# BHASVIC

# Guide to Higher Education & Employability 23-24

Geography, Geology & Environmental Science

> Agriculture, Forestry, Marine & Ocean Sciences

What to ask on a geography or environmental science open day	.2
What to ask on a geology open day	.3
Agriculture	.4
Environmental science	.7
Forestry	.9
Geography	16
Geology	22
Marine & Ocean Sciences	25
BHASVIC Higher Education Information	28

Thinking of studying for a degree in geography or environmental science? Here are some questions you could ask tutors and students when you're at a university open day.

#### About the course

- What ranges of modules are available to me?
- Can I pick modules outside of my subject?
- What skills will I learn on this course? E.g. research methods, referencing, drawing graphs...
- Are there any guest lecturers or speakers who come to the university?
- Do I need maths or statistics?

#### **Equipment and facilities**

- What books are necessary for me to buy?
- How much reading is there each week?
- Are resources and reading material available to use online?
- Do I need to read anything before I start the course?
- Work experience and field trips

#### Are there any field trips?

- Where will they be is there a choice?
- How much does a field trip cost and will I have help with this?
- What assignments are set during a field trip, and do these count towards my degree mark?
- Do I have to organise placements or work experience during my summer breaks from university? Will I have help from the uni to do this?

#### Assessments

- What is the split between exams / coursework / group projects?
- Do I need to do a presentation on this course?
- Do I need to complete a dissertation or research-based project?
- How do I decide on a dissertation subject?
- Can I move on to a related Masters or PhD after I finish my course? Is there funding for me to do this?

Thinking of studying geology? Want to know what's involved? Use our list of open day questions to find out whether the course is right for you.

#### About the course

- Are my teachers also practitioners still work in industry?
- Do I need any prior experience in this area before I start the course?
- Where will be learning in lectures, seminars or in the lab?

#### Facilities and equipment

- What books/equipment is necessary for me to buy?
- How much time will I need to spend in the library?
- How much time in the labs?
- Placements and work experience
- Are there any industrial placements/field trips?
- Is there a chance for me to study abroad?

#### Assessment

- What is the split between exam/coursework/Group works/presentations?
- Do I need to complete a dissertation/ research based project?
- What is the weighting for each year of the course?

#### Graduate prospects

- How can I make the most out of this course?
- What have graduates on this course gone on to do?

# Agriculture

Agriculture combines studying natural and life sciences with economics and business management. You will learn how to maximise crop and animal production and how to balance this with environmental awareness, as well as business skills to run a farm. This course includes gaining practical skills on university-based farms and possibly out on placement. Possible careers after this degree include farm management, animal and crop research and advisory services, and overseas development work.

- BSC
- PRACTICAL PLACEMENTS
- TIME IN LABS
- PRACTICAL WORK
- AGRI-BUSINESS
- LAND MANAGEMENT
- ENVIRONMENTAL
- CROP SCIENCE
- BIOTECHNOLOGY

#### **Example course modules**

- Crop production
- Soil and nutrient management
- Principles of livestock production
- Farm mechanisation
- Garden design in practice
- Equine science
- Soft landscape design
- The business of food
- Green space management
- Survey planning and construction

#### Teaching hours / week

The time you'll spend in lectures and seminars each week will vary from university to university, so use this as a guide.



#### League tables for this subject

The Guardian The Complete University Guide The Times

Studying agriculture allows students to go into a wide range of different jobs. If you have an interest of biology, I would choose this course.

#### 1st year, University of Nottingham

We have around 16 hours of contact time a week. The content is not too challenging in the first year, as you need to all get to the same level pretty quickly. We have some practicals and report-type coursework and exams. There are lots of labs and farm enterprises to visit and use.

#### 1st year, Harper Adams University

The course is really good, with good teaching hours and contact with staff. It is taught through a mixture of lectures and field trips which allows theory to be put into practice. The course covers lots of topics and is fairly challenging, but interesting at the same time. It is assessed through a mixture of exams and coursework. The department has its own facilities and uses the outdoors a lot.

#### 1st year, Aberystwyth University

#### A-levels (or equivalent) usually required

• At least one from biology, chemistry or physics

#### Useful to have

- Environmental science
- geography
- Business studies

#### **Application checklist**

Here's a guide to what to expect from the application process - also check individual university entry requirements, as these may differ.

- January application
- Personal statement

#### Career prospects

About 70% of the UK's land area is given over to agriculture, so this is a subject representing an important part of the country's economy. Typical starting jobs for graduates in agriculture include agricultural science, farming and farm management, but also, less obviously, surveying, estates and auction work, heritage and conservation. Jobs in sport are also popular with this group. Jobs for agriculture graduates are often in rural areas. In 2012, the south of England, particularly Essex, Kent, Gloucestershire and Devon, were the most common regions in which graduates of the subject started their careers.

#### **Transferable skills**

Teamwork, Technical ability, Problem solving, Social Skills, Organisation, Numeracy, Communication, Attention to detail, Administration, Analytics, Discipline

- Agricultural scientist
- Farm manager
- Estates officer

#### Other real-life job examples

- Agricultural surveyor
- Arboricultural manager
- Conservation worker

#### What employers like about this subject

A degree in agriculture or agricultural management will provide you with subject-specific skills including an understanding of the global, regional and local contexts of agriculture; legal and economic issues in agriculture; sustainability and environmental impact and the principles of operating an agricultural business. You will also gain useful transferable skills in numeracy, communication, IT, team-working, problem-solving and independence and self-motivation. Farming is the most common industry of employment for agriculture graduates, but they also go to work in areas including land and property management, forestry and the manufacture of farm equipment and machinery.

#### Sources & Links

https://www.nottingham.ac.uk/ugstudy/course/Agricultural-and-Crop-Science-BSc

# **Environmental science**

Looking after our planet for future generations is of prime importance and environmental science graduates gain knowledge and skills to address issues such as climate change, conserving biodiversity, sustainable development, dealing with water and air pollution and human population growth. If you enjoy science or geography and have an interest in environmental or conservation issues, this type of course could be for you.

Example degrees: Conservation, Marine Conservation, Geology, International Disaster Management, Ocean Science

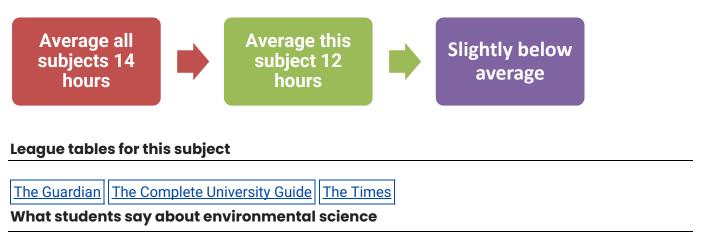
- BSC
- PRACTICAL PLACEMENTS
- TIME IN LABS
- TIME ABROAD
- RESEARCH
- COURSEWORK-INTENSIVE
- PRACTICAL WORK
- FIELD TRIPS
- CONSERVATION
- GEOGRAPHY

#### **Example course modules**

- Geographical skills
- Practising environmental science
- Rocks, minerals and fossils
- Postglacial environments
- Climatic change
- Scientific concepts and scientific modelling
- Biodiversity conservation
- Ecology: terrestrial and water
- Environmental pollution and management
- Natural hazards

#### Teaching hours / week

The time you'll spend in lectures and seminars each week will vary from university to university, so use this as a guide.



Coming from a non-scientific background holding only geography as a science-classed A-level, the environmental science course was challenging in some modules, such as chemistry and maths. However, they do not expect you to have A-level maths and cover off the basics. Extra help is offered if needed which is great. First year was designed to bring everyone to the same level through group work, such as experiments and work on the field.

#### 2nd year, University of East Anglia UEA

I usually have about 14-15 hours of teaching a week, including a two hour lecture for each of my six modules, and then weekly workshops and practicals ranging from an hour to two. The content of the course depends largely on the choice of optional modules that you select prior to the academic year, and this ultimately dictates your degree pathway. I find my course both interesting and challenging. I think it is important to do a course that you enjoy, as when you are particularly struggling with a piece of work, it is easier to motivate yourself if you have a passion for what you're doing.

#### 2nd year, University of Portsmouth

I study environmental geoscience. My course has quite a lot of contact/teaching hours - around 18 a week. This can be quite a lot, but comparing it to my friend who only has two a week, it's better than sitting at home and being bored! The course content is very interesting and I have learnt an awful lot this year and even remember most of it. As an environmental geoscientist, I did find there was rather too much geology, but by the end of the year I realised it wasn't that bad and there's no more geology in the second year.

#### 1st year, Cardiff University

#### A-levels (or equivalent) usually required

• Choose two from biology, chemistry, geography, maths and physics

#### Useful to have

- Chemistry
- Biology
- Physics
- Mathematics

#### **Application checklist**

- January application
- Personal statement

#### Top 10 Universities for Environmental Science - Complete University Guide 2021

- Cambridge, Oxford, Durham, Glasgow, St Andrews
- Lancaster, Loughborough, Sussex, Royal Holloway all very high student satisfaction scores
- LSE, Exeter, York, Liverpool Hope all with top graduate prospects

#### Employability

This is also one of those subjects where graduates don't usually go to London to work, so if you want to work in East Anglia or the South West – or overseas – this might be a good subject. Graduates tend to get jobs in the environment, in surveying and as lab technicians, but, like a lot of other subjects, if you want a job in research, start planning to take a doctorate. A small number become oceanographers and meteorologists.

Sought-after transferable skills developed by environmental science students include numeracy, communication, data handling, team-working and problem-solving skills. These are in demand from many employers including government departments and regulators, banks, universities, consultancies and the water industry.

#### What employers like about this subject

A degree in environmental science will give you a range of subject-specific skills as well as knowledge of current environmental science principles and how to conduct effective fieldwork. Students develop skills in statistical analysis and modelling approaches to the study of sustainable industry. You will also gain an understanding of the way that humans and the environment act upon one another. Sought-after transferable skills developed by environmental science students include numeracy, communication, data handling, team-working and problem-solving skills. These are in demand from many employers including government departments and regulators, banks, universities, consultancies and the water industry.

#### **Transferable skills**

Teamwork, Technical ability, Problem solving, Social Skills, Organisation, Numeracy, Communication, Attention to detail, Administration, Analytics, Discipline

#### Example careers

- Environmental education officer
- Environmental engineer
- Environmental manager
- Environmental health practitioner

#### Other real-life examples

- Estates manager
- Landscape architect
- Toxicologist
- Transport planner

#### Local market information

#### Brighton and Hove 20 Year Strategy

A report in the Argus states there are 15,840 businesses in Brighton and Hove and that business grew by 20% between 2012 and 2017. The new strategy for the next 20 years will focus on a low carbon economy and there are plans to build on the strength of sectors which are strong in the region such as the digital, 'green technology' sector, life sciences, higher education and tourism.

#### Personal statement advice: environmental science

# Passionate, concerned, or curious about environmental issues? Make sure you demonstrate this in your environmental science personal statement...

Add into the mix something about yourself and your achievements or experience, and you should have a personal statement that fits the bill...

Show your enthusiasm for the subject.

Tutors like to see personal statements where your enthusiasm for the subject and your own voice come across in an interesting and spontaneous way.

Try and view the statement as a way to introduce yourself and establish a personal relationship with the universities you're applying to, not just as a way of 'selling yourself'. Remember, provided you are a suitable applicant, then some, if not all the unis you apply to, will invite you to an applicants' open day, which often includes an informal, friendly interview where your personal statement will be discussed.

There's a subtle balance to be struck here. Your personal statement needs to be well structured, carefully written, grammatically correct, and should avoid sounding too quirky. But at the same time it should also retain a personal touch. What turned you on to environmental science in the first place,' and what does that also reveal about you as a person and what makes you tick?

'Write about yourself in your own way! When it comes to environmental science, include a sentence or two to outline why you are interested in the environment, whether it was a TV series, a holiday, a college tutor, a relative, friend or something else that inspired you. If we have an idea of where your interests come from, university staff can give you some ideas about where an environmental science degree might lead to and how you might progress into a career.' Dr Pete Shaw | Environmental Science Admissions Tutor – University Of Southampton

Like many others, environmental science divides into pathways which means you can specialise in topics that interest you while still gaining a broad overview. So, it's good to be clear in your personal statement about where your environmental interests lie.

#### Say something about your scientific interests

Reflecting on your scientific interests would be of interest too because, as Dr Shaw says: 'There are not usually specific subjects needed for environmental science degrees. Many universities ask for at least two A level sciences, but few specify which sciences, and other qualifications may be suitable as long as there is enough science content'. So with applicants coming from a variety of academic backgrounds, it will be of interest to admissions tutors to find out a bit more about your scientific interests.

#### More for your environmental science statement

More about you: tutors also want to hear more about you as a person. As Dr Shaw puts it, 'Do include something about your extracurricular interests too. It's good to see what you get up to in your spare time'. Sure, universities want to recruit the best students they can, but it's equally important to them that you also make the right choice.

Subject knowledge: Bournemouth University wants to know what it is that appeals to you about the 'interdisciplinary nature of environmental science' or the mixture of 'private study and field-based practical skills' involved in the course.

How your current studies relate: Queen Mary, University of London suggests writing about your current studies and the skills you've developed, explaining what you gained from any relevant experience or showing your understanding of one or two topical issues.

Environmental engagement: you should also evidence 'how you relate with the environmental problems of our times' or your 'enthusiasm for investigating complex environmental systems', according to Bournemouth.

What you can offer: Queen Mary wants more about any skills, interests or achievements you can bring to both the degree and the broader life of the university itself, 'something we cannot get just from your qualifications or your reference'.

https://web.ucas.com/ps\_environmental\_science

#### Other routes

#### Degree apprenticeships (Levels 5 – 7)

- Environmental practitioner (degree)
- Ecologist (degree)

#### Sources & Links

Visit the websites of the following professional bodies to find out more about courses and careers in agriculture and related sciences.

#### Lantra

Chartered Institute of Ecology and Environmental Management (CIEEM)

https://www.unitasterdays.com/on-demand.aspx

https://uwtsd.ac.uk/visitus/online-taster-sessions---environmental-conservation/

The Chartered Institute of Ecology and Environmental Management (CIEEM) https://www.cieem.net/

Institute of Environmental Management (IEMA) https://www.iema.net/

Prospects <u>https://www.prospects.ac.uk/careers-advice/what-can-i-do-with-my-degree/environmental-science</u>

https://www.prospects.ac.uk/jobs-and-work-experience/job-sectors/environment-andagriculture/overview-of-the-uks-environmental-sector

Future learn short course https://www.futurelearn.com/subjects/nature-and-environment-courses

https://www.brighton.ac.uk/studying-here/visit-us/open-days/ug-campus-open-days/2020/online-openday.aspx

Earth Sciences - Geology, Geophysics, Environmental Geoscience, Palaeontology & Evolution: http://www.bristol.ac.uk/study/undergraduate/visits/open-days/subject-sessions/earth-sciences/

https://www.brunel.ac.uk/study/schools-and-colleges/Teacher-and-adviser-resources/downloadablematerials

https://www.liverpool.ac.uk/study/undergraduate/virtual-open-day/

https://www.manchester.ac.uk/study/undergraduate/manchester-live/subject-webinars/

https://www.plymouth.ac.uk/about-us/plymouth-on-demand/pod-earth-geography-and-environment

<u>Royal Holloway https://www.royalholloway.ac.uk/studying-here/undergraduate/earth-sciences/earth-climate-and-environmental-change/</u>

https://www.royalholloway.ac.uk/studying-here/undergraduate/earth-sciences/earth-climate-andenvironmental-change/

### Forestry

Forestry involves learning how to manage forests and woodlands for commercial reasons (timber and wood for fuel), as places for recreation and as habitats for wildlife. You could learn about ancient woodlands, the importance of protecting hedgerows or how to manage large commercial plantations. Some courses include arboriculture, the cultivation and care of individual trees. Forestry graduates typically work for The Forestry Commission, private estates, conservation charities and overseas.

- BSC
- PRACTICAL PLACEMENTS
- TIME IN LABS
- PRACTICAL WORK
- FIELD TRIPS
- CONSERVATION
- WOODLAND MANAGEMENT
- ECOLOGY
- ABORICULTURE

#### **Example course modules**

- Forestry in the 21st century
- Ecosystem function and services
- Forest ecology
- Silviculture
- Forest management and inventory
- Forest health
- Environmental management and conversation
- Research methods and GIS
- Forest policy and governance
- Ecosystem functions and services

#### Teaching hours / week

The time you'll spend in lectures and seminars each week will vary from university to university, so use this as a guide.



#### League tables for this subject

The Guardian The Complete University Guide The Times

#### A-levels (or equivalent) usually required

• At least one from biology, chemistry or physics

#### Useful to have

- Business studies
- Environmental science
- geography

#### **Application checklist**

Here's a guide to what to expect from the application process - also check individual university entry requirements, as these may differ.

- January application
- Personal Statement

#### **Career prospects**

Fewer than 100 graduates usually take full first degrees in forestry and arboriculture, so there is not a lot of data to examine – they're a little more commonly taken as foundation degrees, often studied at colleges. But for the chosen few in forestry, there are a handful of specialist roles in forestry management available every year, and this is the degree preferred for those jobs. If you want to find out more specifically about the prospects for your chosen subject, it might be a good idea to go on open days and talk to tutors about what previous graduates from your chosen subject went on to do.

#### **Transferable skills**

Teamwork, Technical ability, Problem solving, Social Skills, Organisation, Numeracy, Communication, Attention to detail, Administration, Analytics, Discipline

#### Jobs where this degree is useful

- Agricultural scientist
- Estates officer
- Farm manager

#### Other real-life job examples

- Agricultural surveyor
- Conservation worker
- Arboricultural manager

#### What employers like about this subject

A degree in agriculture or agricultural management will provide you with subject-specific skills including an understanding of the global, regional and local contexts of agriculture; legal and economic issues in agriculture, sustainability and environmental impact and the principles of operating an agricultural business. You will also gain useful transferable skills in numeracy, communication, IT, team-working, problem-solving and independence and self-motivation. Farming is the most common industry of employment for agriculture graduates, but they also go to work in areas including land and property management, forestry and the manufacture of farm equipment and machinery. Institute of Chartered Foresters

# Geography

Interested in topical issues such as coastal and river management, sustainable energy or regeneration of inner city areas? Geography covers the physical and manmade world around us. Courses can include a mix of human, physical and environmental geography or you can specialise in one of these areas. Students will also commonly collect and analyse their own data on arranged field trips - which might be in far-flung locations, or situated closer to home. Graduate careers are diverse and include environmental consultancy, planning, marketing and overseas development work. Example degrees: You can choose to study straight Geography or a closely related subject, for example geophysics, environmental geosciences, Geology. There is also a strong crossover with Environmental Science.

- BSC
- TIME IN LABS
- BA
- TIME ABROAD
- COURSEWORK-INTENSIVE
- PRACTICAL WORK
- ENVIRONMENTAL
- FIELD TRIPS
- PHYSICAL
- HUMAN

#### **Example course modules**

- Global worlds, global challenges
- Skills and techniques in geosciences
- Physical environments
- Environment and society
- Analysing geographical and environmental data
- Earth systems
- Global climate systems
- Historical cultural geographies
- Theory, space and society
- Urbanism, culture and modernity

#### Teaching hours / week

The time you'll spend in lectures and seminars each week will vary from university to university, so use this as a guide.



#### League tables for this subject

The Guardian The Complete University Guide The Times

In an average week, geography students have about 12 hours of contact time. The course is challenging as there is a large step-up from A-level and the course covers a range of topics, so the skills you need to approach them are varied. However, the feedback is very useful and you will find that you are well supported in reaching the level expected at university. The work is also varied and includes essays, reports, fieldwork, practicals, exams and online exercises. I have found the content very interesting, as it makes you aware of the extent to which geography is relevant to a huge array of issues.

#### 1st year, Durham University

The geography course covers a wide range of content including both physical and human geography modules. The work/ assessment style has varied, from online tests, exams, coursework and primary research (interviews and land-use surveys, scientific practicals) to use of essential statistical programs and other software. The content of this course was very interesting - we studied areas ranging from culture, society and economy to river systems, ecology and glaciers. Communicate with other students rather than rely on lecturers to answer all of your questions (they cannot offer 1-1's as often as other subjects)

#### 1st year, University of Plymouth

As a geography student, the physical side of the course is far more scientific than the human side. The human side features a lot of abstract concepts - some people find this easier than others - but there is quite a split between the two. The experimental aspect of physical geography is good fun and offers real insight to the uses of geography in the real world.

1st year, University of Exeter

#### A-levels (or equivalent) usually required

Geography for most courses

#### Useful to have

- Chemistry
- Biology
- Physics
- Mathematics

#### **Application checklist**

- January application
- Personal statement

#### Top 10 Universities for Geography - Complete University Guide 2021

- Cambridge, Oxford, Durham, Glasgow, St Andrews
- Lancaster, Loughborough, Sussex, Royal Holloway all very high student satisfaction scores
- LSE, Exeter, York, Liverpool Hope all with top graduate prospects

#### Employability

In the world of work, students often go into environment and heritage work, but also to general jobs in areas like marketing, business analysis and management. On the human and social geography side, there is a shortage of students with really good Maths skills, and students from these disciplines are in demand from modern industry. An ability to combine good data handling with good communication and social skills will really help start your career. Geography graduates work for a wide range of employers including government agencies, banks, management consultants and environmental businesses.

#### What employers like about this subject

Subject-specific skills you can gain from geography will depend to an extent on whether you specialise in physical or social geography, but can include an understanding of current theory and practice in fields of geography; how to generate and interpret research data and the development of field skills. It is especially important to develop good maths and statistics skills during a geography degree, as the mix of data and communication skills is particularly useful to employers. Geography graduates work for a wide range of employers including government agencies, banks, management consultants and environmental businesses.

#### **Transferable skills**

Teamwork, Technical ability, Problem solving, Social Skills, Organisation, Numeracy, Communication, Attention to detail, Administration, Analytics, Discipline

#### **Example careers**

- International development worker
- Landscape architect
- Logistics and distribution manager
- Market researcher
- Nature conservation officer
- Sustainability consultant
- Tourism officer

#### Other real-life examples

- Transport planner
- Social Researcher
- Geographic Information Systems (GIS) officer
- Hydrologist
- Financial analyst
- Water disposals officer
- Heritage manager

#### Local market information

#### **Civil Service Fast Stream**

If you enjoy a challenge, want to make a difference and are eager to take on responsibility, consider joining the Civil Service Fast Stream. The Civil Service Fast Stream is an accelerated leadership development programme that provides talented graduates from a range of backgrounds with the experience, skills and knowledge needed to become senior leaders within the Civil Service. You'll gain a variety of experience through different placements or postings in government departments and agencies. may work in roles involving direct contact with the public. Personal statement advice: geography

Geography admissions tutors don't just want to hear about your academics, but also how you pursue your geographical interests outside of school or college. Find out more...

According to Dr David Ockwell, admissions tutor at University of Sussex: 'We get plenty of high achieving students from an academic perspective. What we're also looking for are students that show potential to become the kind of globally engaged, culturally agile graduates we are committed to nurturing here'.

#### Blending your academic and extracurricular interests

'What we especially like is when you clearly articulate ways in which your life experience, either within or outside of school (preferably both), has connected with specific aspects of geography and hence why you are inspired to take your study of the subject on to degree level. The more detail you give on extracurricular interests the better." Dr David Ockwell | Admissions Tutor – University Of Sussex

Of course, those extracurricular interests should be relevant to geography, rather than random other things you do. But given that geography is such a far-reaching subject, this can cover a multitude of activities, interests or experiences. It could also be something you do locally, or somewhere you've travelled in the UK, or overseas.

But whatever it is, don't just say you've done it. What's essential is that you write about it in an interesting and reflective way showing what you've gained from it. That way, you're sure to stand out from the crowd.

#### Show the real you.

The University of Southampton is looking for a similar blend in your personal statement: ' A high quality piece of writing that outlines your interests in geography, your extracurricular pursuits, and something of what makes you distinctive as a person.'

A good way to do this is to write about something that excites you about the subject, whether it's a particular aspect of the syllabus, your wider reading, a project (the EPQ would be relevant if you're doing one), fieldwork, your extracurricular interests – or ideally, a combination of some of those things. The more interesting it is, the more distinctive you will come across as a person.

But don't get too stressed about trying to write the 'right' way:

'As long as it's well presented and enthusiastic, applicants shouldn't worry about saying the 'wrong' thing. However, you should avoid two things. The first is (hopefully!) obvious: you should edit your statement carefully to correct poor presentation, spelling or grammar. Additionally, we would prefer that the statement genuinely comes from you. It should be a reflection of your own interests and aspirations.

'If you've got no idea where to start, you might want to seek advice or look at examples. But then try to write the statement your way. Avoid copying phrases or letting someone else write chunks of it. If you do, it won't sound natural.' Dr Suzanne Reimer | Geography And Environment Admissions Tutor – University Of Southampton

#### More things for geographers to think about

**Wider reading:** London School of Economics is looking for what's motivated you to apply for their course – including wider reading or activities and your interest in 'contemporary geographical problems and their alleviation'. The University of Bristol's website asks for evidence that you have extended your interest in the subject 'beyond formal classroom provision'.

**Uni open days:** these can be a great opportunity to get some specific advice. Subject talks will usually mention what they look for in personal statements or, if not, don't be afraid to ask them face-to-face.

**Talk about particular interests in topics featured in the courses you're applying for:** if regeneration, GIS, tropical savannas, glaciology, coastal zones, tourism or geopolitics fascinate you, write about it in a specific way – avoid bland, obvious phrases like 'I've always enjoyed geography'.

**Specialist geography courses:** if your UCAS choices include specialist areas including development, population, marine or environmental aspects of geography, include evidence of relevant interests. Maybe you've travelled somewhere and taken note of social conditions, read something interesting about migration or marine ecology, or contributed to an environmental debate which has sparked an interest to learn about environmental policy...

Show why you're passionate: as Dr Reimer at Southampton says: 'We are keen to teach students who are fascinated by the subject, so we want you to demonstrate your enthusiasm for it in your statement'.

https://web.ucas.com/ps\_geography

#### **Other routes**

#### Higher apprenticeship (Level 4)

- Associate project manager
- Aviation operations manager
- Financial adviser
- Historic environment advice assistant
- <u>Junior management consultant</u>
- Passenger transport operations manager
- Port marine operations officer
- <u>Professional accounting/Taxation technician</u>

#### Degree apprenticeships (Levels 5 – 7)

- <u>Academic professional</u>
- <u>Accountancy/Taxation professional</u>
- <u>Chartered town planner (degree)</u>
- <u>Cultural heritage conservator</u>
- <u>Environmental practitioner (degree)</u>
- <u>Ecologist (degree)</u>
- Geospatial mapping and science specialist (degree)
- Learning and skills teacher
- <u>Operations/Departmental manager</u>
- Project manager (degree)
- <u>Teacher</u>
- <u>Transport planner (degree)</u>

#### Sources & Links

Geography Subject Guide | Why Study Geography At Uni? | UCAS

https://www.royalholloway.ac.uk/studying-here/undergraduate/earth-sciences/digital-geosciences/

# Geology

Could you picture yourself studying earthquake zones to develop early warning systems, searching for energy resources or analysing fossils to further understand evolution? If so geology could be for you. Geology is the study of how the earth was formed and shaped over time and has applications in environmental research, oil and gas exploration, the water industries, mapping and remote sensing and engineering. This type of course is likely to include practical fieldwork, including abroad.

- BSC
- PRACTICAL PLACEMENTS
- TIME IN LABS
- TIME ABROAD
- PRACTICAL WORK
- FIELD TRIPS
- ENVIRONMENTAL GEOLOGY
- GEOPHYSICS
- ENGINEERING GEOLOGY

#### Example course modules

- Environmental geoscience
- Computing for earth scientists
- Imaging and mapping the Earth
- Sedimentology
- Geochemistry
- Digital geoscience
- Structural geology
- Geodynamics
- Earth materials
- Quantitative methologies

#### Teaching hours / week

The time you'll spend in lectures and seminars each week will vary from university to university, so use this as a guide.



#### League tables for this subject

The Guardian The Complete University Guide The Times

On average on my course (earth science), we have 15-20 hours of contact time per week (lectures and practicals), then we have up to five hours of tutorial time, depending on the person and the college. The course is interesting and there is a variety of options available. A mix of work is required - essays, problem sheets and sometimes presentations. There are lots of field trips which are excellent for learning and getting to know your peers.

#### 3rd year, University of Oxford

My course is very challenging. You do a lot of coursework, especially in third year, but you will come to love it as it boosts your grade. The course is interesting if you enjoy rocks and the processes around them. We have excellent course-specific facilities - a lab which we do microscope work in.

#### 3rd year, University of Bristol

The number of teaching hours is perfect, with the right mix of tutorials and lectures. The content is wide-ranging in the first year, and can be quite challenging - you definitely need to keep up! Work is mostly descriptions of samples, presentations, reports, interpretations of simple maps and field work on the trips. We also have to design a website.

#### 1st year, University of Leicester

#### A-levels (or equivalent) usually required

• Choose two from biology, chemistry, physics and maths

#### Useful to have

- geography
- Geology

#### **Application checklist**

- January application
- Personal statement

#### **Career prospects**

The UK is officially short of geologists of many different kinds, but we produced a few more than usual last year. We're not the only country in need of good geologists, which is why one in nine UK geology graduates left the country in 2012 to work – and the average starting salary for a UK geology graduate getting a job abroad was nearly  $\pm 35,000$  – rising to over  $\pm 50,000$  in Australia - which compares very favourably with other degrees. And with oil, gas and mining all very big business, and geologists vital to those industries, good geologists will be in demand for a while yet.

#### Jobs where this degree is useful

- Geophysicist
- Geologist
- Mudlogger

#### Other real-life job examples

- Contaminated land engineer
- Land surveyor
- Quarry manager

#### What employers like about this subject

Geology students can expect to gain subject-specific skills including an understanding of earth evolution and current planetary processes; the scientific principles underlying earth processes and computing, physics, chemistry and field skills for earth sciences. Transferable skills you can develop will include communication, project management, IT skills, problem-solving, data investigation, high-level numeracy and good research skills. Geology graduates are in demand from a number of industries in the UK and overseas, particularly from the oil and gas industry, but also from mining and quarrying, construction, the water industry, engineering and consultancy, technical testing, government, higher education, museums and the finance industry.

#### Other routes

Degree apprenticeships (Levels 5 – 7)

• Geospatial mapping and science specialist (degree)

#### Sources & Links

Geology Subject Guide | Why Study Geology At Uni? | UCAS

https://www.royalholloway.ac.uk/studying-here/undergraduate/earth-sciences/digital-geosciences/

## **Marine and ocean sciences**

If you are fascinated by marine life or the role oceans play in controlling our climate and shaping our coastline you may be interested in marine biology or oceanography. Courses include core sciences such as biology, chemistry, physics and geology, practical lab work, field trips on research boats and could include diving. These courses prepare you for careers in areas such as research, oil exploration, conservation, environmental monitoring and weather forecasting.

- BSC
- TIME IN LABS
- TIME ABROAD
- PRACTICAL WORK
- RESEARCH-INTENSIVE
- FIELD TRIPS
- MARINE BIOLOGY
- OCEANOGRAPHY
- MARINE ECOLOGY

#### Example course modules

- Marine organisms and ecosystems
- Oceanography
- Marine animal science
- Basic and scientific diving
- Introduction to marine ecology
- The Earth system
- Quantitative earth and ocean science
- IT communication, field and laboratory skills
- Dynamic earth
- Geomorphological processes

#### Teaching hours / week

The time you'll spend in lectures and seminars each week will vary from university to university, so use this as a guide.



#### League tables for this subject

The Guardian The Complete University Guide The Times

Amazing course, with a reasonable amount of lecture time, but a lot expected externally. Quite challenging as it covers such a broad subject.

#### 2nd year, University of Southampton

With oceanography, there is a lot more contact time than with arts degrees. You usually have two hours of lectures per module per week, with labs and boatwork scattered around your timetable. The content is very interesting. A lot of it is repeated through the years, so you get a core knowledge base of transferable information, which is incredibly useful. There are a lot of practical write-ups, both for boatwork and labs. The NOC is very well-equipped for its courses - oceanography, marine biology, geology, geophysics etc. The RV Callista and RV Bill Conway are used for boatwork in the Solent.

2nd year, University of Southampton

#### A-levels (or equivalent) usually required

• Choose two from biology, chemistry, physics and maths

#### Useful to have

- geography
- Geology

#### **Application checklist**

- January application
- Personal statement

#### **Career prospects**

The recession has been difficult for some environmental scientists, with jobs and funding cuts, so bear that in mind when you look at the figures. This is also one of those subjects where graduates don't usually go to London to work, so if you want to work in East Anglia or the South West – or overseas – this might be a good subject. Graduates tend to get jobs in the environment, in surveying and as lab technicians, but, like a lot of other subjects, if you want a job in research, start planning to take a doctorate. The stats also include a small number of oceanographers and meteorologists.

#### Jobs where this degree is useful

- Oceanographer
- Marine surveyor
- Environmental officer
- Geophysicist

#### What employers like about this subject

Students of marine and ocean sciences can gain subject-specific skills in the biology, physics, chemistry and geology of the marine environment; in oceanographic and marine field skills and training in experimental practice and design. You'll also gain a whole suite of sought-after transferable skills including numeracy, communication, data handling, team-working and problem-solving skills. Marine and ocean science graduates work in industries including oil and gas, scientific research, higher education, technical consultancy, museums and zoos and government.

#### **Sources & Links**

#### **GRADUATE PROSPECTS**

WHICH? STUDENT SURVEY

#### HESA & HEPI-HEA

https://targetcareers.co.uk/uni/degree-subject-guides

https://www.whatuni.com/advice/guides/subject-guides/

https://www.thecompleteuniversityguide.co.uk/courses

https://universitycompare.com/guides/subject/

https://www.timeshighereducation.com/student/advice/which-subject-should-you-study-university

https://targetcareers.co.uk/career-sectors

Environmental Science	<ul> <li>Careers booklet.</li> <li>Higher Education data for Biology and related courses, including: Environmental Science and Engineering.</li> <li>Information and advice on apprenticeships.</li> <li>Biology CREST Award portfolio course information.</li> <li>Access to New Scientist and Review Magazine e.g. Biological Sciences.</li> </ul>	BHASVLE – Environmental Science/ BHASVLE – Biology > Employability folder/ BHASVLE – library /Social media
Geography	<ul> <li>Choose Geography at university.</li> <li>General advice about careers in this subject.</li> <li>Stories of ex-BHASVIC Geography students, their degrees and their careers.</li> <li>Links to the Royal Geographical Society careers and HE pages.</li> </ul>	BHASVLE/Geography/Progression Week - Career Paths in Geography

In Sept 2022 55 BHASVIC students went onto study Geography and Environmental Science related degrees at universities including Bath Spa, Bournemouth, Bristol, UWE, Brunel, Cardiff University, Cardiff University, Kingston, Liverpool Hope, Loughborough, Manchester Met, Newcastle University, Queen Mary, Swansea University, UCL, Bristol, UEA, Exeter, Glasgow, Gloucestershire, Leeds, Liverpool, Manchester, Portsmouth, Sheffield, Southampton, Sussex, Warwick, Worcester

#### Examples of degrees and combined degrees for BHASVIC student's 2019-22 entry

- Biology and Sustainable Development
- BSc Global Environmental Change and Sustainability with Year Abroad
- Business and Environment
- Conservation Biology
- Environmental Geography with a Year of Study Abroad
- Ecology and Conservation Biology with Placement Year
- Ecology and Conservation Biology
- Ecology and Wildlife Conservation with Foundation
- Environmental Geoscience
- Economic Studies and Global Sustainable Development
- Engineering Geology and Geotechnics
- Environment and Business
- Environmental Geoscience
- Environmental Management
- Environmental Science
- Environmental Science with Placement
- Environmental Sciences with a Year Abroad
- Environmental Management and Sustainability
- Environmental Sciences
- Flood and Coastal Engineering
- Geography
- Geography (Human)
- Geography (including Foundation Year)
- Geography (Science)
- Geography and International Development with a Year Abroad
- Geography with a Language
- Geography with a Year Abroad
- Geography with Environmental Mathematics
- Geography with Innovation
- Geography with International Study
- Geography with Study Abroad
- Geology (Environmental Geoscience)
- Geology with a Year in Industry
- Geophysics
- Geology
- Global Sustainable Development
- Human Geography
- Human Geography with Placement Year
- Human Geography and Planning
- Human Geography with Study Abroad
- Humanities Foundation Year
- International Development

- International Relations and Global Development
- Land Economy
- Liberal Arts
- Liberal Arts and Sciences
- Marine Biology
- Marine Biology and Coastal Ecology
- Marine Environmental Science
- Meteorology and Climate
- Ocean Science and Marine Conservation
- Ocean Exploration and Surveying
- Physical Geography with a Year in Industry
- Renewable Energy
- Sustainability and Environmental Management
- Urban Planning and Real Estate
- Urban Planning, Design and Management
- Wildlife Conservation
- Wildlife Conservation with Zoo Biology
- Wildlife Ecology and Conservation Science