

Earth Sciences at Bristol

Visit days

Rich Pancost, *Head of School*
Laura Robinson, *Admissions Tutor*
Mary Benton, *Senior Tutor*

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Welcome to the School of Earth Sciences

- The Earth Science disciplines are exciting, they open up huge numbers of careers, they are important for our future world and they pay well.
- Our School is exceptionally well regarded, globally
- We are small, supportive and collegial, so you will get to know fellow students and staff
- Our courses have variety, opportunity and flexibility.
- Bristol is an amazing city full of opportunity.
- We have invested a lot in education. For example, we will pay for all your field work costs within your fees.



Geology

Environmental geoscience

Every subject is inspired by one major challenge –
the central role of the Earth Sciences in
understanding the history and nature of our planet
and our future on it

Geophysics

Palaeontology and Evolution

All degrees in Geology, Geophysics and Environmental Geoscience are accredited by the Geological Society of London, the UK's professional body for the Earth Sciences.

Palaeontology and Evolution degrees are in the process of accreditation.

What will your study look like?



An Earth Scientist learns in *many* different ways...

- Lectures: about 9 hours per week.
- Practicals (Lab, Computational, Numerical, etc): an average of 3 x 3 hours every week, in small groups and teams
- Tutorials with a tutor who follows your careers throughout your degree
- Fieldwork: 50-90 days depending on degree programme.
- Feed back hours and revision sessions within each course
- **Independent Study (important, and a chance to explore the subject)**

Initially you work as a class under supervision



Our first year students on the Somerset Coast

....then in small groups



....and finally, independently

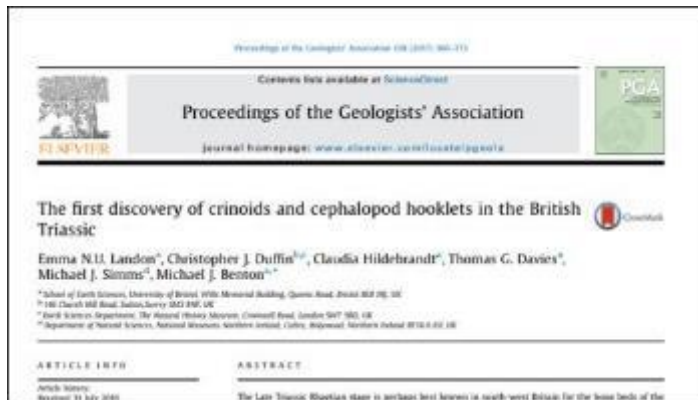


Students as scientists and citizens

- Students learn by actively solving real problems – not passive learning
- This is crucial to our students' subsequent successes in industry, policy-making and society
- Undergraduate research volunteer programme where students can join one of the labs to do a defined project
- Placements and internships in the summer
- Group projects in Year 3 and individual projects in Year 4
- Produces some spectacular results and papers
- Springboard to high-flying careers



Student projects can even be published



Nat Hazards (2015) 76:1781–1806
DOI 10.1007/s10669-014-1572-y

ORIGINAL PAPER

Assessing infrequent large earthquakes using geomorphology and geodesy: the Malawi Rift

Michael Hodge · Juliet Biggs · Katsuichiro Goda · Willy Aspinall

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Abstract In regions with large, mature fault systems, a characteristic earthquake model may be more appropriate for modelling earthquake occurrence than extrapolating from a short history of small, instrumentally observed earthquakes using the Gutenberg–Richter scaling law. We illustrate how the geomorphology and geodesy of the Malawi Rift, a region with large seismogenic thicknesses, long fault scarps, and slow strain rates, can be used to assess hazard probability levels for large infrequent earthquakes. We estimate

Ocean mixing and ice-sheet control of seawater $^{234}\text{U}/^{238}\text{U}$ during the last deglaciation

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Seawater $^{234}\text{U}/^{238}\text{U}$ provides global-scale information about continental weathering and is vital for marine uranium-series geochronology. Existing evidence supports an increase in $^{234}\text{U}/^{238}\text{U}$ since the last glacial period, but the timing and amplitude of its variability has been poorly constrained. Here we report two seawater $^{234}\text{U}/^{238}\text{U}$ records based on well-preserved deep-sea corals from the low-latitude Atlantic and Pacific Oceans. The Atlantic $^{234}\text{U}/^{238}\text{U}$ started to increase before major sea-level rise and overshot the modern value by 3 per mil during the early deglaciation. Deglacial $^{234}\text{U}/^{238}\text{U}$ in the Pacific converged with that in the Atlantic after the abrupt resumption of Atlantic meridional overturning. We suggest that ocean mixing and early deglacial release of excess ^{234}U from enhanced subglacial melting of the Northern Hemisphere ice sheets have driven the observed $^{234}\text{U}/^{238}\text{U}$ evolution.

Our community and its values



The community



- ~270 undergraduates and ~40 taught postgraduates, supported by...
- 38 academic staff, active researchers at highest level internationally whose research informs their teaching.
- 20 friendly and well-trained support staff who specifically look after students, as well as preparing specimens, lab practicals etc.
- ~60 research fellows and ~90 PhD students

We are international and we are diverse (as are our partners and stakeholders, collaborators and friends) – equality, inclusion and respect are central to our values.



bristol.ac.uk

Wellbeing and independence



Our setting

- Academic home – workspaces, social spaces, library
- Early sense of belonging – pre-sessional weekend to meet course and residence mates
- Everyone is known - small community, c. 80 undergrads per year and 38 academic staff
- c. 20 contact hours per week – we notice them
- Satisfied students (97% in 2019 NSS) taught by staff who are good at explaining and make courses interesting (100% in 2019 NSS)

Our approach is to take you on a journey towards independence, leadership, and initiative
– but at a pace appropriate for each individual

- A robust support system
- Frequent tutorials
- Class learning... then group... then individual
- All underpinned by a small, close community

Support system

- University of Bristol on-site Wellbeing Officers
- Every student has a pastoral tutor and regular tutorials
- We have a Senior Tutor and a Deputy Tutor
- Our field courses are numerous and ensure close contact between staff and students – and they start with a pre-sessional field weekend in Year one
- Student societies provide critical, additional community support

We have robust structures to ensure the student voice is heard

- Senior Tutor, Programme Directors and Head of School are always available – as are tutors
- Student comment forms on taught units
- Student-Staff Liaison Committee
- Year Group Meetings three times a year

These are all in addition to the central University support

Student voice

- We listen to our students and value their opinions
- Involved in liaison committees at School, Faculty and University level
- Three year-group meetings per year
- Inform our decision making and curriculum building
- High NSS scores for staff valuing students' views and opinions on courses

**An earth sciences career is fun,
life-changing, fulfilling....and
full of opportunities**



Geologists are among the most critical UK skill areas

According to the [Office for National Statistics \(ONS\)](#), the industries with the biggest percentage growth in number of employees in 2017 and 2018 were:

1. electricity, gas, steam and air conditioning supply industry
2. real estate activities
3. water supply, sewerage and waste
4. professional, scientific and technical roles
5. mining and quarrying

UK SKILLS SHORTAGE OCCUPATION 13 GEOSCIENTIST

Posted by: Lynette Daly | April 17, 2018 | in Blog, Landbased, Equine and Animal Care, Science and Research



This is the 13th instalment in a series of blogs that provide information on occupational roles that employers struggle to fill. In this article we take a look at the role of the geoscientist.

In this series of blogs, we will be taking a look at skills shortages in the UK as published by [workpermit.com](#), a leading international immigration consultancy firm. The occupations that we will cover in this series are listed as those where the skills shortage is such that employers struggle to fill the roles to such an extent that jobs on this list do not need to be advertised before they can be offered to a non-EEA (European Economic Area) immigrant.

We make sure our students are prepared to take advantage of those opportunities

- Careers-based tutorials throughout degree
- Careers workshops from the outset of the degree
- Careers fairs
- Visits from recent graduates talking about their jobs, companies etc.
- Frequent prompting from Careers Officer...
- Practice interviews, and help with CVs

A selection of our recent graduate destinations

- Oil and gas industries
- Mining
- Engineering and geotechnics
- Risk and hazard analysis
- Environmental consultancy
- Policy and government
- Education
- Scientific research
- Geophysicist
- Archaeologist
- Publishing
- Water Management
- Recruitment
- Management
- PR and Marketing
- Banking
- Meteorology
- Armed Forces Officers
- Petroleum consultancy
- Soil Sciences
- Media
- Tax associate
- Accountancy

Many students go on to further education, including Masters and PhDs at top universities, including Bristol.

A Global Civic University:

Bristol is an extraordinary place to live and learn and we are strongly connected to it



Some recent and current accolades

- UK Most Livable City and UK Kindest City
- National Geographic Traveller - 11th Coolest Destination in the World
- Rough Guide's Coolest City in Britain
- Forever Sports Magazine – One of the top 10 cities to live in - in the world
- NY Times – 52 Places to visit in the world



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