



School of **Earth and Environmental Sciences**

Undergraduate Degree Programmes

[www.cardiff.ac.uk/earth-environmental-sciences](http://www.cardiff.ac.uk/earth-environmental-sciences)



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Wales Most Sustainable University 2023.

Wales Online

Most Affordable UK University City.

Natwest Student Index 2022

85% of our students are satisfied with their teaching.

National Student Survey 2023

Our integrated field work and laboratory work ensure you graduate with lucrative skills and plenty of hands-on experience.

The variety of modules allowed me to gain employment in different sectors.

Kate McElligott



# Hello to our prospective incoming class members!

The School of Earth and Environmental Sciences at Cardiff University will prepare you for a wide range of exciting and diverse career opportunities and I am delighted to welcome you.

Studying for an undergraduate degree is a wonderful experience and is a major investment in your future. At Cardiff University we work hard to provide you with the ideal learning environment to be able to achieve your full potential and graduate as confident, skilled and adaptable Earth and environmental scientists.

We will work with you on a challenging and comprehensive programme to help you understand the evolution of the Earth and its environment – past, present and future – exploring some of the most complex issues facing our planet today, from climate change through to the sustainable development of Earth's resources.

Our focus on field work, laboratory and digital skills builds a strong and vibrant School community and your learning will be supported by some of the world's most respected researchers in the Earth and environmental sciences. We offer a wide range of three- and four-year programmes. You may be able to add a Year of study Abroad or a Professional Placement Year to your 3-year BSc programme, providing the opportunity for you to explore different countries and cultures or to focus on your career goals. You may choose to take a 4-year integrated masters based in Cardiff that will allow you to explore topics that you are passionate about more deeply.

Whichever of these options you choose to follow, you will find being a member of our School community an enriching experience. Life as an undergraduate student is rich in social, cultural and academic opportunities and Cardiff is Wales's most popular centre for social life, leisure, and entertainment.

I hope that you will be able to join us soon and good luck with your preparations for your exciting university journey!



**Dr Jennifer Pike, Head of the School of Earth and Environmental Sciences**



# Why study Earth and Environmental Sciences?

Choosing to study Earth and Environmental Sciences is opting to explore our most vital, ancient and changeable resources – the planet beneath our feet, the air that surrounds us, the water we drink and the landscapes we enjoy.

Earth and Environmental Sciences are ideal for people that want to explore varied studies of sciences like biology, chemistry and physics along with history and public policy. It allows you to apply practical solutions to real-world problems, forecast and predict event trends, and adapt modern sustainability practises for citizens' everyday use.

Our scientists are engaged in projects to reduce risk and build our resilience to disasters; protecting and conserving global wellbeing with hazard prediction, flood, volcano and landslide planning. Marine geographers and consultants map and discover the secrets of the Earth's last frontiers in the ocean, whilst geologists and geoscience experts acquire resources we need for a Net Zero future in a responsible manner.

You could be working in a laboratory to model data, visiting floodplains or industrial sites in your local area to collect samples, recording wildlife activity in specific habitats near or far, or observing tectonic activity in regions across the globe. Earth and Environmental sciences are naturally global facing, with a wealth of local, national and international job roles for you to consider.

Whether they're directing the clean-up after industrial accidents, working with civil engineers to ensure the success of new public infrastructure builds, or conserving habitats for wildlife and vegetation, Earth and environmental scientists are making daily impacts that secure our safety and longevity.

Our academics are world-leading, award-winning and internationally focused, working at the frontiers of geotechnical and geoscientific discoveries. This means that the knowledge and approaches shared with you in our lecture halls stays accurate, cutting-edge, and relevant to the industries you'll be applying to in a few short years.

Research projects are underway all over the planet, from the oceans around Antarctica to forested mountains at the equator, so students benefit from international approaches and priorities. This makes Cardiff students attractive candidates to a range of employers, as each graduate leaves our School as a knowledgeable and adaptable professional, armed with a global and inclusive outlook.

Having a vast range of research on offer at Cardiff University also means students learn a variety of lucrative skills and tools, alongside having their understanding of global contexts and responses to current environmental challenges frequently challenged. Our students leave well-informed with a clearly defined sense of their own values and aspirations, ready to make a difference in the wider world.



**Read on to find out how you can apply for our Earth and Environmental Sciences degrees and join them.**









# Reasons to be a Cardiff Earth and Environmental Science student

## 1

**As a Russell Group University, we offer you access to excellent teaching and top-class research facilities.**

We work hard to create an ideal learning environment for you. You will be supported to make sure you get the most out of your experience at Cardiff and you'll have access to our high-quality teaching facilities - from libraries and lecture halls to labs and online learning tools, as well as free language tuition through Languages for All to aid you to work and thrive internationally.



## Hear from Professor Carrie Lear, Director of Research:

Research within the School of Earth and Environmental Sciences is as fascinating as it is broad. We investigate natural processes that evolve over a wide range of time and spatial scales, shaping the world around us, from deep within the Earth, through the crust, into the oceans and onto the land. We also research human impacts on our environment, and we work in partnership with communities and industries to find future pathways supporting healthy and sustainable environments under increasing pressure from human activities.

Our world leading researchers work within seven Research Centres: Climate Change Impacts, Living Oceans, Environmental Hazards and Risk, Habitable Earth, Tectonics and Geophysics, Magmatic Processes, and Minerals and Energy. Given the important role that Earth and Environmental Science has to play in solving many of the most pressing societal challenges today, we also work within larger research teams, such as the Net Zero Innovation Institute which is delivering the vital innovation, collaboration, and technological advances needed to achieve net zero.

The breadth of our research is reflected in the range of taught modules offered to our undergraduate students, who can get involved through practical classes and

workshops, as well as through their own research projects in the laboratory and in the field.

The quality and global significance of our research was highlighted in the national 2021 Research Excellence Framework, where we ranked 2nd in the UK for the quality of our research output.

As for our exceptional facilities, we have also invested heavily into our CELTIC Laboratory, with Earth and Environmental Science laboratories well equipped for analysing the trace element and isotopic composition of a whole range of samples, from meteorites to seawater.



**Carrie Lear, Director of Research**

## 2

**Our fieldwork locations are unrivalled.**

In under an hour, you can discover stunning coastlines with AONB status which are home to exciting geological rarities, the world-famous Bannau Brycheiniog national park with its dramatic landscapes, fascinating land and marine wildlife habitats, as well as a dynamic array of green and post-industrial geographical sites of interest.

You'll take trips out throughout your degree to experience all that Wales has to offer, and we can provide a safe maintained store of essential equipment so that that students experiencing financial hardship can loan essential items to ensure their participation. We are one of the only universities offering accessible in-field trips, and we work with our students as equals to eliminate barriers in accessing high-calibre field experiences.

## 3

**Our highly motivated and talented students benefit from exceptional teaching informed by cutting-edge research that ranges widely across environmental sectors.**

In the most recent government Research Excellence Framework (REF), 100% of our research outputs were deemed 'world-leading' or 'internationally excellent', ranking us 2nd in the UK for our outputs and 8th overall for Earth Systems and Environmental Sciences. Cardiff's world-leading academic staff are knowledgeable, approachable and highly skilled as geoscientific professionals, so our students leave ready to tackle a range of challenges in their chosen fields.

**86% of our students are satisfied with their learning resources.**

**National Student Survey 2023**

## 4

**We're committed to creating an inclusive and accessible learning environment for students and staff to come together.**

We support students and staff to become ambassadors for URGE (Unlearning Racism in Geosciences) through dedicated training, hoping to incorporate principles of fairness and anti-racism holistically across every aspect of School life. We're a holder of the Athena Swan Bronze Award supporting gender parity in higher education and we facilitate accessible fieldwork, aiming to create a fully inclusive environment for all students.

## 5

**Can't decide whether to take Geology or Environmental Geoscience? Physical or Marine Geography? What about a Year Out for a placement or to study abroad?**

Here at Cardiff, most of our Earth and Environmental Science degrees are flexible, with a common first semester. This allows you to swap between any of our programmes (with the exception of Environmental Sustainability Science) during the first term, and degrees within the same stream up until the end of the first year (Exploration Geology, Geology and Environmental Geoscience are our geoscience stream and Environmental Geography, Marine Geography and Physical Geography comprise our geography stream).

You can apply directly for our Year Abroad placement programme through UCAS, and you can opt into our Professional Placement up until midway through your second year, as long as you maintain a reasonable baseline standard in your assessments. This means you can take some of the initial stress off, whilst still personalising your degree to fit your emerging passions and career direction once you're fully settled in.



The teaching is great and the links they have into industry are superb. We worked on really interesting projects and I walked straight into a job when I finished.

**Michael Doughty,  
Applied Environmental  
Geology MSc**

## 6

**As an Earth and Environmental Sciences student at Cardiff, you have the advantage of a dedicated Earth and Environmental Science Placements Officer.**

Their role is to provide you with advice and direction on employability skills, share relevant job opportunities and help you shape your job applications. You can reach out at any time during your degree, regardless of whether you have opted to incorporate a Placement Year, to find opportunities to flesh out your CV and present yourself so that employers pay attention.

## 7

**As a Cardiff Earth and Environmental Sciences student, you'll have access to, and dedicated skills sessions on using, industry standard GIS software; used daily by millions of geoscientists.**

There is also external support from Cardiff University's central learning team on offer to boost your day-to-day study skills (everything from how to write academic essays, improving your self-led research to maths support) and build your confidence in tackling your chosen subject with aplomb.

## 8

**Cardiff students have strong prospects for employability, and we pride ourselves on shaping your degrees with industry, so you hit the ground running, wherever in the world you land.**

Recent figures show that more than 89% of the School's graduates were in employment or further study within six months. We have a wealth of industry contacts, including geoscientific, geotechnical and marine surveying and consultancy firms, as well as conservation projects who provide undergraduate placements and projects for our students.



I graduated with a BSc in Marine Geography and I'm going back to my placement provider after the course for a full-time job in hydrographic surveying, which is incredible.

**Finlay Drummond,  
Marine Geography BSc**

## 9

**Our School is in the same building as the Welsh office of the British Geological Survey and next door to the National Museum of Wales, providing easy access to the exhibition galleries and collections to enhance our teaching.**

British Geological Survey Wales has a strong environmental focus and helps provide support for student projects along with advice on professional skills and careers.



# Which subject is right for you?

Environmental Geoscience

Environmental Geography

Environmental Sustainability  
Science

Exploration Geology

Geology

Marine Geography

Physical Geography

## Environmental Geography

UCAS Code: K32K (BSc), Y32N (MSci), K32L (Year abroad)

Course structure: This is a three-year full-time degree, or four years with our Professional Placement/Year of Study Abroad or MSci.

**Explore Earth's surface processes and study the human impacts on the environment through a mix of lectures and field trips.**

Are you passionate about finding solutions to the most urgent environmental threats facing our planet today? Having an in-depth scientific understanding of the natural environment is key to finding and addressing issues like climate change, water pollution, soil degradation and erosion. If you're concerned about the health of the planet and want to make a positive difference, our Environmental Geography course could be for you.

You will explore surface processes occurring within the natural environment and develop a scientific understanding of the impact that people have had on the chemistry and ecology of our planet's environment over time. You will study different environments across the world on land and at sea, from extreme polar environments to tropical coral reefs.

The course will also address the pressures that our environments currently face, covering topics such as water quality chemistry and mapping vegetation and soils. You will get hands-on with mapping and monitoring, producing your own maps using state-of-the-art, professional mapping software. Graduates leave with experience of hands-on fieldwork and cutting-edge research as well as a range of geographical skills in mapping, research, analysis and problem-solving that are transferable across a range of roles and industries.

You can choose between the three-year BSc degree and the four-year MSci degree. Our Master's degrees involve a fourth year of study where you work on an independent research project with a world-leading scientist from the School and their research team. You will develop the advanced research skills needed for a career in academic or industrial research and development.

### Fieldwork opportunities

Wales is like a playground for environmental geographers. From impressive mountains in the north to a biodiverse tidal estuary in the south, we have a huge range of natural environments to explore. We make the most of our location and take regular day trips to Gower, the Glamorgan Heritage Coast and Bannau Brycheiniog. There will also be opportunities to experience both a UK residential and an overseas fieldtrip, in the past we've been to the Netherlands and Switzerland. The cost of our compulsory field trips are included within your course fees. During the first few weeks, you will go on our fieldwork induction trip which will introduce you to safe and effective data gathering techniques, help you understand the wider applications of the course and bond you with your fellow environmental geographers.



I've just graduated and I've accepted a job at the Wildlife Trust. I'm super thrilled and looking forward to what comes next!

**Nathalie Nicholaus,  
BSc Environmental  
Geography**





### Careers and employability

With the planet under increasing pressure from climate change, over-exploitation and pollution, the knowledge and skills of an environmental geographer are in demand. An environmental geographer will play an important role in a greener, low carbon future, using their understanding of the Earth to find sustainable solutions to the challenges we face in the future. You can choose to work in a variety of different industries and roles including conservation and environmental management, environmental communications, as an environmental consultant or a geospatial analyst.

When you leave Cardiff, you'll be equipped with essential skills that sectors like consultancy, planning, conservation, education, and more prize in their candidates. Some of our past students have gone on to work at the Environment Agency, Natural Resources Wales, local government, environmental consultancies and environmental charities.

Studying a BSc Environmental Geography degree in the school was an exceptional journey that shaped my passion for the natural world and all the environments within it. The teaching approach was both insightful and engaging, with knowledgeable lecturers and professors guiding us through a wide range of topics. The field trips, especially to the Valais region of Switzerland, were a highlight, providing hands-on experience and connecting classroom knowledge with real-world scenarios.

Since graduating I have found it surprisingly easy to secure a fulfilling job in the field. Thanks to the comprehensive education and practical exposure, I have obtained a summer internship working as an Ecological Field Surveyor at Keystone Environmental Limited before continuing my studies at Cardiff through an MSc Global Ecology and Conservation commencing this coming year. The degree program truly prepares you for both a rewarding career and



opportunities for further study, and I am grateful for the incredible opportunities it has opened for me.

**Charlotte Hogg,**  
**BSc Environmental Geography**



# Environmental Geoscience

UCAS Code: F648 (BSc), F649 (MSci), F643 (Year abroad)

Course structure: This is a three-year full-time degree, or four years with our Professional Placement/Year of Study Abroad

**Do you have a curious mind? Are you fascinated by how the Earth works?**

An environmental geoscientist uses their understanding of the planet and its processes to predict hazards like floods and earthquakes to mitigate their effects, clean up the dangerous waste left by spills and antiquated industrial practices, and help civil engineers plan the construction of new public infrastructure.

On our Environmental Geoscience course, you will explore the different processes that happen on our planet like earthquakes, acid rain and global warming. You'll use this knowledge to solve real problems where the geological aspects of civil engineering, environmental monitoring and remediation, and climate change are relevant in the UK and globally. Plus, we'll help you develop high level skills in mapping, research, analysis and problem-solving.

There's no requirement for any previous Geology study as we start from the ground up in the first semester, ensuring all our students understand sound geological principles before proceeding. Cardiff's geoscience programmes are accredited by the Geological Society, the professional body for geosciences in the UK.

Our degrees were designed with industry at the forefront, so you graduate with the specialist and lucrative practical skills you need to excel as a professional environmental geoscientist. These skills cover fieldwork, the use of instrumentation for environmental monitoring, data capture and presentation using Geographical Information Systems (GIS) software, and technical report writing.

You can choose between our three-year BSc degree, the four-year version of our BSc degree including a placement year, or year abroad, or our four-year MSci

Your master's degree includes an additional fourth year of study, where you collaborate on a research project with a leading scientist from the School and their research staff. You will develop advanced skills in research and get experience of applying your findings to a current issue or problem in environmental geoscience, such as modelling the effects of volcanic eruptions on air travel or the health effects of volcanic ash in the lungs.

After graduating from three amazing years studying Environmental Geoscience, I became a Conservation Officer for the National Trust where I manage 270 acres of green space in Bermuda. I am constantly aided by the experiences and processes taught during the course. I gained invaluable international experience and made many lifelong friends.

**Lawrence Doughty,  
Environmental Geoscience  
Year abroad**

## Fieldwork opportunities

We make the most of our outstanding location. You'll take a variety of trips over the course of your programme to areas of natural beauty, as well as sites in South Wales with a historic industrial legacy. This area is ideally suited to teaching how geology impacts on both the landscapes and regional industry. There will also be opportunities to do overseas trips to explore environmental hazards and problems in different climates, in the past we've explored Cyprus and Northern Spain. While the costs of all the compulsory (including overseas) field trips are included within your course fee, a contribution is required if you take our optional overseas trip.

## Careers and employability

With the planet facing increasing environmental threats and challenges both natural and anthropogenic, the knowledge and skills of an environmental geoscientist are in ever-increasing demand. Environmental geoscientists will play an important role in developing sustainable infrastructure, green energy projects and helping to manage and remove pollution left by former industries like mining and chemicals manufacturing.

You'll have the choice of working in a variety of different industries and roles including conservation and environmental management, as an engineering geologist, a water engineer or an environmental consultant. You will also have essential employability skills that sectors like insurance, conservation, hazard planning, finance and education are looking for.

We encourage students to join us as URGE (Unlearning Racism in Geosciences) ambassadors through a programme of workshops; championing inclusive and welcoming work practises across the sector and improving environments in a way that benefits all those who are passionate about geoscientific study.

Past students have gone on to work at the Environment Agency, BAM Construction, Atkins, Welsh Water, LCM Environmental Services and Mott MacDonald.







Having recently graduated with a BSc in Environmental Geoscience from Cardiff University, for anyone with an interest in our planet and its processes I could not recommend this course more. I particularly liked the balance between theory and practical learning, with classroom learning, laboratory practicals and fieldwork, with one of my favourite memories being a two week fieldwork course in Dorset/Devon and Pembrokeshire.

Along with a large emphasis on fieldwork skills, there is also a lot of choice and diversity with both mandatory and optional modules, which for me is what made Cardiff University stand out. Cardiff itself is a very vibrant and diverse city, with endless places



to explore and things to do, and it truly feels like a second home!

**Courtney Garbutt,**  
**BSc Environmental Geoscience**





# Environmental Sustainability Science

UCAS Code: F651 (BSc)

Course structure: This is a three-year full-time degree

**Environmental sustainability is one of the biggest challenges and most important targets of the present. We need to take urgent action for our planet and develop strategies to work towards a more sustainable future.**

On our Environmental Sustainability Science course, you will explore three key topical environmental areas based around the Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development:

- clean water
- land degradation
- climate action

This distinctively focused course integrates fieldwork, skills and theory using problem-based learning based on real-world scenarios. Working across multiple disciplines, you will learn to critically analyse, discuss and debate environmental sustainability issues and offer practical solutions to complex global problems.

Our graduates develop highly sought-after skills and knowledge in major attention areas for researchers, governments and non-government organisations.

Due to the specialised nature of this degree, it is not possible to transfer onto one of our other Earth and Environmental Science programmes.

**Year 1:** 60 credits are contained in the core Grand Challenge (GC) module on Clean Water including an independent project. There are an additional 20 credits of core modules providing GC-related information and skills.

**Year 2:** 60 credits are contained in the core Grand Challenge (GC) module on Land Degradation and its impacts including an independent project.

**Year 3:** 60 credits are contained in the core Grand Challenge (GC) module on Climate Action which includes your dissertation.

For years 2 and 3, there is an additional core 20 credit module, with optional 40 credits available from a selection of specialist modules.

## Fieldwork opportunities

From impressive mountains in the north to a biodiverse tidal estuary in the south, we have a huge range of physical environments and processes to explore in Wales. We make the most of our location and take regular day trips along the coast and to national parks within Wales where you will learn key field skills.

As one of the UK's only universities providing accessible in-person field study, we can work with students to tailor field experiences so that they maximise their personal development. Get in touch with us to explore how we can support you to get the most out of fieldwork opportunities.

There will also be opportunities to complete overseas trips, in locations such as Spain, Greece and Morocco where water resource management, land degradation and changing climate combine to challenge environmental sustainability. The cost of compulsory field trips are included within your course fee.

## Careers and employability

Typical jobs for graduates include environmental and sustainability consultancy and regulation, conservation, science writing, national government policy, environmental charities, teaching, transport planning, environmental education and environmental health. This course also provides excellent training for postgraduate study and research.

Potential employers could include local government and organisations like the Environment Agency, BAM Construct UK, Airbus and Wales and West Utilities.

Students benefit from becoming ambassadors for our URGE (Unlearning Racism in Geosciences) curriculum (available as workshops at the School), so that they become more engaged, inclusive and self-aware candidates; improving and supporting the geosciences to be more welcoming of a broad range of talent and experience.



## Hear from Professor Adrian Chappell, lecturer on our Environmental Sustainability Science programme:

In the ESS programme we define and tackle real-world problems, from the United Nations Sustainable Development Goals including the Grand Challenges of Clean Water, Land Degradation and Climate Action to fieldwork sampling, measurement and detecting change.

These real-world problems develop an authentic form of motivation for students' work encouraging a deep engagement with the subject.

Students draw on knowledge from across environmental sustainability science representing the complex society in which students live. Working collaboratively, students learn from each other and resolve conflicts in views and understandings. This approach promotes self-motivation, independent learning and critical thinking which embeds key employability attributes in the curriculum and prepares students well for the world of work.







# Exploration Geology

UCAS Code: F625 (BSc), F626 (MSc), F627 (Year abroad)

Course structure: This is a three-year full-time degree, or four years with our Professional Placement/Year of Study Abroad

**Learn how to sustainably explore for Earth's natural resources on this unique degree, the only undergraduate course in the UK to focus on specialist training in resource exploration.**

People have been using Earth's natural resources like metals, minerals, oil and gas for centuries to build our towns and cities, power our homes, and to make the vehicles, devices and tools that our 21st Century society depends on. New resources are increasingly hard to find and require specialist skills and technology to locate and utilise responsibly. Our Exploration Geology course will appeal to anyone interested in unravelling Earth's mysteries whilst seeking out the essential resources that will maintain our society into the future.

You will learn how the Earth's processes have created the planet's natural resources and how to explore for them to meet future demand with care. Exploration geologists will be central to delivering a low carbon future by helping meet the surging demand for metals to supply the renewable energy industry that's needed to tackle climate change.

You don't need to have studied Geology already as we'll be starting all of our students from the ground up, cementing basic principles and a responsible mindset to bring everyone to the same level. Our degrees are accredited by the Geological Society, the professional body for geosciences in the UK.

We've worked with industry to design our course, so you graduate with the specialist skills needed to be a professional exploration geologist. These skills cover fieldwork (both on the surface and underground), experience of modern exploration software, critical analysis of data, and the confidence to make key decisions from limited information.

Cardiff University has been training mining engineers and geologists for over 100 years and you can become part of this ongoing story. You can choose between the three-year BSc degree, the four-year version of our BSc degree including a placement year, and the four-year MSc degree. Our Master's degree includes an additional fourth year of study where you get the chance to work on an exploration research project with an academic from the School in their research field.



The course includes current conventional resources, but also looks ahead to the likely new resources needs in the future.

**Dr Tim Jones,**  
Lecturer in Geosciences

You will develop advanced skills in research and gain experience of applying your findings in an industrial context, gaining lucrative, in-demand skills that will benefit you long into your future as a professional geologist. As well as shaping your data-driven and practical skills, our URGE (Unlearning Racism in Geosciences) workshops also benefit students, as our student democratise the workplaces of the future to be more welcoming and inclusive of people's skills, talents and myriad backgrounds.

## Fieldwork opportunities

With Wales' long-standing industrial heritage and rare geological unconformities within an hour of travel from Cardiff, we have an outstanding array of natural landscapes for us to explore nearby. We make the most of our location and incorporate a variety of trips into your degree study as we explore sites of interest across Wales. There will also be opportunities to undertake overseas trips; in the past we've been to Spain and Cyprus. While the costs of all the compulsory (including overseas) field trips are included within your course fee, a contribution is required if you take our optional overseas trip.

## Careers and employability

Our constant demand for mineral, construction materials and other natural resources means the knowledge and skills of an exploration geologist are in demand. With a degree in Exploration Geology you have a range of career options open to you and can apply for roles like an exploration geologist, a hydrogeologist, a mineralogist or an environmental consultant. The practical and business-focussed aspects of the degree mean that you will also have essential employability skills that sectors like sustainability science, insurance, finance, education and planning are looking for.

Some of our past students have gone on to work for SRK Consulting, 6 Alpha Associates, Terravision Exploration Ltd, Bibby Hydromap and the engineering consultancies SRK, Golder Associates and Royal HaskoningDHV. Many of our students that enjoyed time in industry as part of their dissertation project went on to work for the same organisation after graduation.



I realised that my true career aspirations lay within the renewables sector. I now work for an Integrated Service Provider supporting the offshore wind industry, and will shortly be completing postgraduate study in the area of Marine Renewable Energy.

**Sam Strivens,**  
Exploration Geology including  
a placement year or a year abroad,  
and the four-year MSc degree





88% of Cardiff's Geology students expressed satisfaction with the academic support on offer from our School.

National Student Survey 2023

84% of Geology's students are satisfied with their course overall, in an improvement on the national average.



I graduated from Cardiff studying exploration geology in 1992. Terradat now employ many graduates from Cardiff University and we've been supporting the University in terms of field demonstrations, office visits and the Terradat Prize for years.

This is just our way of giving back to the place that was our foundation.

**Nick Russell,**  
Terradat Geophysics co-founder,  
graduate employer and sponsor  
of the Terradat Prize





# Geology

UCAS Code: F603 (BSc), F604 (MSci), F607 (Year abroad)

Course structure: This is a three-year full-time degree, or four years with our Professional Placement/Year of Study Abroad

**Finding solutions to our planet's most immediate challenges requires accurate, wide-ranging understanding of the Earth's history and processes.**

How can we use what we know about past climates on Earth to understand the effects of climate change today? How can we use what we know about earthquakes and volcanoes to predict hazards and make sure people and buildings are safe in the future? These are just some of the challenges that we'll explore.

Geologists study the minerals and rocks that form the solid Earth, the processes that occur on and within our planet, and the evolution of life on its surface. On our Geology course you will explore Earth's fascinating history, internal systems and materials through a mix of inspiring lectures, hands-on practical work, frontier research and field trips in the UK and abroad across your three years. You'll discover how rocks and minerals are formed, how animals evolve over geological time, what causes earthquakes and volcanoes and how the science of Geology impacts on our lives today.

No previous Geology study is necessary, as we'll start everyone from the ground up in Year One. We've worked with industry to design our degree, so you graduate with the specialist skills needed to be a professional geologist and make an immediate impact in your career. These skills cover fieldwork, experience of data capture using Geographical Information Systems (GIS) software, critical analysis of data, and the confidence to make key decisions from limited information.

## Fieldwork opportunities

South Wales has a diverse geological history and there are lots of outstanding natural landscapes for us to explore and for you to develop your fieldwork skills, including rare geological unconformities on beautiful coastlines under an hour from the School. We make the most of our location and explore how geology impacts on the landscapes and the industry of the local region through regular day trips and longer residential trips. There will also be opportunities to go on overseas trips, in the past we've been to Spain and Cyprus. The cost of compulsory (including overseas) field trips are included within your course fees, a contribution is required for our optional overseas trip. We are adept at providing accessible fieldwork options to fit

students' individual requirements.

You can choose between the three-year BSc degree, our four-year BSc with a professional placement and the four-year MSci degree. Our degrees are accredited by the Geological Society, the professional body for geosciences in the UK.

Our Master's degree includes an additional fourth year of study where you work on an research project with an academic from the School in their research field. You will develop advanced skills in research and get experience of scientific writing and presentation at a professional level.

## Careers and employability

With a geology degree you can choose to work in a variety of different roles including an engineering geologist, a hydrogeologist, a mineralogist, and an environmental consultant. You will also have essential employability skills that sectors like insurance, finance, education and planning are looking for. As a supporter of the URGE (Unlearning Racism in Geosciences) curriculum of workshops, we encourage our students to learn to be inclusion ambassadors; to shape the geosciences as inclusive places to share knowledge, develop working practises and to democratise talent.

Our past students have gone on to work for top employers including British Geological Survey, the Environment Agency, Digirock, Boliden Mining, Network Rail, Balfour Beatty and engineering consultancy Royal HaskoningDHV.

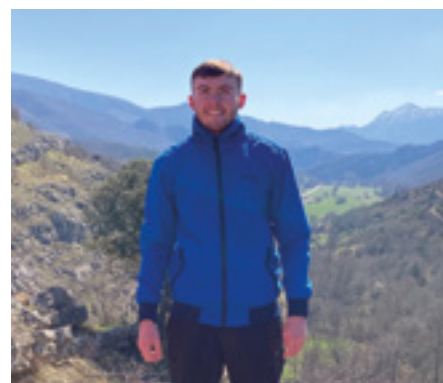


The Geology degree is broad based and includes subjects such as the formation of the Earth, volcanoes, fossils and minerals. It is a degree with many integrated transferable skills enabling further postgraduate studies or professional careers.

**Dr Tim Jones**  
Lecturer in Geology







Students gain professional workplace experience, greatly enhance their CVs and critically work on dynamic, relevant, data-rich projects that provide a 'real-world' dissertation topic.

**Wardell Armstrong, graduate employer**

Through my BSc Geology degree, I have enjoyed a variety of fieldwork trips where I learnt so many vital skills that employers are actively searching for. Through petroleum, geoenergy and basin studies I developed a passion for Geology in the context of the energy transition. This is an excellent sector to be in as Wales and the World strive for net-zero emissions in the coming decades.

**Steffan Wyn Evans,  
BSc Geology 2020-23**



# Marine Geography

UCAS Code: F845 (BSc), 1D78 (MSci), F848 (Year abroad)

Course structure: This is a three-year full-time degree, or four years with our Professional Placement/Year of Study Abroad

The ocean is arguably the last major frontier on Earth for exploration and discovery, with marine geographers instrumental in solving physical, hydrographical and managerial issues relating to the ocean and its coastlines.

The world's oceans and coasts are full of amazing habitats and wildlife, sustaining crucial industries including shipping, energy, agriculture and tourism. As a marine geographer you will have the skills and knowledge needed to keep our oceans healthy and make sure that the growth in marine industry and economy happens in a sustainable and inclusive manner.

As the UK's only Marine Geography degree, we share the science behind marine conservation and sustainability, and associated challenges. As part of this, you will examine the influence of climate change, increased coastal erosion and flooding, as well as the need to adapt to such coastal futures. Graduates leave with the skills to solve a range of complex real marine and coastal environmental problems and with experience of hands-on fieldwork and cutting-edge research with world-leading scientists and external professionals. Our previous students have completed placements in a range of topics including offshore surveying, ecosystem mapping and port environmental management.

Choose between our three-year BSc degree, the four-year version of our BSc degree including a placement year, a year abroad, or our four-year MSci degree. Our Master's degrees involve a fourth year of study where you work on a research project on an exciting Marine Geography topic with an academic from the School and their research team, developing and honing valuable advanced research skills.

## Fieldwork opportunities

South Wales has a rich and diverse marine environment including estuaries with large tidal ranges, islands thriving with wildlife and outstanding beaches along the Gower Peninsula which is only a short journey from the School. You will get involved in a range of activities like offshore surveying, water quality monitoring, ecological mapping and beach profiling.

You will get plenty of opportunity to develop your field and boat work skills with regular day trips and residential trips along the Glamorgan Heritage Coast and Gower, South Wales in the School's own marine vessel, the Guiding Light. There will also be an opportunity to go on an overseas fieldtrip with previous destinations including Malta, Jersey and Greece. The cost of our compulsory field trips in the UK and overseas is included within your course fee.

We're committed to making fieldwork as accessible and inclusive as possible, as we're one of the only UK universities providing in-person accessible field studies. We will work with our students to tailor the fieldwork experience to different accessibility requirements, maximising the benefit to your learning. We encourage students and staff to make the most of our URGE (Unlearning Racism in Geosciences) workshops, so that they leave with skills to improve the sector not only with data-driven skills, but to shape their future working environment to be inclusive and welcoming.



During my placement at Parc Natural, I examined the uses of the marine park protecting the Medes Islands. I was involved in a range of projects including coastal monitoring, sand dune restoration and research diving, which allowed me to witness much of the biology the islands had to offer, including barracudas, moray eels, amberjack tuna and eagle rays.”

**Destiny Newman,**  
Marine Geography Year abroad

96% overall  
satisfaction in the  
National Student  
Survey 2023.

95% of Marine  
Geography students  
were satisfied with  
the academic support  
on offer.

National Student Survey 2023







### Careers and employability

Keeping our oceans healthy is critical to our future. The skills and knowledge of marine geographers are needed to tackle current and future ocean challenges to not only make sure that important habitats and wildlife are protected but also to ensure that maritime industries like fishing, tourism, shipping and renewable energy are developed sustainably. You can choose to work in a variety of different industries and roles including conservation and marine management, as an environmental consultant or marine geospatial analyst. You will also have many skills that other sectors like insurance, conservation, shipping, finance, education and planning are looking for.

Some of our past students now work in the Hydrographic Office, Titan Environmental Surveys, the Environment Agency, Natural Resources Wales, Marine Conservation Trust, Welsh Government and the Marine Management Organisation as well as for large ports and marine conservation organisations around the world.



Engaging in fieldwork enhanced my scientific inquiry and critical thinking abilities, as I was exposed to real world challenges and had to learn to adapt my knowledge.

**Lauren Joslyn,**  
BSc Marine Geography



I absolutely adored the course. Do a placement if you can, they're absolutely brilliant and I would recommend the course to anyone and everyone!"

**Rachel Cox,**  
BSc Marine Geography



# Physical Geography

UCAS Code: F843 (BSc), F844 (MSci), F849 (Year abroad)

Course structure: This is a three-year full-time degree, or four years with our Professional Placement/Year of Study Abroad

**With the planet under increasing pressure from climate change, human populations are residing in ever more vulnerable locations. As a physical geographer, you'll use your knowledge, skills and understanding of the Earth's processes to find sustainable solutions to complex contemporary and future challenges.**

From climatic changes and natural hazards to shifting tectonic plates, our planet is constantly evolving and reshaping itself. This course will look at the science behind Earth's physical processes, including geomorphological processes and hydrology, so you'll better understand the immediate issues that we face as global citizens, helping you to make a positive impact into the future.

During your time on our Physical Geography course, you will discover how landscapes have evolved, the current processes, impacts and influences on our planet, and how we can predict changes in the future. You will hone skills in mapping, research, analysis and problem-solving using state-of-the-art field and laboratory equipment. Plus, you will utilise high-level, professional software applications to model future landscape changes. Graduates leave with the skills to solve a range of complex real-world problems related to the physical environment and with experience of hands-on fieldwork and cutting-edge research with world-leading scientists.

Choose between our three-year BSc degree, the four-year version of our

BSc degree including a placement year, a year of study abroad, or our four-year MSci degree. You will have the opportunity to complete a placement with organisations such as the Meteorological Office, engineering consultancies, and government agencies such as Natural Resources Wales.

Our master's degrees involve a fourth year of study where you work on a research project with a leading scientist from the School and their research staff. You will develop advanced skills in mapping, research, analysis and problem-solving, all whilst exploring a topic that reflects what you're passionate about.

## Fieldwork opportunities

Wales is a natural laboratory for geographers. From impressive mountains in the north to a biodiverse tidal estuary in the south, we have a huge range of physical environments and processes to explore. We make the most of our location and take regular day trips along the world-famous Gower coast and to Bannau Brycheiniog national park. You will complete a residential field course to a national park within Wales (either Pembrokeshire or Snowdonia) where you will learn key field skills including mapping and surveying techniques.

There will also be an opportunity to experience an overseas trip to a location such as Switzerland, Greece and Spain. The cost of our compulsory field trips are included within your course fee.



Cardiff Earth students adapt to operating in a professional environment with ease. They show good initiative when facing new challenges and ask for support when appropriate without extending beyond their capabilities. Our current intake are the 9th generation of the placement programme and I am determined to continue it into and beyond 10 generations.

## Network Rail



We are one of the only geoscientific universities committing to the provision of in-person accessible field trips, so students should feel free to get in touch to find out how we can support you to get the full benefit of fieldwork.

## Careers and employability

Physical geographers explore the evolution of Earth's surface and the science behind its physical processes. You can choose to work in a variety of different industries and roles in government, government agencies or environmental consultancies, including working as an environmental specialist or a geospatial analyst. You will also have employability skills that sectors like insurance, finance, communications, education and planning are looking for.

We encourage students and staff to become ambassadors for URGE (Unlearning Racism in Geosciences), so that we can make the geosciences an ideal place to everyone to work, to learn from, and to thrive together.

Some of our School's past students have gone on to work at the Environment Agency, Natural Resources Wales, local government, environmental consultancies and environmental charities.







# Bachelor of Science or Master of Science?

We offer Bachelor of Science (BSc) or Master's degree (MSci) programmes with a variety of options, but which is right for you?

## BSc

The Bachelor of Science is a three-year degree programme that gives you the opportunity to complete a professional placement between Year Two and Three.

- A three-year degree programme (four years if you enrol on a professional placement option)
- Broad range of careers open to you in the Earth and geographical sciences, and many other areas such as business, communications or teaching
- Perfect for students who prefer applied project work to a career as a research professional
- Our accredited degrees will provide a great and well-respected introduction to many Earth and environmental professions
- You have the opportunity to top-up your studies with our one-year vocational Master's degree in Applied Environmental Geology (MSc), Environmental Hazards (MSc), or Water in a Changing World (MSc)
- All our BSc programmes (except Environmental Sustainability Science) are also available as a four-year option where the third year is taken as a professional placement or a year of study abroad. Enrolment on these programmes occurs during year two and is subject to students achieving a reasonable baseline grade of 55% in your assessments.

You can work with our dedicated Placements Officer to find, apply for, and secure a suitable placement that will help you build work experience that will propel you towards your goals. Our previous students have spent time at Sharklab, the Environment Agency, notable ports, environmental consultancies, construction firms and large-scale utilities companies, often receiving offers of employment on graduation as recognition of their efforts.



## MSci

The Master of Science is a four-year degree programme that gives you the opportunity to explore your chosen subject area more than the equivalent three-year BSc programme. You will have the opportunity to undertake your own research project as part of this degree but will also be expected to achieve an average of over 60% in each year to remain on the MSci.

You can either apply directly for entry onto the MSci programme via UCAS or you can transfer onto an MSci once you've commenced your studies with us, giving you time to comfortably plan your career trajectory.

- A four-year degree programme
- Identical entry requirements to the BSc
- There are options in environmental modelling or business and research skills that provide an enhanced basis for entering professional research careers in Earth and geographical sciences
- There is increased flexibility to choose research topics and modules that match your interests and talents.
- You have an opportunity to work within our seven research groups

- There are more extensive opportunities for small group and individual tuition
- A higher level of education comparable with international first-degree qualification

Transfer from a BSc to an MSci is possible at the end of years one or two and requires a reasonable baseline achievement of 60% in your assessments. For those who may want to transfer from the MSci to the equivalent BSc, there is also the flexibility for you to change your programme at the end of years one and two.

You can also add a professional placement year on most of our courses (all except Environmental Sustainability Science), as well as a Year Abroad to broaden your horizons. You'll have a personal tutor who stays with you for the duration of your studies who can best advise you on how to incorporate all the potential experiences on offer. We'll ensure that you can maximise your time with us according to your individual passions.



**Our degree programmes**



# Supporting you throughout your studies

On top of providing exceptional research and learning facilities, we're dedicated to ensuring that your well-being is protected throughout your course.

There are multiple ports of call if you ever feel like you're struggling with issues ranging from your academic work to home life, issues with your accommodation, health or finances, or adjusting to your new independence.

## Personal tutors

We provide you with a personal tutor who is a member of academic staff tasked with aiding you in your educational journey throughout your time at Cardiff. This member of academic staff will be your first stop to discuss any issues you feel are affecting your ability to take a full and active role in student or academic life, as they check in with you across the year to see how you're progressing. You may reach out to discuss any worries you may be experiencing at any point in the term, not just when you have a personal tutorial scheduled.

## Student Mentors

There is the option to join our Student Mentorship programme; where you can speak to a student ambassador who is more advanced in their studies. These ambassadors are great people to talk to about things you'd rather discuss with a fellow student. These could be more personal worries about how they found the transition to university life or academic study, or just to signpost Cardiff hotspots to enjoy our vibrant social scene and nightlife.

## Academic support

There is support on offer to improve your academic skills through the University's Central learning team and library staff. If you'd like refreshers on ICT skills, maths, or introductions to writing for an academic audience or how to use referencing systems, just reach out for support.

## Earth Society

Our student-led society, is a great way to meet new people and have some fun. It can also help you break out of your comfort zone, and in some cases, even improve your future career prospects through involvement in their charitable, academic and industry-led events. Earth Society host events including an end of year summer ball, various field trips and regular socials.

## Dedicated advisors

If you're ever struggling and would like to speak to a dedicated advisor, the Centre for Student Life has experienced specialist staff who can advise professionally on money, welfare, mental health, housing, jobs, visas, just over the road from our Main Building location in Park Place. Our state-of-the-art Centre for Student Life building is also home to our award-winning Students Union.

## Industry Societies

Cardiff University Society of Economic Geologist's (SEG) Chapter is an active, student run, academic society that hosts regular talks by external speakers from industry and academia, plus lectures from members of the School. The society organises field trips to places of interest including mineral deposits and mines across Europe. Recently our students have been to Ireland, Sweden, Finland and Serbia.

We also have our own Equality, Diversity and Inclusion group within the School of Earth and Environmental Sciences, where you can bring any issues relating those areas, as well as help us to improve how we include and celebrate all our students and staff.





# Further study at Cardiff

Open up a whole new world of opportunity with our highly rated master's degrees.

Taking on master's degree study is an excellent way to gain more specialist knowledge to fit a range of scientific roles and interests, as well as allow you to grow your individual research skills at a higher level.

We have three options for further study at Cardiff at master's level, with options for doctoral degrees across a range of specialisms. Many of our students remain with us for MSc study, and our students have reported that graduate employers have been impressed with the accuracy and immediacy of the knowledge taught on each of our programmes.

## Applied Environmental Geology MSc

Running for over 25 years, the enduring popularity and status of our MSc in Applied Environmental Geology means we have trained over 700 postgraduate geologists, who are now working in industry and government agencies all over the world, as well as attracting a diverse international staff of academics to contribute their expertise to your progress.

The MSc in Applied Environmental Geology is vocationally and practically oriented, developing a range of applicable and lucrative skills required for the geo-environmental, geotechnical, conservation, consultancy and regulatory industries. Cardiff University is set amongst the countryside and topology of South Wales which provides ease of access to highly relevant geo-environmental and geotechnical locations, bringing your classroom studies vividly to life.

The programme includes a five-month individual applied dissertation project, which typically involves elements of geotechnics, ground contamination and environmental assessment. It also includes compulsory fieldwork to maximise your transferable skills, which previous students have undertaken in locations across the globe.

This programme is accredited by the Geological Society of London, as well as fully integrated with the professional development (CPD) lecture programme of the Southern Wales Group of the Geological Society of London. Successful completion of this postgraduate degree can be used in credit towards gaining the professional Chartered Geologist qualification.



I'm currently working at Brownfield Solutions Ltd as a project engineer. I enjoyed learning and building my geotechnical and geoenvironmental experience. I'm looking forward to one day having my own company back home.

**Chigozie Orafu,**  
Applied Environmental  
Geology MSc



I just did the Applied Environmental Geology MSc and we looked at things like contamination, rocks, and how to apply geology in a modern-day industrial setting. It was awesome, six months of intense learning and then we did six months of dissertation. The teachers were great though and I got a job straight off the course. What more can you want?

**Daniel Kaye,**  
Applied Environmental  
Geology MSc

This highly successful university/company relationship is the key to providing 'industry ready postgraduates', which is the Masters programme motto.

**Wardell Armstrong, graduate employer**



## Water in a Changing World MSc

Directly addressing immediate challenges to one of our most precious resources, our MSc in Water in a Changing World draws on interdisciplinary knowledge to provide a broad outlook within the context of current realities and future projections of climate change.

You will gain up-to-date knowledge and skills you'll need to forecast, mitigate and solve challenging water problems from an informed perspective.

Exploring a wide range of disciplines such as hydrology, climate science, freshwater ecology, economics, social science, and hazard and risk analysis, our graduates emerge able to hit the ground running in a wide array of sectors, using the applicable knowledge they've gained to make a swift and beneficial impact.

"The teaching has been great led by a good team of lecturers, with plenty of time to ask questions to build your understanding. We have access to the MSc library which has been really beneficial for me, and I've enjoyed some discussions with my fellow water students! It's led directly to my successful application for a job in the water sector.

My future employer, Binneys RSK for a role as a flooding consultant, were really impressed with the knowledge I had in the interview, with current sector knowledge gaps being studied here right now. The knowledge, the content and the presentation opportunities across the course really does help in your job interviews and I have nothing but the



course to thank for helping me securing my role.

**Carwyn Sweeney,**  
**Water in A Changing World MSc**



## Environmental Hazards MSc

Each day, our global populace faces hazards posed by our environment, often with devastating consequences that have lasting effects on citizens and on the landscape. We've designed our MSc in Environmental Hazards to provide an advanced understanding of environmental hazards and technical expertise in risk assessment, with a focus on the methods needed to analyse past hazards and forecast future events.

The course will help you to develop crucial skills in numerical and statistical modelling, remote sensing, fieldwork, and data analysis. There will be plenty of opportunities to gain hands-on experience using state-of-the-art field and laboratory equipment and professional software. You will use the latest modelling methods using remote sensing data from satellites such as CubeSat constellations and Sentinel, which are used to image the surface of the Earth.

With this MSc, we're building the expertise and mindset to tackle environmental challenges long into the future, which starts right here at Cardiff.



"The teaching has been excellent, and we are really supported to have discussions in class. You feel like what you're contributing is valued. I would like to take this knowledge and work on problem solving for future hazard situations so we can react better to issues caused by hazards and climate change in the future, and I think this course prepares you really well for that.

**Dania El-Khalif,**  
**Environmental Hazards MSc**



# Fieldwork opportunities

Bringing your field of knowledge into the light of day.

Fieldwork is often the high point of study for any budding geoscience or environmental professional. You can look no further than Cardiff to provide a vast array of astonishing locations. With areas of outstanding natural beauty nearby on the Gower peninsula, Bannau Brycheiniog national park within an hour of the city, alongside contrasting countryside and post-industrial landscapes to explore, Wales is a dream come true for those interested in ancient and changing environments.

There will be multiple day long fieldtrips for every programme over three years, making the most of Cardiff's exceptional local sites of interest, as well as boat-based fieldwork for Marine Geography students in the School's own vessel.

You'll also have the opportunity on your individual programme to make the most of a residential fieldtrip to exciting sites of environmental interest across North and South Wales, England, with previous overseas destinations varying across degrees to include Cyprus, Northern Spain, Switzerland and upcoming visits to Morocco for Environmental



Whilst all my flatmates were sat in lectures, I was out exploring Cardiff and the surrounding area.

**Philippa Smith,**  
Year abroad,  
Environmental Geoscience



Sustainability Science students. Costs associated with our compulsory fieldtrips for accommodation and travel are included within your course fee. There is an optional overseas fieldtrip in Year 3 for Geoscience programmes for which students pay a contribution.

The School maintains its own PPE kit store so that that students experiencing financial hardship can loan essential items to ensure their participation. No Cardiff student should be put off taking an active part in field-based study due to financial hardship.

Our excellence in providing quality fieldwork for decades means we can also adapt the fieldwork experience to the needs

of our students. We are one of the UK's only geoscience universities providing accessible in-person fieldwork trips and experiences.

We have provided multi-layered virtual field trips during Year 1 as well as during religious holidays to observant students, accommodated personal assistants to attend fieldwork days, alongside developed adaptations to mobility aids for physically disabled students. If you are a student who requires reasonable adjustments to participate, please get in touch and we will do our best to ensure you receive the full benefit of the fieldwork experience.







# Take a Year Abroad

Enjoy a Year Abroad as part of your degree.

Studying abroad is an excellent opportunity to draw new experiences and enjoy an exciting social life.

EARTH students have been travelling abroad as part of our Year of Studies Abroad (YOSA) for more than 10 years and have benefited from new academic, cultural, and career opportunities.



## Hear from Dr Tiago Alves, our Year Abroad coordinator, for his views on why taking a Year Abroad could be the making of your degree.

The number of graduates looking to study in one of our overseas partners has been on the rise, and many of our YOSA alumni have pursued work placements, postgraduate courses, or even a job near their overseas destinations. For them, it is clear how their YOSA experience has improved their professional and academic outlooks.

Students undertaking a 1-year YOSA usually stress the aspects below as the most positive:

### 1. A YOSA is a one-in-a-lifetime opportunity to see the world

Exams, dissertations, assignments, networking events will all make for a busy schedule, but YOSA students will have enough free time to explore in and around your new city and immerse yourself in a different part of the world. Students often travel within their YOSA country but also abroad.

EARTH exchange partners include the following universities and destinations:

- Simon Fraser University (Canada)
- HKUST (Hong Kong)
- Universities of Western Australia, Tasmania and Wollongong (Australia)
- Universities of Miami and Wyoming (USA)
- Rutgers University (USA)
- West Virginia University (USA)
- Universities of Gothenburg and Stockholm (Sweden)
- Bremen University (Germany)

### 2. YOSA students develop a better understanding of other cultures – and different ways of learning

The YOSA programme allows students to create new links in a world that is more connected than ever, gathering an open-minded appreciation and understanding of other cultures. Living and studying abroad

enriches one understanding of different people, customs and, more importantly, will allow students to gain a broader context for understanding today's most pressing global issues.

In other words, learning in an international environment will challenge students' assumptions and introduces them to new ways of thinking about the world.

### 3. YOSA students are able to expand their network beyond the UK

Meeting people from other parts of the world is one of the most common reasons for studying abroad. YOSA students will collaborate and learn with students from all over the world. Students will connect with an interesting and diverse new peer group, therefore building up a future professional network spanning the globe. They often build a good, fruitful relationship with professors and mentors, which may be the basis for future postgraduate and professional opportunities.

Staff expertise, connections, and mentorship skills in EARTH's Exchange Partners can prove a wonderful asset throughout our students YOSA programme and beyond that. Along with building rewarding personal friendships, the connections one makes are the most valuable asset one can have in their professional life.







Students interested in taking a Year Abroad can add this to their programme once their studies are underway at Cardiff. You may select it as your UCAS option, or opt in once you've commenced your studies, giving you ample time to consider your pathway.

The Year Abroad is taken in your third year, as you return to Cardiff to complete third year studies as a fourth-year student. Students who would like to pursue a year abroad just need to achieve a reasonable baseline grade of 60% overall in your assessments.



Honestly, I wouldn't have changed it for a moment, having adventures that will last with me for a lifetime such as being in the surreal midnight sun in the Arctic Circle to swimming in the fjords of Norway to witnessing the Northern Lights 3 times.

It also provided the chance to have an extra year studying and therefore increasing my knowledge of wide variety of geological topics that I would not have covered during my time in Cardiff. But also the chance to grow many "soft skills" from living and experiencing another culture for a year.

**Sion Way,**  
Geology, YOSA



The University of Wollongong has excellent facilities and offered a wide range of opportunities to help add to my experience. Academically I enjoyed all my modules, and the teaching staff were great, their expertise, dedication and support made my transition very easy and stress free.

Reflecting on my time abroad I am so pleased that I decided to take up the opportunity. I have made lifelong friends who I plan to visit in the future. I think a year abroad is a great way to push yourself out of your comfort zone and adapt and develop new and existing skills, overall making you more employable.

**Ben Morris,**  
Geology





# Our Professional Placement Year

Graduate employers often name sector awareness as the number one attribute they look for in applicants. The best way to demonstrate sector awareness is through relevant work experience, which can seem a daunting prospect when you're just beginning your scientific career.

Cardiff students studying for a range of Earth and Environmental Sciences degrees can choose to do a full placement year in industry, both at home or overseas, gaining valuable work experience before they graduate. Students can opt into the four-year placement version of their programme once they've arrived and have settled into their course, with just one requirement of achieving a reasonable baseline grade of 55% in their assessments. You would then complete your placement year in your third year of study, before returning to Cardiff to do your final-year studies as a fourth-year student.

As an Earth and Environmental Sciences student, you'll have unique access to a dedicated Placements Officer whose role it is to help you get placement-ready. They can support you with how to find roles, give tips on making your application stand out and managing stress at interviews, as well as share opportunities and networking events across the academic year.

You'll also have the option of doing shorter placements to build industry-ready skills and confidence without dedicating a full year of study, such as over your summer break.

Due to its specialist nature, the full placement year is not currently an option for Environmental Sustainability Science students, however you can still reach out to find shorter experiences and opportunities to fit around your studies.

## Meet Lisa Gallone, our dedicated Placements Officer here, and read about the incredible things you can do with a dedicated placement.

A full year of work experience does wonders for our students' confidence and employability, making them industry-ready well in advance of Graduation Day.

As the School's Placements Officer I support our students to find the opportunity that's right for them. Our undergraduates can spend a year with a commercial company, a Government organisation or NGO, or a research institute.

There are placements local to Cardiff or further afield for those who want an international experience. In recent years our students have spent their placement year in Greece, Malta, Costa Rica, Belize, Borneo and Kazakhstan, while some of our Exploration Geology students have undertaken summer placements in Canada and Australia. Many placement students are paid a salary but if this isn't the case for international trips, our Global Opportunities team runs a grant scheme to offer some financial support.

Whatever the placement, I make sure our students know how to present their CV, write a great cover letter and prepare for interview. We also focus on how to deal with rejection letters and find the resilience to keep going. These are all skills they'll need whatever career path they choose to follow.

Together with colleagues, I organise inhouse events which bring alumni and employers to campus so that our students get a feel for the breadth of opportunities available to them. These events give our students a chance to explore options and make informed decisions about possible career choices.

Students won't find the Professional Placement Year course via UCAS but it's easy to switch to the four-year option at any time.



**Lisa Gallone, Placements Officer**

Cardiff students stand out for us by having the right skills, purpose and attitude to learn and succeed and we hope to be hosting students for the foreseeable future.

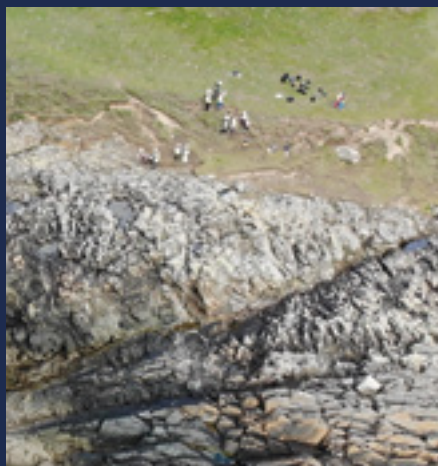
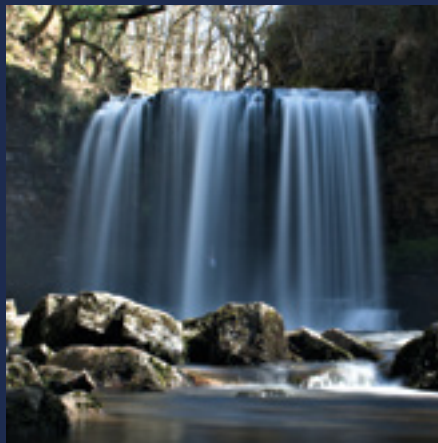
**Deputy Group Harbour Master (Hydrographic and Dredging),  
Peel Ports Group**





My placement allowed me to collaborate with respected professionals, fostering mentorship and networking opportunities that can be invaluable for my future prospects.

**Lauren Joslyn,  
BSc Marine Geography**



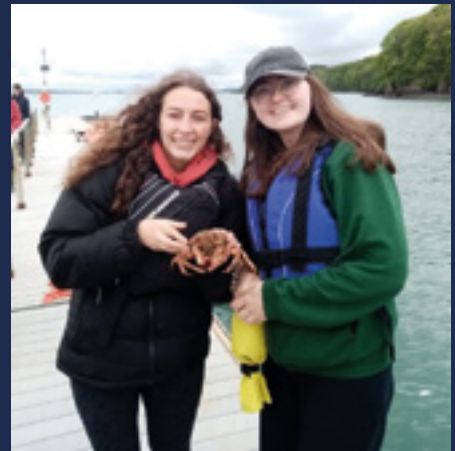
My goal for completing this placement was to find out what opportunities there are for me after I complete my degree. I have gained so much insight and I have really enjoyed my year here.

**Lottie Olney, Lottie spent her year  
working with the Port of Dover**

Our experience of taking on Cardiff Uni placement students has been very positive! We believe the high calibre quality of student we tend to encounter (via during both the interview process and the work experience) is truly reflective of the skills and knowledge they gain whilst at Cardiff University.

Based on the various placements and employer panel events we have attended at Cardiff University, we feel that Cardiff Earth students are especially enthusiastic and driven. We feel that the Cardiff Earth students contribute effectively, learn from others and ultimately impress during their placement, usually resulting in a conditional offer of employment at the end of the placement duration.

**Wardell Armstrong, placement employer**



I benefited a great deal from my placement year and I can see I am a changed person from when I started. I now have a strong set of skills which I can put into practice in my final year of university and in my future employment.

**Katie spent her placement year  
with the Field Studies Council**



My placement allowed me to vastly expand my academic and practical knowledge along with allowing me to develop new skills, gain useful qualifications and make lifelong connections. My time at Dover Port has already helped me unlock future opportunities.

**Rachel Cox,  
BSc Marine Geography  
with a Placement Year,  
spent her year as an Environment  
Assistant at the Port of Dover**







# Entry Requirements

You can apply for all of our programmes online via the UCAS website at [www.ucas.ac.uk/apply](http://www.ucas.ac.uk/apply)

## Open Days

The University runs Open Days throughout the year, giving anyone considering applying to Cardiff the chance to find out more about life at university and see what we offer. If you apply and are offered a place, you will be invited to meet us at our specially-devised School Open Days. When making that important decision, we strongly encourage you to join us. Not only will you have the opportunity to hear more about our degrees, you will also meet staff, have the chance to talk to current students and to get the feel for studying in Wales' cosmopolitan capital city.

## Deferred entry

Application is made through UCAS in the usual way, although the UCAS application must show the deferred year of entry.



## Our entry requirements are the same across all our programmes

All applicants offering all types of qualification must have at least 1 STEM subject (Chemistry, Physics, Maths, Geology, Biology, Geography, Computer Science, ICT and Environmental Science) in their highest-level entry qualifications, with the same requirements for BSc and MSci.

All applicants normally require GCSE Mathematics grade C/grade 4 and GCSE English grade C/grade 4, or equivalents.

For overseas students whose first language is not English, the minimum requirement is at least 6.5 in the British Council IELTS Exam or equivalent with at least 5.5 in each component, i.e., speaking, reading, writing and listening.

The Earth & Environmental Sciences Director of Recruitment and Admissions can provide further information about entry requirements for qualifications offered from other countries within the EU.

The College of Physical Sciences and Engineering International Office can provide further information about entry requirements for qualifications offered from countries beyond the EU.

Qualification	Degree Programme	Entry Requirement
GCE A levels & Scottish Advanced Highers	All degree programmes	ABB if taking one science and BBB if taking two sciences (from the STEM subjects above).
International Baccalaureate (min. 5 points in English)	All degree programmes	32-31 overall or 665 in 3 HL subjects (with 1 HL science subject) or 31-30 overall or 665-655 in 3 HL subjects (with 2 HL science subjects).
Welsh Baccalaureate	All degree programmes	ABB if presenting one science and BBB if presenting two sciences (from the STEM subjects above) WBQ will be accepted in lieu of one A level excluding the required science A-level(s).
Access to HE Diploma	All degree programmes	60 credits, including at least 45 at level 3 in a science or maths based QAA-recognised Access to HE Diploma with a minimum of 15 credits at Distinction and 15 credits at Merit.





## How to find us

### Key



School of Earth and Environmental Sciences



University and NHS buildings



Student residences





## Important Legal Information

The contents of this brochure relate to the Entry 2024 admissions cycle and are correct at the time of going to press in September 2024. However, there is a lengthy period of time between printing this brochure and applications being made to, and processed by us, so please check our website at: **[www.cardiff.ac.uk](http://www.cardiff.ac.uk)** before making an application in case there are any changes to the course you are interested in or to other facilities and services described here. Where there is a difference between the contents of this brochure and our website, the contents of the website take precedence and represent the basis on which we intend to deliver our services to you.

Your degree: Students admitted to Cardiff University study for a Cardiff University degree.



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The printers are also accredited to ISO14001, the internationally recognised environmental standard.

Mae'r ddogfen hon hefyd ar gael yn Gymraeg. This document is also available in Welsh.

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This prospectus can be made available in alternative formats, including large print (text), Braille and on audio tape/CD.

To request an alternative format please contact Laura Roberts:

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Email: **[RobertsL9@cardiff.ac.uk](mailto:RobertsL9@cardiff.ac.uk)**



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To find out more about the  
School of Earth and Environmental  
Sciences please visit our website:  
[www.cardiff.ac.uk/earth-environmental-sciences](http://www.cardiff.ac.uk/earth-environmental-sciences)

## Contact us

Tel: **029 2087 4830**

Email: [enquiry@cardiff.ac.uk](mailto:enquiry@cardiff.ac.uk)

### School of Earth and Environmental Sciences

Cardiff University  
Main Building  
Cardiff CF10 3AT

## Stay in touch



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## Student life

Got questions about student life?  
Get them answered at:

[www.cardiff.ac.uk/  
studentbloggers](http://www.cardiff.ac.uk/studentbloggers)

Want to know more about life at  
Cardiff University? Our student  
bloggers are recording their  
experiences and are happy to  
answer your questions.

Our student bloggers are real  
students studying on a range of  
courses. They are here to answer  
any questions you have about life at  
Cardiff University. What's a typical  
day like? What clubs and societies  
are there? Is Cardiff's music scene  
any good? It can be almost anything.

Mae'r ddogfen hon hefyd ar gael yn Gymraeg.  
This document is also available in Welsh.

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