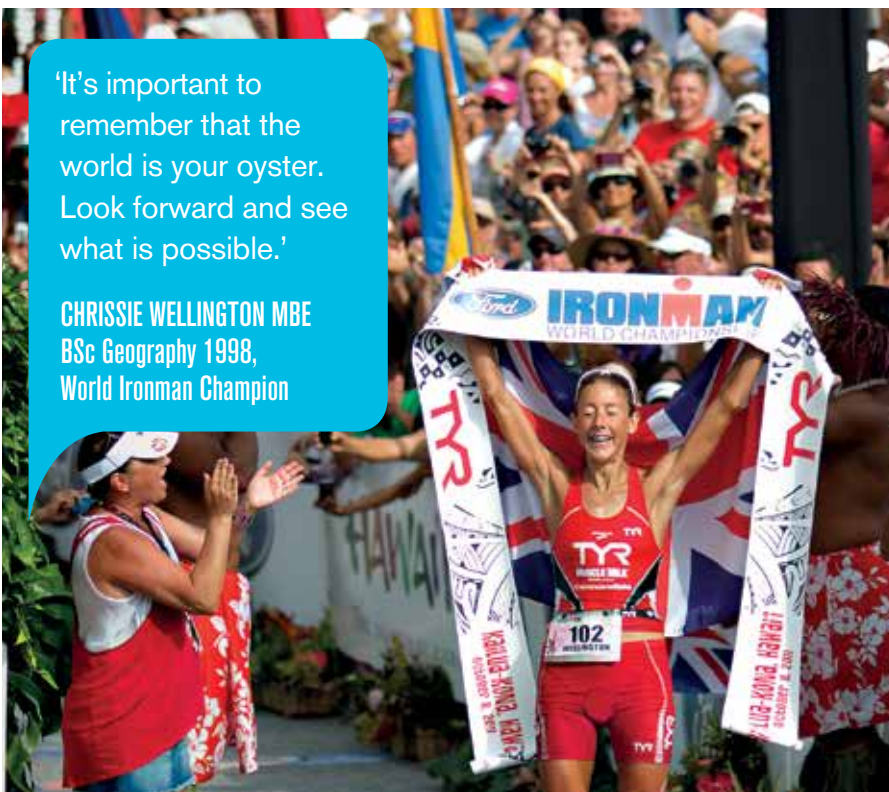
Transferable skills

Our graduates have exciting and varied career paths. Our degrees are designed with employers in mind enabling you to develop a unique blend of general, specialist and, crucially, transferable skills. Whether your future lies in environmental consultancy, urban planning, geoenvironment, finance or research, our degree programmes are designed to nurture your talent and equip you with an optimal skills set. From data analysis and problem solving to communication and team-working, these transferable skills are highly valued by employers and will enhance your employability in the competitive job market.



RESEARCH

Some students develop an appetite for research and follow research careers after graduating. All students undertake an individual research project in their final year (three- and four-year programmes). Up to half of the final year is dedicated to the project work, which provides excellent training in research techniques. Some students build on this to follow research careers after graduating, while others take a one-year Masters course, enabling them to specialise further in a field that interests them.



'It's important to remember that the world is your oyster. Look forward and see what is possible.'

CHRISSIE WELLINGTON MBE
BSc Geography 1998,
World Ironman Champion

Our areas of study

There is a common thread running through our diverse and flexible degree programmes: to gain a deeper understanding of the world around us – from the earth beneath our feet and the climatic forces shaping it, to its divergent communities – so that we can better manage it, sustain it and plan for its future.



GEOGRAPHY

Geography is at the heart of everything we do. It's about the shape of the world and our place within it, and it's about tackling issues of critical importance: environmental, social, economic and ecological. Here at Birmingham you can study the full breadth of the subject – from migration and urban and social shifts to natural hazards and global environmental change. Because Geography appeals to students with wide-ranging interests, our single honours course can be taken as a BA or BSc degree. All students enjoy the same wide choice of course options and fieldwork opportunities. Our groundbreaking research infuses our teaching, helping you to understand, explain and solve real-world problems, and equips you with the skills to make a real contribution to global issues.

EARTH SCIENCES

We call it Earth Sciences (or Geology), but today with evidence for possible past life on Mars, volcanism on Venus and other worlds, the subject is expanding in new and exciting directions. In fact, there has never been a more fascinating and momentous time to study Earth Sciences. It is one of the most varied subjects, incorporating aspects of biology, geography, environmental science, computing, physics and chemistry, to name but a few. Earth scientists study all that our planet has to offer – from rocks and fossils to volcanoes and earthquakes. Some travel to the ends of the Earth to carry out research; others recreate aspects of the world in a lab. But it's all pretty dramatic stuff – and has important ramifications for the future of our planet. An Earth Sciences degree also sets you up for a wide range of potentially exciting careers, from prospecting for oil or minerals to mitigating hazards.

ENVIRONMENTAL SCIENCE

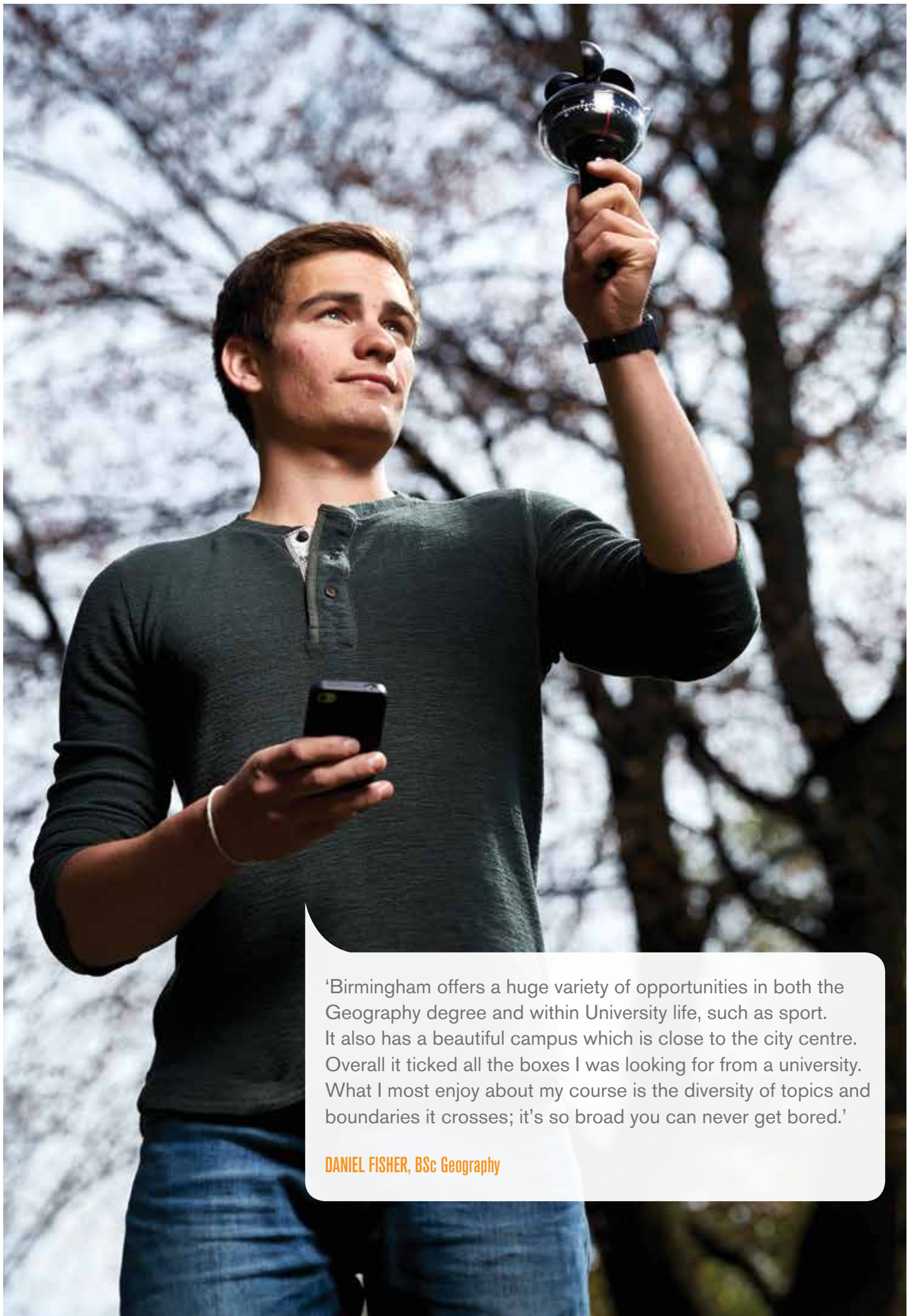
With the world facing more grand challenges, such as climate change, pollution and habitat destruction, than ever before, the study of environmental science has never been more important. Our programmes, built around our impressive research record, will allow you to develop an in-depth understanding of some of Earth's most complex environmental problems. There is a growing need for graduates with a strong scientific background and transferable skills who can apply their knowledge to environmental management and protection globally. A degree in Environmental Science from Birmingham won't just lead to a job – it will take you to career in which you can make a real difference to global environmental challenges.



URBAN AND REGIONAL PLANNING

If you are interested in urban issues – particularly why cities develop and change – a degree in Planning will be right up your street. And where better to study important issues such as housing, transport, urban planning, property development, sustainability, conservation and business than in a city with a rich industrial heritage that has undergone rapid and dramatic transformation over the past two decades – and remains a work-in-progress? Your Urban and Regional Planning degree will open lucrative doors in both the public and private sectors, from local authority planning departments to a range of planning and related built environment consultancies.





'Birmingham offers a huge variety of opportunities in both the Geography degree and within University life, such as sport. It also has a beautiful campus which is close to the city centre. Overall it ticked all the boxes I was looking for from a university. What I most enjoy about my course is the diversity of topics and boundaries it crosses; it's so broad you can never get bored.'

DANIEL FISHER, BSc Geography

Geography

One reason we are among the largest and most popular geography schools in the country is that we treat you as a geographer. This means we give you options to study both 'physical' and 'human' geography. We understand you may have a mixture of interests, from social to scientific, and we provide the opportunity for you to study them all.

That is why our programmes are so flexible, with all module options available to both BA and BSc students. In a rapidly changing world, not only are many of the challenges we face geographical – climate change, migration, globalisation – but they are also interconnected. It's because our natural and social environments overlap that we take a multidisciplinary approach.

In Year 1, you will study issues crucial to the shape of the world and our place within it, such as natural hazards, floods, global environmental change, urban and social change, and cultural landscapes. Along with the urban laboratory of Birmingham on our doorstep, allowing us to 'map the Midlands', there is a residential field trip to Rotterdam for the entire Year 1 cohort.

Year 2 will provide you with deeper subject knowledge in areas of your choice – from neighbourhood planning and hydroclimatology to ecological systems and cultural geography – and research methods training.

Year 3 is when you turn your interests into specialisms. These could be anything from climates of the past, and war and peace in the Middle East to cultural geographies of development, and conservation practice.

'Geography is a really employable subject. There are so many different industries you can go into upon graduation. Really make the most of Geography as a degree; there's so much flexibility, so much help within the School and you can pursue exactly what you are interested in.'

LOUISE CASHMORE, BA Geography

We have a strong international focus. As well as learning about the world from global scholars, you get to see the world. There are field trips to Europe and you also have the option to spend a year overseas at one of our partner institutions (Geography with a Year Abroad).

Although we're a large school, we are close-knit with a very personal touch. There are small tutorial groups and you'll have the same personal tutor throughout your time here.

Our degree programmes will equip you with the transferable skills essential for future employment. Geography graduates are skilled in working with digital technologies, statistics, mapping packages, GIS and mobile media. Our careers record speaks for itself with over 96 per cent of our graduates in employment after six months, in many cases these are jobs that are addressing global issues – jobs that really matter.



SIAN FOX
BA Geography, now a Team Leader
(Smarter Choices for Business and
Employers) at Centro

'I currently work for Centro, the West Midlands Passenger Transport Executive, and we are responsible for the delivery of public transport across the region. My team and I work with businesses to encourage their employees to travel to work more sustainably.'

'My BA Geography degree was a great programme to study as it helped give me a range of transferable skills which I could take into the workplace. The best aspect of the degree for me was the third-year placement module, which offered the opportunity to work in an organisation for two days a week over three months. I was selected to go to Ashram Housing Association and this was an excellent opportunity to develop the skills I was learning at University and meet new people. This placement was invaluable when finding a job after graduation as it gave me a great example to discuss at interviews.'

*Employability data source:
2016/17 Destination of Leavers from
Higher Education (DLHE) survey

Geography

A DIVERSE AND FLEXIBLE RANGE OF MODULES

Why are trains delayed by leaves on the line? How do jail spaces affect whether prisoners go on to re-offend? Is there a science of tree-hugging? How can cities be smarter *and* fairer? These very different questions give you an idea of the range and diversity of our programmes.

Our taught programmes, with a diverse range of modules to choose from, are among the most flexible anywhere, but there are several

themes that run through all of them, including cultural, social, political and economic change, urban planning and design, climate, water, geomorphology, ecology and human-environment interactions. You will have the chance to be taught by international experts in fields including geopolitics, big data, the creative industries, environmental justice, global city planning and development, environmental nanoscience, urban ecology and climate, hydrology, biodiversity, as well as past and future climate change (to name a few). See our School webpages for the full breadth of expertise across our 80 members of academic staff.



A DIVERSE
RANGE OF
MODULES

EXAMPLE MODULES

Environmental justice

From deforestation and mining to illegal fishing and the use of toxic pesticides, activities that affect the environment also affect communities – some more than others. This fascinating module explores how environmental problems can lead to social injustice. You will be introduced to notions of social justice, which you will then apply to various case studies from the UK and other parts of the world in order to understand and analyse the impact of pollution, climate change and other environmental factors on sectors of the population. You will also study how and why people might experience the environment differently, how their ability to derive benefits might not be equal, and what needs to be done to address existing inequalities.

Weather, climate and society

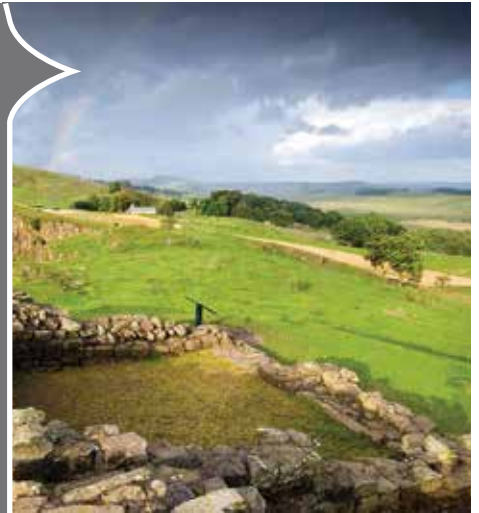
Weather is always a hot topic, and through this module you will explore the relationship between weather, climate and society. You will learn basic aspects of mid-latitude weather (including different aspects of observations, analysis and forecasts), climate (such as natural variability and anthropogenic climate change) and the way society plans for and reacts to extreme weather events and climatic changes like ash clouds and rising sea levels. You will also look at the economic and ecological impacts of weather and climate on society, such as the potential of wind and solar power and the cost/benefit of the use of weather information by industry.

KATIE HICKLING**Geography with an International Year, Northumberland National Park environmental land management placement**

'I spent a week with the National Park Authority in Northumberland working with the ranger team to maintain the park. This involved carrying out practical tasks to help protect the landscape, such as footpath relaying and tree felling. One day was spent undergoing lone working training with the mountain rescue to understand the dangers involved in this type of work. I also made several visits to Walltown Crag, a disused quarry that is now open to visitors, and wrote a management plan assessing how the site can be improved to become more appealing.


'Alongside the practical maintenance of the land, my work was also to make sure that park visitors were satisfied. This meant daily patrols with the rangers around the main visitor sites to ensure that there were no issues. I also helped plan events for National Parks Week that would encourage more people, particularly young people, to visit. The second block of my placement in July then involved stewarding and assisting in the running of these events.

'The most important skills I developed on placement were teamwork and leadership in a professional workplace setting. By working as part of a small team on practical tasks and also as part of the larger ranger team, I learnt the importance of delegating tasks to the people with the most appropriate experience for the task, allowing the team to work most effectively.'



'My favourite thing is the diversity and flexibility of the course. No other subject offers you a lecture in the morning about glaciers and a seminar in the afternoon on prison architecture! You can choose from a huge range of modules meaning that you only study what interests you.'

JEMIMA ASHDOWN,
BA Geography

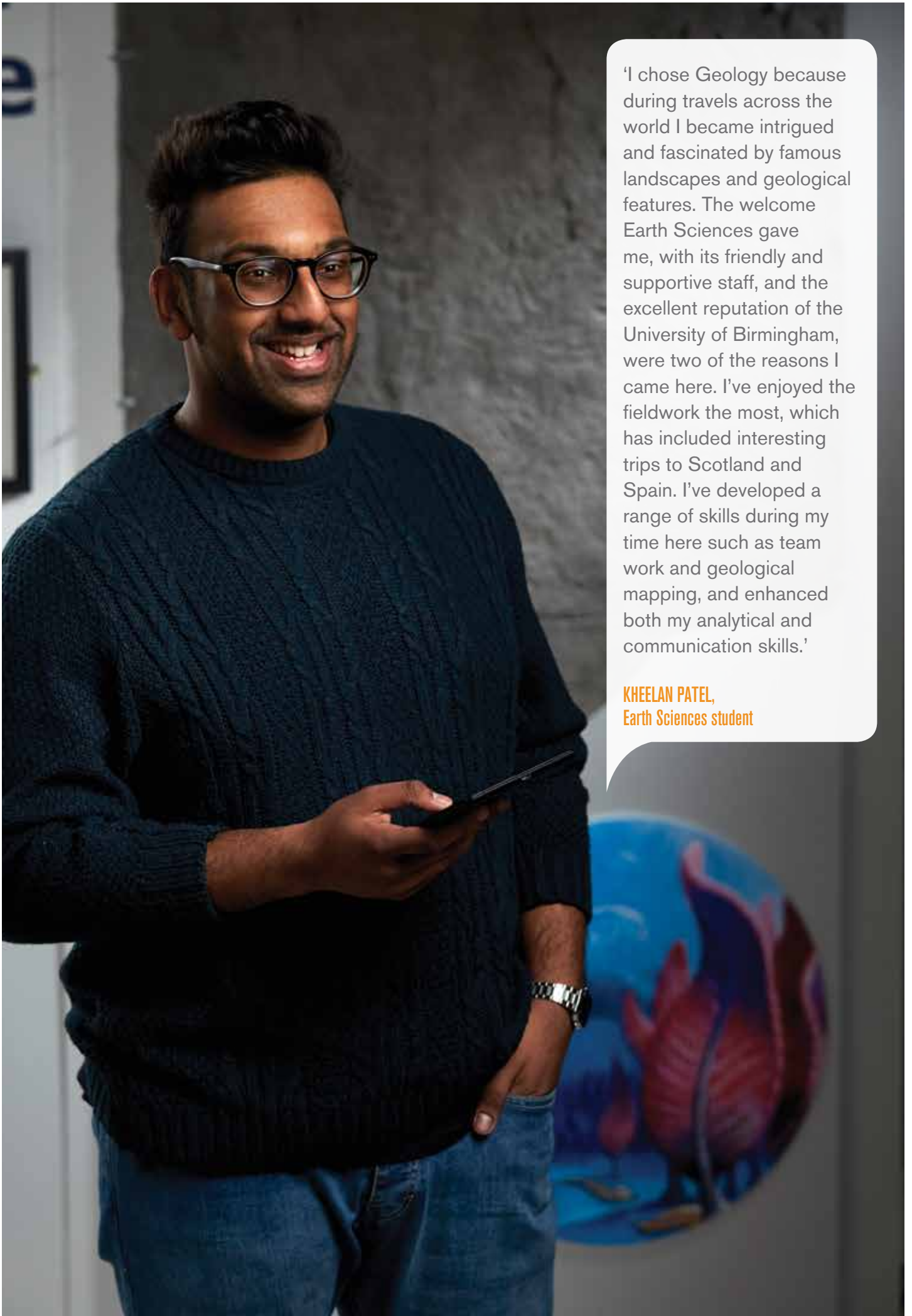


PROFESSIONAL PLACEMENT FOR GEOGRAPHERS

This optional module provides you with the opportunity to develop generic and discipline-specific transferable skills by experiencing the realities of working life. Through a placement scheme you work for an organisation learning:

- The day-to-day responsibilities of working in a job through shadowing
- Practical experience of being involved in a project
- Ways to disseminate results to the appropriate people within the organisation

This provides the basis for critical reflection on the links between theory learnt in an academic setting and practice in a work situation. In addition, you will gain invaluable experience of work that will help equip you for your future career.





'I chose Geology because during travels across the world I became intrigued and fascinated by famous landscapes and geological features. The welcome Earth Sciences gave me, with its friendly and supportive staff, and the excellent reputation of the University of Birmingham, were two of the reasons I came here. I've enjoyed the fieldwork the most, which has included interesting trips to Scotland and Spain. I've developed a range of skills during my time here such as team work and geological mapping, and enhanced both my analytical and communication skills.'

KHEELAN PATEL,
Earth Sciences student

Earth Sciences

Earth Sciences is the scientific study of our planet, encompassing topics as diverse as tectonic processes, climate change, volcanic hazards and the evolution of life. It truly is a global science.



GEOLOGY AND PHYSICAL GEOGRAPHY

If you're fascinated by physical geography and interested in the way the Earth's surface is shaped, inquisitive and love working outdoors, this course is for you. Emphasising and exploring the common ground between physical geography and Earth sciences, this diverse programme allows you to study topics as varied as natural hazards, environmental protection, river processes and hydrogeology. Even though geology may be a new subject to you, we provide a good grounding in the subject during your first year (as well as extending your knowledge of geography), so that by the end of your second year, you are in a position to choose a field-based major project that is either geology or geography-focused or a real mix of the two subjects. Major projects involve independent field and laboratory work at home or abroad. The taught fieldwork programme is a fundamental part of the course and all field trip costs are covered by your fees. The programme offers plenty of flexibility, as well as the opportunity to apply to join the four-year MSci Geology and Physical Geography with an International Year programme, where your 12 months overseas will count towards your degree.



'The projects gave me the courage and knowledge to identify minerals and rock types and make connections between relationships.'

STAGIE JONES, BSc Geology and Physical Geography

100%
OF OUR GRADUATES ARE
IN EMPLOYMENT OR FURTHER
STUDY WITHIN SIX MONTHS
OF GRADUATING

4th FOR
EARTH AND
MARINE SCIENCES
THE GUARDIAN
UNIVERSITY GUIDE 2019



The
Geological
Society

GEOLOGY

From unravelling the disappearance of the dinosaurs to finding acceptable ways to dispose of nuclear waste, this programme will give you a broad-based knowledge of Earth sciences. Modules span a wide range of topics, including Palaeoclimates, Vertebrate Palaeontology, Applied Geophysics, Ore Geology, and Geological Natural Hazards. You will also acquire sought-after skills that will enable you to forge a career in a varied range of geology-related industries, from engineering to environmental work, and including sectors linked to energy, water, minerals and resources, as well as obtaining a host of generic transferable skills. Fieldwork is an integral part of the course (all field trips are free), and you will carry out a major mapping project, which could be as far afield as Australia or New Zealand. The programme offers plenty of flexibility, as well as the opportunity to apply to join the four-year MSci Geology with an International Year programme, where your 12 months overseas will count towards your degree.

For more information please visit

www.birmingham.ac.uk/earthsci

Earth Sciences



The
Geological
Society

PALAEONTOLOGY AND GEOLOGY

This programme will give you a rigorous training in geology, with a particular focus on palaeontology, the study of ancient plants and animals. The biology aspect of the programme will enhance your understanding of evolutionary processes and environmental controls on species distribution. You will learn techniques used to investigate the interactions between long-extinct organisms and their environments, from both geological and recent perspectives.

There is a strong emphasis on project work: you will carry out an extended field and laboratory-based assignment of your choice as part of your palaeontological research project. You will also go on field trips to develop palaeontological and geological techniques both in the UK and overseas (your fees cover the travel and accommodation costs of all taught field trips). This includes a new third-year module with a research-linked overseas field course (likely to be either in the USA or South Africa), where you will obtain hands-on experience of palaeontological fieldwork, as well as linked skills in sample preservation, analysis and curation through a museum-based component of the module. The programme offers plenty of flexibility, along with the opportunity to apply to join the four-year MSci Palaeontology and Geology with an International Year programme, where your 12 months overseas will count towards your degree.



Credit © Lee Allen



RESEARCH IN PRACTICE

Palaeontology student Luke Meade recently led a research project to capture a snapshot of geological time which revealed an important evolutionary moment 310 million years ago – when reptiles took over from amphibians as the dominant land animals.

Luke worked with Professor Richard Butler and PhD student Andrew Jones as part of a Palaeontological Association-funded project, on the unique collection of footprints (from the Lapworth Museum of Geology collections) from Carboniferous rocks in the Hamstead area of north-west Birmingham.

Using cutting-edge photogrammetric technology, he was able to study the fossil footprints from numerous angles, and then

use special software to turn the images into high-resolution 3D models. By comparing these models to Carboniferous tracks from other parts of the world, Luke was able to identify the types of animals that probably made the tracks.

Most common were amphibians, alongside these lived two other vertebrate groups. Pelycosaurs, were part of the great evolutionary lineage that would eventually lead to mammals, including humans, and the sauropsid reptiles, which have since diversified into everything from dinosaurs to lizards, turtles and birds. The dependence of amphibians on moist environments may have put them at a disadvantage compared to diversifying reptiles as the climate became arid.



'The first year at Birmingham offered a good grounding in geology. Going to university simply offered me the chance to have a career in geology and geophysics, which would have been impossible without a degree.'

CATHERINE PERRY, Geologist



'The field trips are a great chance to bond with your coursemates and learn in a different environment. Seeing things in the field really helps to put what you are learning into context and can help your understanding.'

SINEAD BERNARD, BSc Geology



Image taken at Library of Birmingham

INDUSTRY OPPORTUNITIES

You have the opportunity to engage with geoscience industries and gain valuable experience through a range of modules. Industry-linked research projects offer the opportunity to work directly with an industrial partner or other organisation, such as the British Geological Survey, as you undertake fieldwork, addressing a particular research question related to your research project and field site. Students on the Engineering Geology and Hydrogeology module also have the opportunity to complete a coursework exercise that is designed and co-supervised by an industry partner, comprising a site investigation with data and technical guidance provided by a geotechnical consulting company. A new optional Year 4 Professional Placement module will provide you with the opportunity to develop professional Earth sciences skills through the application of academic and practical skills in the workplace, and will help equip you for your future career. In addition to these modules, you will have the opportunity to acquire a range of applicable skills and will use professional software and datasets throughout your degree, thereby obtaining the experience required to forge successful Earth science-related careers.



LAPWORTH MUSEUM OF GEOLOGY



Founded in 1880, this is one of the oldest and finest specialist geological museums in the UK, housing more than 250,000 specimens ranging from 420 million-year-old fossils in local Wenlock limestone to colourful gems and crystals. Named after our first Professor of Geology, Charles Lapworth, one of the leading geologists of his time, the Museum is an amazing resource for students and researchers at the University, and open to the public. Following a £2.7 million redevelopment, the Museum includes new galleries and innovative exhibitions to showcase exceptional objects that have not previously been displayed. The Museum was a finalist for the Art Fund Museum of the Year 2017, the UK's largest and most prestigious museum prize and arts award.

For more information please visit

www.birmingham.ac.uk/earthsci



'When I was considering choosing Birmingham I was impressed by the academic staff's enthusiastic attitude for wanting to make a change in the world.'

'I've enjoyed choosing my research project. You are able to pick a topic that you want to do, whether it's to do with freshwater ecology or about attitudes towards the environment. I've chosen to study the behaviour of tigers and I'm really excited to start my research.'

CHARLOTTE WARD
BSc Environmental Science

Environmental Science



The world faces more challenges than ever before, as momentous environmental changes – from melting glaciers to the buildup of microplastics – sweep the globe. The need to meet these grand challenges and change the planet for the better has never been so urgent.

An Environmental Science degree from the University of Birmingham will give you the knowledge and skills to understand and solve some of Earth's most pressing environmental problems. You will learn from and work with internationally renowned scientists and develop skills that will open up a range of exciting and influential career options.

Not only will you be taught by academics who are world leaders in their field, you will also play an active part in their groundbreaking research. Our course structure provides plenty of choice and flexibility: and you will be encouraged and supported to find your own areas of interest to study and research.

Our specialist pathways offer a choice of modules with topics as diverse as climate change, freshwater management, recycling and waste management which are tailored to tackling the world's big challenges. You will develop your own research interests for your third-year project, which might see you studying air pollution in Delhi, India or water pollution in Guangzhou, China.

Our facilities are unique and cutting-edge: BIFoR (Birmingham Institute of Forest Research) is the only such facility in the Northern Hemisphere that comes with an entire forest dedicated to investigating the effects of climate change. The new Collaborative Teaching Lab (CTL) will provide a state-of-the-art learning experience with dedicated wet, dry and e-labs, as well as allowing you to work with students from other disciplines. We also have first-class research facilities in environmental pollution monitoring, water science and nanomaterials.

Getting out of the lecture room and into the field is one of the most exhilarating and rewarding aspects of your degree. As well as undertaking fieldwork in the UK and Europe,

you will also have the opportunity to take part in an international field trip with independent study in your third year. Recent fieldwork destinations include Tenerife and Malta.

If the idea of combining your studies with a vocational year in Australia or New Zealand appeals, the four-year BSc Environmental Science with a Professional Placement Abroad (Australasia) programme is the ideal choice. The eight months you spend abroad, working on a current environmental challenge, will count towards your degree and provide real workplace experience. You can also apply for a year abroad option – either direct entry, or by transfer, subject to performance in Year 1.

Employability skills are woven into the curriculum, including computer programming and resilience. Our third year placement module gives you the chance to spend time in industry, applying your knowledge and expanding your skills. Recently students have played key roles in projects for The Wildlife Trusts, and provided important insight into a software company's carbon footprint. We also offer a final year entrepreneurial module which poses real-world challenges set by industry giant BP.

Finding answers to real-world problems will make you highly employable. Excellent academic knowledge together with valuable experience gained from work placements or internships will open the doors to a vast range of diverse careers in the UK and overseas, from working with environment agencies and government departments to charities and businesses.



Our programmes are accredited by the Institution of Environmental Sciences (IES) highlighting our academic excellence and their professional relevance and applicability to the workplace



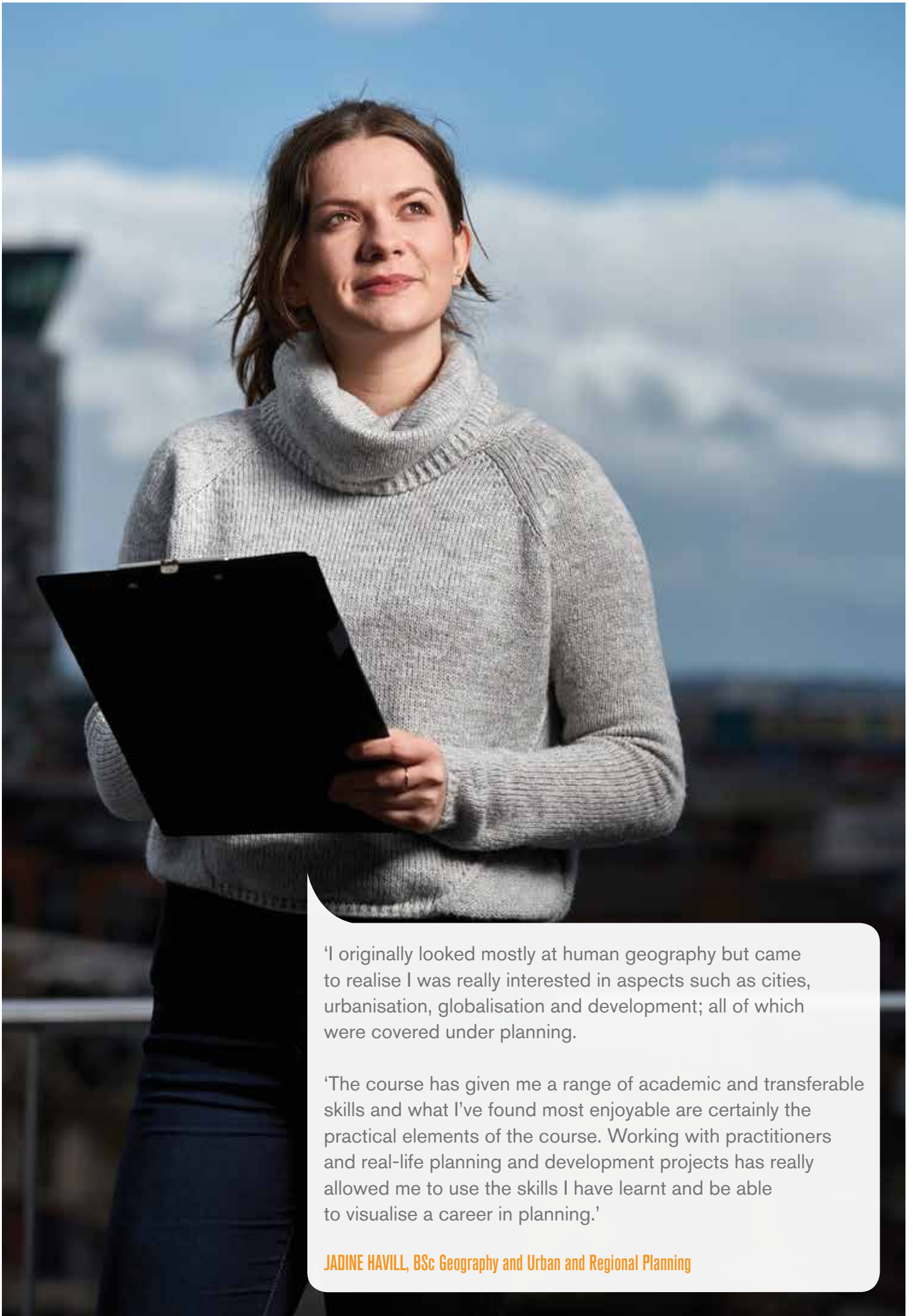
JAMES RAY Fish Biologist, currently living and working in the USA

'Since I graduated, my experiences whilst studying at Birmingham have been invaluable for opening career doors, and continue to help me approach issues I face at work from a multidisciplinary perspective. I'm currently helping to conserve and protect salmon and trout populations in Oregon through promoting a "healthy watershed" approach to land management.'



Recent placement destinations:

- Birmingham City Council
- Environment Agency
- BIFoR
- Public Health England
- Birmingham and Black Country Wildlife Trust
- Northfield Ecocentre



'I originally looked mostly at human geography but came to realise I was really interested in aspects such as cities, urbanisation, globalisation and development; all of which were covered under planning.'

'The course has given me a range of academic and transferable skills and what I've found most enjoyable are certainly the practical elements of the course. Working with practitioners and real-life planning and development projects has really allowed me to use the skills I have learnt and be able to visualise a career in planning.'

JADINE HAVILL, BSc Geography and Urban and Regional Planning

Urban and Regional Planning

Are you fascinated by cities – what makes them tick, how they change over time, why some succeed better than others? Would you like to ‘place make’ or ‘place shape’ the cities of tomorrow? Then let us pave the way for you.

Here at Birmingham, we’re unashamedly urban. That’s because this great city is a first-rate planning laboratory – a dynamic, contemporary example of why urban centres alter and adapt and how planners influence their evolution. Our BSc Geography and Urban and Regional Planning degree programme will equip you with the necessary knowledge and skills to make a difference to how we live today and in the future.

Our Centre for Urban and Regional Studies (CURS), which is a leading international centre for research, teaching and consultancy in spatial and social planning studies, puts great emphasis on practice-based planning. So you will spend a lot of time doing real-life project-based work – from finding new uses for old buildings and looking at the effects of HS2 to the regeneration of housing estates and urban parks – some of which you might see incorporated into existing or future schemes.

Why study planning?

Are you affected by the state of our urban environment? Good planning can transform the quality of our towns and cities and help to improve the quality of life for all their inhabitants. Urban planning can help to create successful places where people want to be and contribute to our well-being. It can create a sustainable future for us all. If you want to be able to shape and influence the nature of the built environment then planning is for you. There is enormous synergy between urban and regional planning and geography, especially human geography, and this is the programme’s focus.

You will have access to a wide range of modules in one of the largest and most vibrant geography departments in the country, on top of the flexibility and choice offered in planning. There is a lot of practitioner input into the programme and there are opportunities for European field trips – this year it was to Berlin – and professional placements.

What is planning?

According to government policy, planning is about managing the use and development of land and buildings with the overall aim of creating better places to live, work and play. It is about trying to ensure that we have the right development, in the right place at the right time. It is about place-making and place shaping and creating dynamic and exciting urban spaces. It is about making our town and cities better.



1st IN THE
RUSSELL GROUP
FOR GRADUATE
EMPLOYABILITY

100%
OF OUR GRADUATES ARE
IN EMPLOYMENT OR FURTHER
STUDY WITHIN SIX MONTHS
OF GRADUATING

FACT

A Planning degree from Birmingham provides a raft of opportunities in the private and public sectors, both of which demand the skills and know-how you will acquire with us, such as business acumen, group-working abilities and technical expertise.

JESS HERRITTY BSc Geography and Urban and Regional Planning

‘I’m currently studying for my MSc Urban and Regional Planning degree at Birmingham and I have also just started working as a Graduate Planner at Fisher German, a private consultancy. The fact that Birmingham is a campus university within one of the biggest and best cities in the UK was one of the major benefits for me, especially studying planning. Pretty much everything we do is about the city and urban areas and Birmingham is one of the biggest and is developing so much all the time! It was the perfect choice for me.’



For more information please visit

www.birmingham.ac.uk/ugplanning

Overseas opportunities

Studying or working abroad expands your horizons. We offer a wealth of international opportunities that will enhance your learning and skills in a global environment.

Experience overseas demonstrates ambition, confidence and a willingness to embrace new ideas. In an increasingly globalised economy these attributes are more and more prized by employers.

Many of our programmes offer the chance to spend a year abroad. You might choose the MSci with an International Year (Geology and Physical Geography or Palaeontology and Geology) studying at one of our many partner institutions across the world, or the BSc Environmental Science with a Professional Placement Abroad, which sees students working in a variety of organisations in New Zealand or Australia. Geography and Environmental Science also offer a Year Abroad option, and have exchange agreements with universities in the USA, Canada, Germany, the Netherlands and Sweden amongst many others.

If a year abroad is a little too long, all our degree programmes are designed to provide opportunities for international experience. Many of our students take advantage of an extensive range of overseas internships. For example, one of our students recently travelled to Malawi to work at the Kuti Game Reserve and another spent time in Alberta, Canada contributing to research into the reclamation of wetlands disturbed by oil mining activities. Moreover, our varied fieldwork programme offers the chance to travel to destinations across Europe and beyond.

You can also apply to attend annual summer schools through the Universitas 21 network of leading global research universities, of which Birmingham is a founding member. These attract the best students from across the world to engage in an exchange of culture, experiences and intellectual ideas.

Recent successful applications have seen our students travel to summer schools in Melbourne and Montreal.



The University's funded work experience scheme offers financial support to undertake work experience overseas in the summer vacation. The International Work Experience bursary is available to students who source their own work experience opportunities and require funding to assist with the costs involved.

The Study Abroad and Exchanges team is available to offer advice to students who wish to travel abroad including guidance on the application process.



'The skills I have developed on this work experience are the same needed in jobs I wish to apply for. I have had the opportunity to network with professionals from all over the world who have similar careers to what I am interested in after graduation.'

UILANI DINES, BSc Environmental Science with a Professional Placement
 Abroad student on an ecological research internship with EKAD Turkey,
 collecting information on turtle populations



ANDREW EDEN

BSc Environmental Science with a Professional Placement Abroad
 alumnus, now working as a Senior Flood and Coastal Risk Advisor at the Environment Agency

'Working on a student placement within the National Institute of Water and Atmosphere (NIWA) in New Zealand unveiled an array of scientific fields and specialisations to me. Whether your interests lie in environmental modelling, hydrology, ecological disciplines or even marine ecosystems, NIWA will find a part for you to play. Having the chance to work with excellent researchers and the freedom to be involved with a variety of projects that interest you is an opportunity not to be missed... not to mention the fact that you spend a year in one of the most friendly, extraordinary, culturally diverse and environmentally pristine places on the globe. I feel this experience will put me in a strong position when applying for jobs after graduation.'



CHARLOTTE-ELLEN EALES
 MSci Geology graduate, studied for a year abroad at the University of Adelaide in Australia

'My international year allowed me to take modules in the geology department as well as in the Petroleum School, which really

widened my knowledge base and have been critical for helping me break into the petroleum industry. Studying abroad is so much more than what it says on the tin; it's about integration, mental attitude, strength, change, self-belief and finding out what makes you happy. I will continue to reap the social and academic rewards of my international year for a long time.'

Fieldwork

Getting out of the lecture theatre and into the field is an exhilarating experience. Whether you're sampling, mapping or collecting data, the subject matter really comes alive. There's no better way to learn about the natural and the built world than by being in the great outdoors.

Fieldwork is an integral part of all our degree programmes. It offers you the chance to travel, work independently as well as in a group and learn valuable technical skills.

Not only do we have on our doorstep arguably the best urban 'living laboratory' in the UK, Birmingham's location in the heart of the country means we are also in easy reach of some of the most scientifically interesting and scenic landscapes the UK has to offer.

Residential field trips also take place in Europe and beyond; providing a distinctive global perspective. Recent destinations for geographers and environmental scientists have included Rotterdam, Malta and Turkey, whilst Berlin is a regular place of field study for planners. Earth scientists visit locations such as

Pembrokeshire, the Scottish Highlands, Northern Ireland, Tenerife and southern Spain, amongst other places of geological significance both in the UK and abroad. Palaeontology and Geology students will undertake an overseas field course at an active research site, with likely destinations either in the USA or South Africa.

Along with field courses, you might also carry out a field-based research project, either in the UK or overseas. Recent projects include: ecotourism in New Zealand; responses to AIDS in the Western Cape of South Africa; hydrological change in arctic and subarctic environments; seismic processing and interpretation of the deep Galicia Rift (Spain); the environmental and regulator implications of Brexit; and the water footprint of students.

Your fieldwork training gets underway early in Year 1, so that you quickly learn to work in small groups, and is embedded throughout the three or four years of your degree programme.



The costs of travel and accommodation on all compulsory field courses are covered by the School. For optional Year 3 Geography and Environmental Science field trips, the School will cover the travel and accommodation costs of all European based field work. For field trips outside of Europe, the School will make a contribution of £500 per student towards the cost.





The learning environment

How you learn is as important as what you learn. The learning experience at Birmingham combines a wide variety of study methods extending way beyond the lecture theatre.

Our cutting-edge teaching programme is built on a foundation of over one hundred years of research and teaching excellence. From the outset you will be encouraged to become an independent and self-motivated learner shaping your own intellectual development with us. The research-led teaching on our flexible degree courses ensures an inspirational and enquiry-based learning environment in the classroom, lab and field.

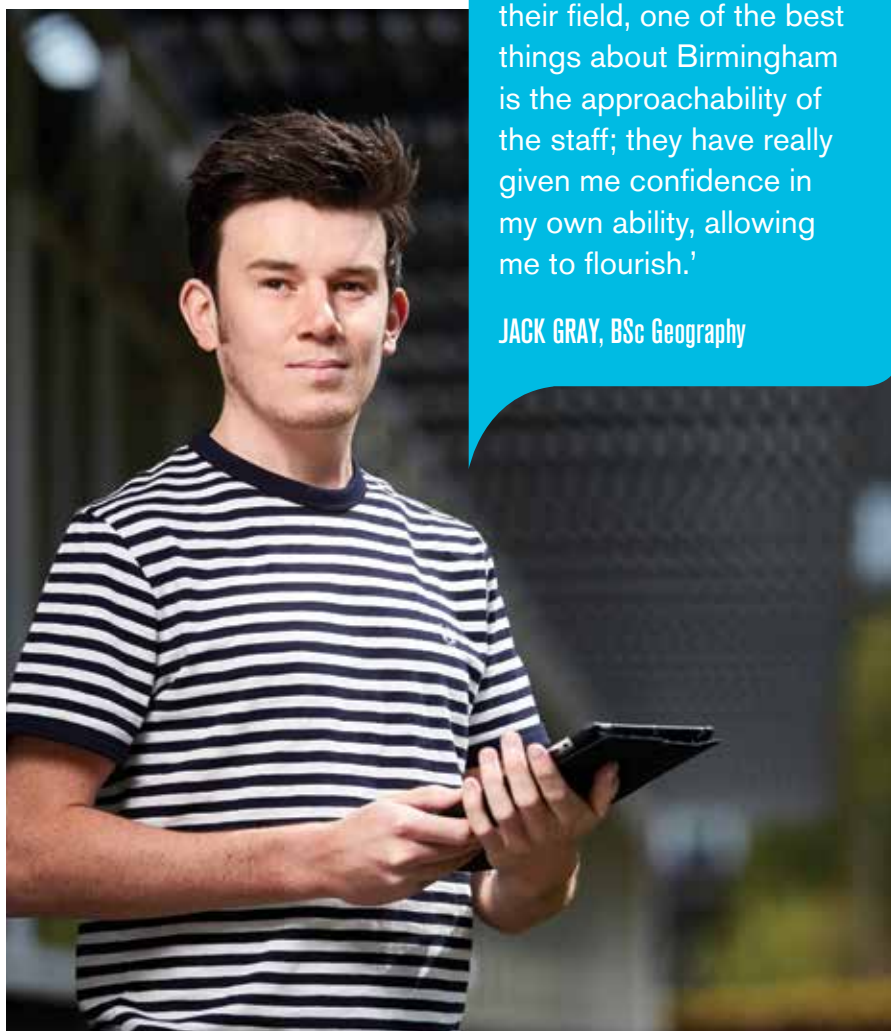
As well as lectures, tutorials and practical classes you will have access to extensive educational facilities across the School and University including library resources,

a well-equipped map room, state-of-the-art laboratory and IT facilities, and purpose-built learning spaces. You will also have a wealth of opportunities to go out into the field; gaining hands-on experience on residential courses across the UK and overseas.

Our on-campus Lapworth Museum of Geology is one of the oldest specialist designated and accredited geological museums in the UK, this is an invaluable study resource.

'Apart from being inspired by leading academics in their field, one of the best things about Birmingham is the approachability of the staff; they have really given me confidence in my own ability, allowing me to flourish.'

JACK GRAY, BSc Geography



The Birmingham Institute of Forest Research (BIFoR) is a world-leading centre in the understanding of how forests react to the combined threats of climate change and invasive pests or diseases.

The University's new Collaborative Teaching Laboratory (CTL) facility brings together practical teaching activities across a broad range of science and engineering disciplines. The new build incorporates a wet lab, dry lab and e-lab.

Our School is a close-knit community and we adopt a very personal approach. You will be assigned a personal tutor upon arrival; an academic member of staff who will support your academic progress and assist with any academic or welfare issues throughout your time at Birmingham.

Teaching in the School is hands-on and extremely varied in approach. You will learn from academic specialists at the top of their fields and the world-leading research they carry out feeds directly into our degree programmes.

Assessment

Your degree will be appraised in a mixture of ways: coursework, major projects, practical work, oral presentations, exams and continual assessment. Some modules are entirely assessed via coursework. We place strong emphasis on individual project work/the research project in Years 2 and 3.



A LIBRARY FOR THE 21ST CENTURY

Our new £60 million University library provides outstanding facilities, including a variety of physical and digital learning spaces for a new generation of students and researchers.



EXAMPLE RECENT RESEARCH PROJECT TITLES

- Social Networking: the ageing face
- Seismic processing and interpretation of the deep Galicia Rift
- Why so quiet? The socio-economic anatomy of a rural village during times of austerity
- The accuracy of swell models for surf forecasting
- A critical exploration of recycling practices in contemporary China
- Evidence of glaciations along the Martian dichotomy
- Geographies of protest surrounding the HS2 rail link proposals
- Climate change message framing and public engagement: is 'local' always 'better'?



Life at Birmingham

Both the city and our beautiful campus are brimming with life and culture, making it a fantastic place to live and study.

Societies, School and campus life

The School of Geography, Earth and Environmental Sciences is one of the friendliest and most dynamic at the University. There's a great atmosphere and sense of community among students and staff. Learning apart, there is a lot going on, much of it driven by the two main student societies:

The Kinvig Society – named after the first head of the Geography Department, Robert Henry Kinvig – is one of the biggest and most active student societies on campus. Run by students, it lays on a lively and varied programme of social events throughout the year, culminating in the black-tie Kinvig Ball at one of the city's top venues in November and a European trip. As well as trips to restaurants, bars and nightclubs, there are sporting events: Kinvig sports representatives organise teams for the inter-departmental University sports leagues.

Football, rugby, hockey, netball, volleyball and squash are usually available for both men and women; in some cases, for mixed teams as well. If you're a geographer or environmental science student, Kinvig will write to you before term starts with a full programme of events to help you settle in happily during your first few weeks.

The Lapworth Society (LapSoc) – is the student society for Earth Sciences students. Named after Birmingham's first Professor of Geology, Charles Lapworth, it organises social events such as pub quizzes, drinks nights and the end-of-year-ball in March. It fields intermural sports teams in the University's netball and six-a-side football leagues, training regularly and playing matches every Wednesday afternoon against other schools across campus.

Envirosoc – the Guild-affiliated society for Environmental Science students runs an action-packed programme of social, sporting and environmental activities. You can meet them during Fresher's week, join up and get involved.



Our new £55 million Sport & Fitness club, boasts a wide range of state-of-the-art facilities, including Birmingham's first 50m swimming pool.



During WWI, the University's Great Hall was a hospital and a centre for war medicine, treating 130,000 patients. Today it hosts official ceremonies and high-profile events such as election debates, *Question Time* and the *Antiques Road Show*, as well as being where you will graduate from.



THE PERSONAL SKILLS AWARD (PSA)

The Personal Skills Award (PSA) gives you exclusive access to tailored skill development support and innovative online skill modules.

We recognise over 200 on-campus extra-curricular activities as part of the award, offering you the opportunity to prepare yourself for graduate employment.



Birmingham is home to the famous Balti Triangle, a must-visit place for curry lovers. Cadbury's chocolate was also founded here almost 200 years ago. Today you can find popular attraction Cadbury World in Bournville, just a few miles from the University.

How to apply

We attract high-quality candidates from a wide variety of backgrounds. Enthusiasm and an appetite for learning are more important than previous knowledge of the subject.

How do I apply?

You should apply through the Universities and Colleges Admissions Service (UCAS). We are happy to provide help and advice should you wish to discuss your qualifications or find out more about the programmes before completing your UCAS form. Please find our contact details below.

When should I apply?

Demand for places is high and we advise all applicants to apply early. The deadline for applications through UCAS is in January for entry in September.

International Baccalaureate Diploma

Our standard offer is Higher Level with no less than 32 points overall. For specific HL scores and subjects, visit: www.birmingham.ac.uk/gees/areasofstudy

International students

Applications are welcomed from overseas students with qualifications equivalent to our standard entry requirements. For further information, visit: www.birmingham.ac.uk/International/students/entry-requirements.aspx

Applicants returning to education

We welcome applications from people who have been out of education for some time and who may not meet the standard programme entry requirements. We encourage such applicants to contact us to discuss the suitability of your qualifications and experience.

Optional modules

The optional modules listed on the website for our programmes may occasionally be subject to change. As you will appreciate key members of staff may leave the University and this necessitates a review of the modules that are offered. Where the module is no longer available we will let you know as soon as we can and help you make other choices.

Fees and funding

For comprehensive information on fees and funding, please visit: www.birmingham.ac.uk/undergraduate/fees/index.aspx

Offer-Holder Visit Day

Should you apply to Birmingham and be made an offer you will be given the opportunity to join us at an Offer-Holder Visit Day (OVD). You will be able to visit the School and its facilities, talk to current students and staff, experience student life (taster lectures and practical sessions), tour student accommodation and the rest of our stunning campus. The OVD is an ideal opportunity to ask questions about all aspects of the programmes and should give you a clear idea of what Birmingham has to offer.



LEARN MORE

Geography

www.birmingham.ac.uk/geography
Email: uggeographyadmissions@contacts.bham.ac.uk

Earth Sciences

www.birmingham.ac.uk/earthsci
Email: uggeologyadmissions@contacts.bham.ac.uk

Environmental Science

www.birmingham.ac.uk/evs
Email: ugenviroscienceadmissions@contacts.bham.ac.uk

Planning

www.birmingham.ac.uk/ugplanning
Email: uggeographyadmissions@contacts.bham.ac.uk

| Programme | UCAS code | Duration | Typical offer | Subject requirements |
|--|-----------|----------|---------------|---|
| Geography | | | | |
| Geography BA | L700 | 3 | AAB | We do not specify subject requirements for our Geography programmes |
| Geography BSc | F800 | 3 | AAB | |
| Geography MSci | F80A | 4 | AAA | |
| Geography with a Year Abroad BA | L701 | 4 | AAB | |
| Geography with a Year Abroad BSc | F801 | 4 | AAB | |
| Geography with an International Year MSci | L70A | 4 | AAA | |
| Earth Sciences | | | | |
| Geology BSc | F600 | 3 | ABB | One science subject at A level (Geography and a range of other subjects are considered as sciences) |
| Geology MSci | 7F83 | 4 | AAB | |
| Geology with an International Year MSci | F601 | 4 | AAA | |
| Geology and Physical Geography BSc | FF68 | 3 | ABB | |
| Geology and Physical Geography MSci | 9F78 | 4 | AAB | |
| Geology and Physical Geography with an International Year MSci | FF69 | 4 | AAA | |
| Palaeontology and Geology BSc | FC69 | 3 | ABB | Biology A level |
| Palaeontology and Geology MSci | 8C63 | 4 | AAB | |
| Palaeontology and Geology with an International Year MSci | FC70 | 4 | AAA | |
| Environmental Science | | | | |
| Environmental Science BSc | F900 | 3 | ABB | One science subject at A level (Geography and a range of other subjects are considered as sciences) |
| Environmental Science MSci | F750 | 4 | AAB | |
| Environmental Science with a Professional Placement Abroad (Australasia) BSc | F850 | 4 | AAB | |
| Environmental Science with a Year Abroad BSc | F751 | 4 | AAB | |
| Planning | | | | |
| Geography and Urban and Regional Planning BSc | LK74 | 3 | ABB | |

If not stated otherwise all programmes require at least grade 4/C in both GCSE English and Mathematics





UNIVERSITY OF
BIRMINGHAM

Edgbaston, Birmingham,
B15 2TT, United Kingdom
www.birmingham.ac.uk



This leaflet was written several months in advance of the start of the academic year. It is intended to provide prospective students with a general picture of the programmes and courses offered by the School. Please note that not all programmes or all courses are offered every year. Also, because our research is constantly exploring new areas and directions of study some courses may be discontinued and new ones offered in their place.

Please note the information in this brochure is correct at time of publication but may be subject to change (June 2019).

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