

BSc (Hons) Palaeobiology and Palaeoenvironments (FC69)

Earth Sciences looks to the past, present and future of planet Earth. Unravelling the disappearance of dinosaurs, finding acceptable ways to dispose of nuclear waste, predicting earthquakes and volcanic eruptions... Earth Sciences seeks to answer all sorts of issues and conundrums, making it a fascinating area of study. This particular degree course emphasises the study of ancient plants and animals, and places the evolution of life within the context of environmental change through deep time. You will develop an understanding of the techniques used to investigate the interactions between long-extinct organisms and their environments, from both geological and recent perspectives.



[Follow Earth Sciences at Birmingham on Twitter \(https://twitter.com/geology_bham\)](https://twitter.com/geology_bham)

[Find out more about Palaeobiology at Birmingham \(/research/activity/geosystems/themes/palaeobiology/index.aspx\)](/research/activity/geosystems/themes/palaeobiology/index.aspx)

[Study here and find out why the University of Birmingham was awarded The Times and The Sunday Times University of the Year 2013-14 \(http://www.birmingham.ac.uk/news/latest/2013/09/20-sep-Birmingham-announced-as-University-of-the-Year.aspx\)](http://www.birmingham.ac.uk/news/latest/2013/09/20-sep-Birmingham-announced-as-University-of-the-Year.aspx)

Course fact file

UCAS code: FC69

Duration: 3 years

Places Available: 109 (all Geology courses)

Applications in 2013: 646

Typical Offer: ABB ([More detailed entry requirements and the international qualifications accepted can be found in the course details \(? OpenSection=EntryRequirements\)](#))

Start date: September

Related courses

[BSc \(Hons\) Geology \(F600\) \(/undergraduate/courses/gees/geology.aspx\)](/undergraduate/courses/gees/geology.aspx)

[MSci \(Hons\) Geology with an International Year \(/undergraduate/courses/gees/geology-international.aspx\)](/undergraduate/courses/gees/geology-international.aspx)

Contact

General admissions enquires:

Student Recruitment Team

Tel: +44 (0)121 414 6162

Email: uggeologyadmissions@contacts.bham.ac.uk (<mailto:uggeologyadmissions@contacts.bham.ac.uk>)

[School of Geography, Earth and Environmental Sciences \(/schools/gees/index.aspx\)](/schools/gees/index.aspx)

Details

Studying this degree course will give you a rigorous training in Earth Sciences, with a particular emphasis on palaeobiology, the study of ancient life. The biology aspect of the programme will enhance your understanding of evolutionary processes and of the environmental controls on species distribution. Throughout all three years, two-thirds of your time is spent studying Earth Sciences, with the other third spent studying relevant aspects of biology. All first year modules are compulsory, with a level of choice in the second year and a range of optional modules available in the third year.

Firm emphasis is placed on project work, with an extended field and laboratory based project of your choice, as well as a palaeobiological dissertation.

In addition to lectures and practical classes, you can look forward to fieldwork training in palaeobiological and geological techniques. This work is undertaken both in the UK and abroad, and is assessed by means of reports and presentations. Assessment will also involve examinations, project work and class tests.

Studying this course will provide you with opportunities for employment as a professional palaeobiologist engaged in further research or museum works (see www.palass.org (<http://www.palass.org>) for further careers), or as an **applied palaeontologist** (</postgraduate/courses/taught/gees/micropalaeontology.aspx>)/biostratigrapher within an oil company. Your core training in geological processes will be appropriate also for a potential career within the mainstream geoscience field if this is the career path you'd like to take.



Why study this course

Earth Sciences at Birmingham combines a proud history with an exciting future. Founded in 1881 by Professor Charles Lapworth, one of the pioneers of geological science, we immediately established a reputation for teaching and research excellence.

At Birmingham you are taught by academics who are world-leading experts in their fields. The School undertakes research of international significance in a broad range of topics from Palaeoclimate modelling through Magma Emplacement Mechanisms to Hydrogeology and Palaeobiology. In these fields and others Birmingham academics are making a major contribution to our understanding of the planet's environment, both past and present. This research influences the teaching that takes place and means that the content of our courses reflect the very latest advances and are at the cutting edge of Earth Science.



Modules

Year 1

Core modules

- [Earth Systems and Sedimentary Rocks \(/schools/gees/courses/undergraduate/modules/earth-sciences/earth-systems-and-sedimentary-rocks.aspx\)](/schools/gees/courses/undergraduate/modules/earth-sciences/earth-systems-and-sedimentary-rocks.aspx)
- [Earth History \(/schools/gees/courses/undergraduate/modules/earth-sciences/earth-history.aspx\)](/schools/gees/courses/undergraduate/modules/earth-sciences/earth-history.aspx)
- [Introduction to Palaeontology \(/schools/gees/courses/undergraduate/modules/earth-sciences/introduction-to-palaeontology.aspx\)](/schools/gees/courses/undergraduate/modules/earth-sciences/introduction-to-palaeontology.aspx)
- [Geological Structures and Tectonics \(/schools/gees/courses/undergraduate/modules/earth-sciences/geological-structures-and-tectonics.aspx\)](/schools/gees/courses/undergraduate/modules/earth-sciences/geological-structures-and-tectonics.aspx)

- [Field Skills I \(/schools/gees/courses/undergraduate/modules/earth-sciences/field-skills-i.aspx\)](#)
- [Topics in Geology \(/schools/gees/courses/undergraduate/modules/earth-sciences/topics-in-geology.aspx\)](#)
- [Ecology and Data Analysis \(/schools/gees/courses/undergraduate/modules/earth-sciences/ecology-and-data-analysis.aspx\)](#)
- [Earth Materials and Internal Processes \(/schools/gees/courses/undergraduate/modules/earth-sciences/earth-materials-and-internal-processes.aspx\)](#)
- Introduction to Evolution and Animal Biology

Year 2

Compulsory modules

- [Field Skills II for Palaeobiology and Palaeoenvironments \(/schools/gees/courses/undergraduate/modules/earth-sciences/field-skills-ii-for-geology-and-physical-geography-palaeobiology-and-palaeoenvironments.aspx\)](#)
- [Sedimentology \(/schools/gees/courses/undergraduate/modules/earth-sciences/sedimentology.aspx\)](#)
- [Environmental and Evolutionary Palaeobiology \(/schools/gees/courses/undergraduate/modules/earth-sciences/environmental-and-evolutionary-palaeobiology.aspx\)](#)
- [Research Methods and Project Planning for Palaeobiology and Palaeoenvironments \(/schools/gees/courses/undergraduate/modules/earth-sciences/research-methods-and-project-planning-for-palaeobiology-and-palaeoenvironments.aspx\)](#)
- [Resources of the Earth \(/schools/gees/courses/undergraduate/modules/earth-sciences/resources-of-the-earth.aspx\)](#)

Optional modules

- [Reconstructing Quaternary Environments \(/schools/gees/courses/undergraduate/modules/environmental-science/reconstructing-quaternary-environments.aspx\)](#)
- [Geomorphological Processes \(/schools/gees/courses/undergraduate/modules/environmental-science/geomorphological-processes.aspx\)](#)
- [Ecological Systems \(/schools/gees/courses/undergraduate/modules/environmental-science/ecological-systems.aspx\)](#)
- [Human Evolution, Adaptation and Behaviour \(/schools/gees/courses/undergraduate/modules/earth-sciences/human-evolution-adaptation-and-behaviour.aspx\)](#)
- [Animal Sensory Systems, Neurobiology and Behaviour \(/schools/gees/courses/undergraduate/modules/earth-sciences/animal-sensory-systems-neurobiology-and-behaviour.aspx\)](#)

Year 3

Compulsory modules

- [Palaeobiology and Palaeoenvironments Major Project \(/schools/gees/courses/undergraduate/modules/earth-sciences/palaeobiology-and-palaeoenvironments-major-project.aspx\)](#)
- [Basin Evolution and Neotectonics \(/schools/gees/courses/undergraduate/modules/earth-sciences/basin-evolution-and-neotectonics.aspx\)](#)

Optional modules

- [Sedimentary Basin Analysis \(/schools/gees/courses/undergraduate/modules/earth-sciences/sedimentary-basin-analysis.aspx\)](#)
- [Evolution of Vertebrates \(/schools/gees/courses/undergraduate/modules/earth-sciences/evolution-of-vertebrates.aspx\)](#)
- [Micropalaeontology \(/schools/gees/courses/undergraduate/modules/earth-sciences/micropalaeontology.aspx\)](#)
- [Climates of the Past \(/schools/gees/courses/undergraduate/modules/earth-sciences/climates-of-the-past.aspx\)](#)

Evolution stream

- [Conservation Biology \(/schools/gees/courses/undergraduate/modules/environmental-science/conservation-biology.aspx\)](#)
- [Human Evolution \(/schools/gees/courses/undergraduate/modules/earth-sciences/human-evolution.aspx\)](#)
- [Adaptation to Changing Environments \(/schools/gees/courses/undergraduate/modules/environmental-science/adaptation-to-changing-environments.aspx\)](#)

Ecology stream must take the following:

- [Environment and Landscape Change \(/schools/gees/courses/undergraduate/modules/environmental-science/environment-and-landscape-change.aspx\)](#)
- [Landscape and Urban Ecology \(/schools/gees/courses/undergraduate/modules/environmental-science/landscape-and-urban-ecology.aspx\)](#)

Please note that modules and programme structures may be subject to variation

Fees and funding

Standard fees (<http://www.birmingham.ac.uk/students/ug/courses/fees/standard>) apply

Learn more about **fees and funding** ([/undergraduate/fees/loans.aspx](#))

Scholarships

Learn more about our **scholarships and awards** ([/undergraduate/fees/funding/index.aspx](#))

Entry requirements

Number of A levels required: 3

Typical offer: ABB

Required subjects and grades: Biology and one other science at A Level. Science subjects can be any from: Chemistry, Computing, Electronics, Environmental Studies, Geography, Geology, Maths, Further Maths, Physics and Statistics. Grade C in each of GCSE English and Maths is also required.

General Studies: We do not accept Citizenship Studies, Communication and Culture, Critical Studies, Critical Thinking, General Studies, Global Perspectives, Science in Society and World Development.

Additional information:

Unconditional offers will be made to high-quality applicants who are predicted AAA or above at A level. For details see the **Unconditional Offer Scheme 2015** (<http://www.birmingham.ac.uk/undergraduate/courses/unconditional-offer-scheme-2015.aspx>).

Unconditional offers are based on:

- A Level predictions of AAA +
- AS results of at least ABB
- 5 GCSEs at grade A including English, Maths and a Science
- 2 GCSEs at grade B
- Academic reference

- Personal statement

Other qualifications are considered – see [entry requirements \(http://www.birmingham.ac.uk/students/ug/requirements\)](http://www.birmingham.ac.uk/students/ug/requirements) for full details.

International students:

International Baccalaureate Diploma: 34 points with 6, 5, 5 at HL. To include Biology and another science at HL. 5 points in each of SL English and Maths if not offered at GCSE or equivalent.

Standard English language requirements apply

Learn more about [international entry requirements \(http://www.birmingham.ac.uk/students/ug/requirements/international\)](http://www.birmingham.ac.uk/students/ug/requirements/international)

Depending on your chosen course of study, you may also be interested in the Birmingham Foundation Academy, a specially structured programme for international students whose qualifications are not accepted for direct entry to UK universities. Further details can be found on the [foundation academy web pages \(http://www.birmingham.ac.uk/students/foundation-academy/Pathways/index.aspx\)](http://www.birmingham.ac.uk/students/foundation-academy/Pathways/index.aspx).

How to apply

Apply through UCAS at [www.ucas.com \(http://www.ucas.com\)](http://www.ucas.com)

Learn more about [applying \(http://www.birmingham.ac.uk/students/ug/courses/apply\)](http://www.birmingham.ac.uk/students/ug/courses/apply)

Key Information Set (KIS)

Key Information Sets (KIS) are comparable sets of information about full- or part-time undergraduate courses and are designed to meet the information needs of prospective students.

All KIS information has been published on the Unistats website and can also be accessed via the small advert, or 'widget', below. On the [Unistats website \(http://unistats.direct.gov.uk\)](http://unistats.direct.gov.uk) you are able to compare all the KIS data for each course with data for other courses.

The development of Key Information Sets (KIS) formed part of HEFCE's work to enhance the information that is available about higher education. They give you access to reliable and comparable information in order to help you make informed decisions about what and where to study.

The KIS contains information which prospective students have identified as useful, such as student satisfaction, graduate outcomes, learning and teaching activities, assessment methods, tuition fees and student finance, accommodation and professional accreditation.

Learning and teaching

Your learning will take place in a range of different settings, and in addition to lectures this course involves extensive fieldwork, practical work and tutorials.

 100% of our students think that our staff are good at explaining things 2014 National Student Survey

You will have access to a comprehensive support system throughout your time here that will assist and encourage you, including personal tutors and welfare tutors who can help with both academic and welfare issues.

The most recent assessment by the Higher Education Funding Council for England (HEFCE), who rate the standard of teaching in university departments, scored us here in Earth Sciences as 'excellent' – the highest possible grade, something which are proud of and continue to focus on each year.

We also offer excellent facilities for undergraduate study, with state-of-the-art equipment and specialist computer facilities. In 2013 our Earth Imaging Lab was fitted out with a new suite of PCs all with industry standard software, worth £0.5m a year. You will also have access to the renowned Lapworth Museum of Geology.

As a Birmingham student you are part of an academic elite and will learn from world-leading experts. At Birmingham we advocate an enquiry based learning approach, from the outset you will be encouraged to become an independent and self-motivated learner, qualities that are highly sought after by employers. We want you to be challenged and will encourage you to think for yourself.

To begin with you may find this way of working challenging, but rest assured that we'll enable you to make this transition. You will have access to a comprehensive support system that will assist and encourage you, including personal tutors and welfare tutors who can help with both academic and welfare issues, and a formal transition review during your first year to check on your progress and offer you help for any particular areas where you need support.

Our Academic Skills Centre also offers you support with your learning. The centre is a place where you can develop your mathematical, academic writing and general academic skills. It is the centre's aim to help you to become a more effective and independent learner through the use of a range of high-quality and appropriate learning support services. These range from drop-in sessions with support with mathematics and statistics based problems provided by experienced mathematicians, to workshops on a range of topics including note taking, reading, writing and presentation skills.

Personal Tutor

From the outset, you will be assigned your own Personal Tutor who will get to know you as you progress through your studies, providing academic and welfare advice, encouraging you and offering assistance in any areas you may feel you need extra support to make the most of your potential and your time here at Birmingham.

Fieldwork

Fieldwork is an essential element of our degree programmes, and Earth Sciences at Birmingham has an outstanding reputation for providing its students with high quality field training.



[Take virtual tours of some of our facilities \(http://www.birmingham.ac.uk/schools/gees/facilities\)](http://www.birmingham.ac.uk/schools/gees/facilities)

[Video transcript here \(http://www.birmingham.ac.uk/accessibility/transcripts/les/fieldwork-gees.aspx\)](http://www.birmingham.ac.uk/accessibility/transcripts/les/fieldwork-gees.aspx)

As a single honours student, you will spend approximately 80 days in the field during your degree. On the Geology and Physical Geography or Palaeobiology and Palaeoenvironments programmes you will spend approximately 40 days in the field.

Because it is such an important part of our programmes, fieldwork is arranged with the majority undertaken during term time. In each of the first two terms, a full week is dedicated to field studies and associated work. Many fieldtrips are residential, visiting a variety of locations such as Pembrokeshire, the Scottish Highlands and southern Spain.

During these courses you will receive rigorous training in field techniques, including both group and individual work, and your confidence, ability and experience in the subject will grow with each successive piece of fieldwork.



Field training at Birmingham culminates in a project which involves up to six weeks field work in an area of your choice. You will work in areas adjacent to those of your classmates and share accommodation, usually in the UK, but may also find yourself working abroad. In recent years, our students have undertaken projects in countries as diverse as Ireland, France, Spain, Italy, Austria, Switzerland, Norway, Romania and the USA. Part of this work takes place in term-time at the end of your second year. The data and resulting report form a significant part of your final degree.

Our students find fieldwork particularly enjoyable. In addition to the obvious geological benefits, it provides you with an opportunity to get to know your fellow students and staff and so feel at home in our friendly department.



Find out more about [fieldwork costs and funding \(http://www.birmingham.ac.uk/schools/gees/courses/undergraduate/fieldwork.aspx\)](http://www.birmingham.ac.uk/schools/gees/courses/undergraduate/fieldwork.aspx).

Assessment methods

Studying at degree-level is likely to be very different from your previous experience of learning and teaching at school or college. You will be expected to think, discuss and engage critically with your subject and find things out for yourself. We will support you in making this transition to a new style of learning, and the way that you are assessed during your studies will help you develop the essential skills you need to make a success of your time at Birmingham.

In addition to lectures, our degrees in Geology involve extensive fieldwork, practical work and tutorials. You'll be assessed in a variety of ways, and these may be different with each module that you take. You can expect to take examinations, make oral presentations, as well as carry out regular project work, practical and field-based exercises.

During your first year you will undergo a formal transition review to see how you are getting on and if there are particular areas where you may need support. Your personal tutor who is based in the School can help with any academic issues you encounter.

At the beginning of each module, you'll be given information on how and when you'll be assessed for that particular programme of study. You'll receive feedback on each assessment within four weeks, so that you can learn from and build on what you have done.

Related research

- [Geosystems research - School of Geography, Earth and Environmental Sciences \(/research/activity/geosystems/index.aspx\)](http://www.birmingham.ac.uk/research/activity/geosystems/index.aspx)

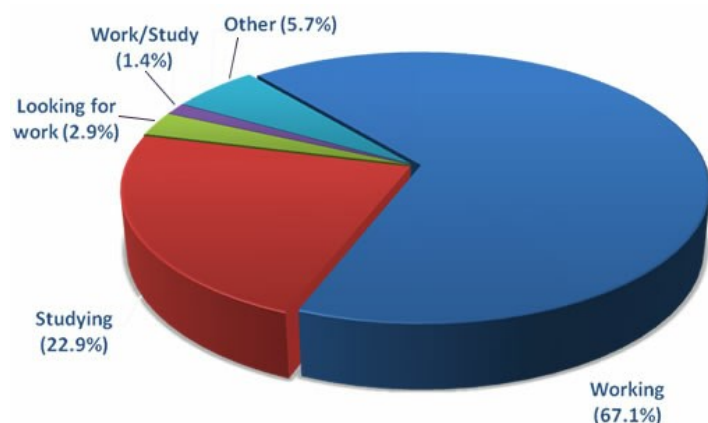
Employability

The education you will receive by studying our programme, with an emphasis on rigorous observation, data collection and interpretation, means that job prospects for you as an Earth Sciences graduate are excellent.

91.6% employability rate

2012/13 Destination of Leavers from Higher Education survey (DLHE) - The DLHE survey is conducted 6 months after graduation

Surveys of recent graduates have shown that significantly more of our graduates gain employment in geology and geology-related areas than those of other UK universities. Geology careers are extremely diverse, with students going into a wide range of professions. Increasing numbers of our graduates are employed in environmental planning, land remediation hydrogeology and pollution control. Opportunities in some fields, notably the oil and minerals industries, vary from year to year. Other employers include the British Geological Survey (BGS), local authorities, museums, government organisations and engineering and construction companies. Other graduates decide on a career in teaching either from primary right through to further education. Many students go on to careers around the world in locations including Australia, New Zealand and Canada - many also choose to stay in the UK of course!



Earth and Environmental Sciences - undergraduate destinations 2012/13

[Find out more about career opportunities in Earth and Environmental Sciences](#)

Recent graduates have found employment in a wide range of fields. Our most recent student survey showed that many students from Earth Sciences were engaged in work or study directly related to their first degree, with the remainder choosing career paths in areas outside of the subject where the transferable skills gained on the programme prove invaluable.

Increasingly, a successful career in geology is helped by having a higher qualification. Nearly half of our graduates go on to further study before taking a job, either by completing a one-year MSc course or researching for a PhD.

Preparation for your career should be one of the first things you think about as you start university. Whether you have a clear idea of where your future aspirations lie or want to consider the broad range of opportunities available once you have a Birmingham degree, our [Careers Network \(http://www.birmingham.ac.uk/students/careers/careers-network.aspx\)](http://www.birmingham.ac.uk/students/careers/careers-network.aspx) can help you achieve your goal.

Our unique careers guidance service is tailored to your academic subject area. Our team source exclusive [work experience opportunities \(http://www.birmingham.ac.uk/students/careers/work-experience.aspx\)](http://www.birmingham.ac.uk/students/careers/work-experience.aspx) to help you stand out amongst the competition, with [mentoring \(http://www.birmingham.ac.uk/generic/internships/mentoring/index.aspx\)](http://www.birmingham.ac.uk/generic/internships/mentoring/index.aspx), [global internships \(http://www.birmingham.ac.uk/generic/internships/index.aspx\)](http://www.birmingham.ac.uk/generic/internships/index.aspx) and placements available to you. Once you have a career in your sights, one-to-one support with CV's and job applications will help give you the edge. In addition, our employer-endorsed award-winning [Personal Skills Award \(PSA\) \(http://www.birmingham.ac.uk/students/careers/psa.aspx\)](http://www.birmingham.ac.uk/students/careers/psa.aspx) recognises your extra-curricular activities, and provides an accredited employability programme designed to improve your career prospects.

[Hear from our students - find out what other students have gone on to do. \(http://www.birmingham.ac.uk/schools/gees/our-students/undergraduate/index.aspx\)](http://www.birmingham.ac.uk/schools/gees/our-students/undergraduate/index.aspx)

Additional accreditation

No



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UNISTATS ▶

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Full time

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